

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:17  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**C Number:** C55221B  
**Lock Date:** Not Entered.  
**Cage Range:** All  
**Date Range:** All  
**Reasons For Removal:** All  
**Removal Date Range:** All  
**Treatment Groups:** All  
**Study Gender:** Both  
**PWG Approval Date:** 02/27/1990

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 1

TRT#: 1

SEX: Male

DAY ON TEST: 718

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870271

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	Trachea	* Urinary Bladder	

MISSING

Mammary Gland

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Marked
Note: ATROPHY	TGLs = 1-15		
Note: CATARACT	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 6-1 ]			
* Liver	Hepatocyte	Degeneration	Cystic, Marked
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 8-4		
Note: DEGEN	TGLs = 7-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-17,9-6,10-2,13-5,13-7		
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

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<b>ANIMAL ID:</b> 1	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 718
	<b>DOSE:</b> 0 PPM	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> 870271

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-16		
Stomach	Forestomach	Acanthosis	Moderate
	Glandular	Ulcer	Moderate
Note: ULCER	TGLs = 12-18		
Note: ACANTHOSIS	TGLs = 11-18		
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
Note: ATROPHY	TGLs = 4-10		
Note: ADENOMA	TGLs = 5-10		
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Mild

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PRIMARY CAUSE OF DEATH

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 729 <b>HISTO:</b> 870272
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Moderate
Note: 1991 CONVERSION DISCREPANCY. ORIGINAL DIAGNOSIS SITE NOT SPECIFIED.			
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-15		
Note: CATARACT	TGLs = 1-15		
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Clear Cell Focus	
Note: CLEAR CL FOCUS	TGLs = 7-17,8-18		
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION	TGLs = 4-16		
* Pituitary Gland	Pars Distalis	Hemorrhage	Moderate
	Pars Distalis	Hyperplasia	Moderate
Note: HEMORRHAGE	TGLs = 6-7		
Note: HYPERPLASIA	TGLs = 5-7		
Seminal Vesicle		Atrophy	Moderate
Stomach	Glandular	Dysplasia	Mild
Note: DYSPLASIA	TGLs = 9-19		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10,3-10		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:17

**First Dose M/F:** NA / NA

**Lab:** BAT

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<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 729 <b>HISTO:</b> 870272
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

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<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 417 <b>HISTO:</b> 870273
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Testes
* Thymus	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder			

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**OBSERVATIONS**

* Brain		Compression	
		Hydrocephalus	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Inflammation	Chronic Active, Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 1-14		

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PRIMARY CAUSE OF DEATH -

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Animal Note: CAUSE OF DEATH WAS PITUITARY TUMOR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b> 870274
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	
* Epididymis	Serosa	Mesothelioma Benign	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-15		
Note: ATROPHY	TGLs = 1-15		
* Heart		Leukemia Mononuclear	
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Marked
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: HYPERPLASIA	TGLs = 5-4,8-17		
Note: LEUKEMIA MONUC	TGLs = 4-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6-5,6-7		
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

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<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b> 870274
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-16,7-16		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 3-10		
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH	-
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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 5

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870275

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Epididymis		Dilatation	Moderate
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-15		
Note: ATROPHY	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Eosinophilic Focus	
		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Mild
Note: HEPATOCLR ADEN	TGLs = 3-4		
Mammary Gland		Hyperplasia	Cystic, Minimal
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Fibrosis	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Scheduled Sacrifice	<b>DAY ON TEST:</b> 460 <b>HISTO:</b> 870276
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

Eye	Retina	Atrophy	Moderate
	Lens	Cataract	Mild
Note: CATARACT	TGLs = 1-15		
Note: ATROPHY	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 729 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Pancreas
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
Bone	Thoracic, Vertebra	Fibrous Osteodystrophy	Minimal
* Epididymis		Dilatation	Moderate
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-15			
Note: CATARACT TGLs = 1-15			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 4-1			
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA TGLs = 2-16			
* Parathyroid Gland		Adenoma	
* Pituitary Gland	Pars Distalis	Hemorrhage	Moderate
	Pars Distalis	Hyperplasia	Moderate
Note: HEMORRHAGE TGLs = 5-7			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:17

**First Dose M/F:** NA / NA

**Lab:** BAT

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<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 729 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
* Preputial Gland		Adenoma Inflammation	Chronic Active, Mild
* Testes Note: ADENOMA      TGLs = 3-10	Bilateral, Interstit Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Mild
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b> 870278
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
Bone	Tibia	Fibrous Osteodystrophy	Minimal
	Cartilage, Humerus, Joint	Necrosis	Focal, Moderate
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-15		
Note: ATROPHY	TGLs = 1-15		
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
	[ Nephropathy TGLS = 4-1 ]		
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung	Alveolar Epith	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	
Note: ADENOMA	TGLs = 6-7		
* Preputial Gland		Inflammation	Chronic Active, Mild

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

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<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b> 870278
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Prostate		Inflammation	Chronic Active, Moderate
Skin		Keratoacanthoma	
Note: KERATOACANTHMA	TGLs = 5-16		
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-1 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 543 <b>HISTO:</b> 870279
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 1-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-7,3-2,6-6			
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 7-15			
* Nose		Leukemia Mononuclear	
* Pancreas	Acinus	Atrophy	Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-16			
Stomach	Forestomach	Acanthosis	Mild
	Forestomach	Inflammation	Chronic Active, Mild
Note: INFLAMMATION TGLs = 8-17			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:17  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 543 <b>HISTO:</b> 870279
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Interstit Cell Seminif Tub Interstit Cell	Adenoma Atrophy Hyperplasia	Mild Mild
Note: ATROPHY      TGLs = 4-10			
* Thymus		Leukemia Mononuclear	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH      -

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Animal Note: MORIBUND SAC. DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 59

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870280

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Epididymis  
Intestine Large - Colon  
\* Liver  
\* Pituitary Gland  
\* Testes

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
\* Lung  
\* Preputial Gland  
\* Thyroid Gland

Bone  
\* Heart  
Intestine Small - Duodenum  
\* Nose  
\* Salivary Glands  
Tooth

\* Brain  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Penis  
Skin

**MISSING**

Intestine Small - Ileum  
\* Prostate

Lymph Node - Mesenteric  
Seminal Vesicle

Mammary Gland

\* Parathyroid Gland

**AUTO PRECLUDES DIAG.**

\* Bone Marrow  
\* Pancreas  
\* Thymus

\* Islets, Pancreatic  
\* Spleen  
Trachea

\* Kidney  
Stomach - Forestomach  
\* Urinary Bladder

Lymph Node - Mandibular  
Stomach - Glandular

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, UNDETERMINED

Animal Note: TGL1-14, NO LESION SEEN ON PENIS AT MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 12

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870282

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex Medulla	Hyperplasia Pheochromocytoma Benign	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney	Cortex	Cyst Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 3-1			
* Liver	Hepatocyte Bile Duct	Degeneration Hyperplasia	Cystic, Mild Mild
Lymph Node	Mandibular Mesenteric	Leukemia Mononuclear Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis Pars Distalis	Cyst Hyperplasia	Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10,2-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 13

TRT#: 1

SEX: Male

DAY ON TEST: 184

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870283

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Pancreas  
\* Prostate  
\* Spleen  
\* Thymus  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Parathyroid Gland  
\* Salivary Glands  
Stomach - Forestomach  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
\* Nose  
\* Preputial Gland  
Skin  
\* Testes  
Trachea

**MISSING**

Mammary Gland

**OBSERVATIONS**

\* Heart

Degeneration

Chronic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 14

TRT#: 1

SEX: Male

DAY ON TEST: 712

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870284

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Parathyroid Gland
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Leukemia Mononuclear	
Bone	Intervertebr Disc, Thoracic, Vertebra	Degeneration	Moderate
	Periosteum, Thoracic, Vertebra	Hyperostosis	Moderate
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 7-1			
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 8-4,9-4,10-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 11-7,12-2			
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1-15,1-16			
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 14

TRT#: 1

SEX: Male

DAY ON TEST: 712

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870284

ORGAN AND ACCOUNTABLE SITE STATUS

\* Pituitary Gland

Pars Distalis

Leukemia Mononuclear

\* Preputial Gland

Leukemia Mononuclear

\* Prostate

Leukemia Mononuclear

Inflammation

Chronic Active, Mild

\* Spleen

Fibrosis

Moderate

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 4-1

Note: FIBROSIS TGLs = 5-1,6-1

\* Testes

Bilateral, Interstit Cell

Adenoma

Seminif Tub

Atrophy

Mild

Note: ATROPHY TGLs = 2-10

Note: ADENOMA TGLs = 3-10

\* Thyroid Gland

Follicular Cel

Carcinoma

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

Animal Note: TGL13-10, SEMINAL VESICLES WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 15

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870285

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Pancreas	* Parathyroid Gland	* Salivary Glands	Seminal Vesicle
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Moderate
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 3-7,5-7			
* Preputial Gland	Duct	Cyst	
Note: [ CYST ] TGLs = 6-10			
* Prostate		Dilatation	Marked
Skin		Keratoacanthoma	
	Subcut Tiss	Lipoma	
Note: LIPOMA TGLs = 1-15			
Note: KERATOACANTHMA TGLs = 2-16			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA TGLs = 4-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:17

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 15

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870285

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 16

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870286

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Mammary Gland	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Marked
* Liver		Clear Cell Focus	
	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hepatodiaphragmatic Nodule	
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: HDN	TGLs = 3-15		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Prostate		Dilatation	Moderate
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: [ ADENOMA ]	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:17

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 16

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870286

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: TGL1-10 PREPUTIAL GLAND WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 17

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870287

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Artery	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL4-15,NO LESION PRESENT ON SECTION, WNL

Animal Note: TGL3-4, FOCUS NOT PRESENT ON MICRO

Animal Note: TGL2-10, SEMINAL VESICLES WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 18

TRT#: 1

SEX: Male

DAY ON TEST: 460

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870288

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Blood	Bone
* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thymus	* Thyroid Gland	Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Inflammation	Chronic Active, Mild
		Metaplasia	Squamous, Mild
* Testes	Interstitial Cell	Hyperplasia	Mild
Tooth	Molar, Peridont Tiss	Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 19

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870289

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex Medulla	Hyperplasia Pheochromocytoma Benign	Moderate
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Clear Cell Focus Hepatodiaphragmatic Nodule	
Note: CLEAR CL FOCUS TGLs = 4-17 Note: HDN TGLs = 3-16	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Parathyroid Gland		Adenoma	
* Pituitary Gland	Pars Distalis Pars Distalis	Hemorrhage Hyperplasia	Moderate Moderate
Note: HEMORRHAGE TGLs = 2-7			
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-15			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Mild Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 20

TRT#: 1

SEX: Male

DAY ON TEST: 184

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870290

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Liver	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Testes	* Thymus	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 459

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870291

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Prostate  
Stomach - Forestomach  
Trachea

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Parathyroid Gland  
Seminal Vesicle  
\* Thymus

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pituitary Gland  
Skin  
\* Thyroid Gland

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver

Degeneration  
Nephropathy  
Basophilic Focus  
Clear Cell Focus  
Hyperplasia  
Leukemia Mononuclear  
Vacuolization Cytoplasmic  
Hyperplasia  
Atrophy  
Inflammation  
Leukemia Mononuclear  
Adenoma  
Hyperplasia  
Inflammation

Chronic, Mild  
Chronic, Moderate  
  
Mild  
Mild  
Cystic, Mild  
Mild  
Chronic Active, Mild  
  
Mild  
Suppurative, Marked

Bile Duct

Acinus

Bilateral, Interstit Cell

Interstit Cell

Molar, Peridont Tiss

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 22

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 0 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870292

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
\* Salivary Glands  
Stomach - Forestomach  
\* Thyroid Gland

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Liver  
\* Nose  
\* Preputial Gland  
Skin  
\* Testes  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Pancreas  
\* Prostate  
\* Spleen  
\* Thymus  
\* Urinary Bladder

**OBSERVATIONS**

\* Heart  
\* Kidney  
Mammary Gland

Degeneration  
Nephropathy  
Hyperplasia

Chronic, Minimal  
Chronic, Minimal  
Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 656

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870293

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Moderate
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 5-1 ]			
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4-4			
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 3-15			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Stomach	Glandular	Ulcer	Mild
Note: ULCER TGLs = 6-6			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:17  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 23

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 656

**DOSE:** 0 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870293

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

Animal Note: TGL1-10, TESTIS SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 24

TRT#: 1

SEX: Male

DAY ON TEST: 669

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870294

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
Bone	Humerus	Fibrous Osteodystrophy	Minimal
	Maxilla	Fibrous Osteodystrophy	Moderate
	Tibia	Fibrous Osteodystrophy	Moderate
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 9-1 ]			
* Liver	Bile Duct	Hepatodiaphragmatic Nodule	
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7-4			
Note: HDN TGLs = 8-4			
* Lung	Mandibular	Leukemia Mononuclear	
Lymph Node	Mesenteric	Leukemia Mononuclear	
		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
	Mucosa	Ulcer	Mild
* Preputial Gland		Adenoma	
Note: ADENOMA TGLs = 2-17			
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Fibrosis	Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 24

TRT#: 1

SEX: Male

DAY ON TEST: 669

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870294

ORGAN AND ACCOUNTABLE SITE STATUS

Leukemia Mononuclear

[ Fibrosis TGLS = 6-1 ]

[ Leukemia Mononuclear TGLS = 5-1 ]

Stomach	Forestomach	Ulcer	Moderate
Note: ULCER	TGLs = 11-18,12-18		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 4-10		
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
	Gingiva, Lower, Molar	Squamous Cell Carcinoma	Metastatic (Uncertain Primary Site)
Zymbal's Gland		Carcinoma	
Note: CARCINOMA	TGLs = 1-16		

PRIMARY CAUSE OF DEATH

-

Animal Note: COD LEUKEMIA AND ZYMBALS GLAND TUMOR

Animal Note: TGL10-15, NCL, NOT PRESENT IN SECTION

Animal Note: TGL2-17, IS PREPUTIAL GLAND TUMOR, NOT SKIN

Animal Note: TGL3-10, TESTIS WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 25

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870295

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Liver	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Testes	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

**OBSERVATIONS**

* Heart	Degeneration	Chronic, Minimal
* Kidney	Nephropathy	Chronic, Minimal
Mammary Gland	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 26

TRT#: 1

SEX: Male

DAY ON TEST: 718

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870296

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
Bone	Humerus	Fibrous Osteodystrophy	Mild
	Tibia	Fibrous Osteodystrophy	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
Note: [ NEPHROPATHY ] TGLs = 3-1			
* Liver	Bile Duct	Hyperplasia	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Chronic Active, Mild
Stomach	Forestomach	Inflammation	Chronic Active, Marked
	Glandular	Necrosis	Moderate
	Forestomach	Ulcer	Moderate
Note: ULCER TGLs = 5-6			
* Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
Note: ATROPHY TGLs = 2-10			
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:17  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 26	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 718 <b>HISTO:</b> 870296
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Zymbal's Gland		Carcinoma	
Note: CARCINOMA	TGLs = 4-15,4-16		

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PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO NEPHROPATHY AND ZYMBALS TUMOR

Animal Note: UNDECALCIFIED LOWER INCISORS BROKEN

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 27

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870297

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
Ear	Pinna	Neurofibrosarcoma	
Note: NEUROFIBROSARC TGLs = 1-15			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 4-1			
* Liver		Clear Cell Focus	
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA TGLs = 2-16		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 3-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 28

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870298

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Minimal
Intestine Large	Colon	Adenocarcinoma	
Note: ADENOCARC TGLs = 2-15			
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 29

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870299

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-4			
Note: HDN TGLs = 7-17,8-18			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Fibrosarcoma	
		Fibrosis	Moderate
		Leukemia Mononuclear	
Note: FIBROSIS TGLs = 1-16			
[ Fibrosis TGLS = 2-16 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Mild
Note: ATROPHY TGLs = 4-10			
Note: ADENOMA TGLs = 3-10			
* Thymus		Depletion Lymphoid	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:17  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 29	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 731 <b>HISTO:</b> 870299
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
* Thyroid Gland Note: ADENOMA      TGLs = 6-15	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Minimal
<b>PRIMARY CAUSE OF DEATH</b>	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 30

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870300

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Pancreas  
\* Salivary Glands  
Stomach - Glandular

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Seminal Vesicle  
\* Thyroid Gland

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Skin  
Trachea

\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Prostate  
\* Spleen  
\* Urinary Bladder

OBSERVATIONS

\* Adrenal Gland  
Bone  
Eye  
  
Note: CATARACT TGLs = 1-16  
Note: ATROPHY TGLs = 1-16  
  
\* Heart  
\* Kidney  
[ Nephropathy TGLS = 3-1 ]  
  
\* Liver  
  
Note: EOSIN FOCUS TGLs = 5-17,6-17  
Mammary Gland  
\* Preputial Gland  
Stomach  
Note: BASAL CEL ADEN TGLs = 4-15  
\* Testes  
Note: ADENOMA TGLs = 2-10  
\* Thymus  
Tooth

Medulla  
Cartilage, Humerus, Joint  
Retina  
Lens  
  
  
  
  
Bile Duct  
  
  
  
Forestomach  
  
Bilateral, Interstit Cell  
  
  
Dentine, Incisor

Hyperplasia  
Degeneration  
Atrophy  
Cataract  
  
Degeneration  
Nephropathy  
  
Eosinophilic Focus  
Hyperplasia  
  
Hyperplasia  
Inflammation  
Basal Cell Adenoma  
  
Adenoma  
  
Depletion Lymphoid  
Necrosis

Mild  
Moderate  
Marked  
Moderate  
  
Chronic, Moderate  
Chronic, Marked  
  
Mild  
  
Cystic, Mild  
Chronic Active, Mild  
  
  
  
Mild  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 31

TRT#: 1

SEX: Male

DAY ON TEST: 459

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870301

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Spleen		Leukemia Mononuclear	
* Testes	Interstit Cell	Hyperplasia	Mild
Tooth	Molar, Peridont Tiss	Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 686

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870302

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla Cortex	Pheochromocytoma Benign Vacuolization Cytoplasmic	Focal, Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
Eye	Retina Lens	Atrophy Cataract	Marked Moderate
Note: ATROPHY	TGLs = 1-23		
Note: CATARACT	TGLs = 1-23		
* Heart		Degeneration	Chronic, Moderate
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Leukemia Mononuclear Nephropathy	Chronic, Moderate
[ Leukemia Mononuclear TGLS = 8-1 ]			
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Moderate
Note: LEUKEMIA MONUC	TGLs = 7-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular Mediastinal Mesenteric Pancreatic	Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-7,4-15,11-6,12-18		
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 686

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870302

ORGAN AND ACCOUNTABLE SITE STATUS

Note: INFLAMMATION * Preputial Gland	TGLs = 9-21,9-22 Duct	Cyst Inflammation	Chronic Active, Moderate
Note: CYST * Spleen	TGLs = 2-10	Leukemia Mononuclear	
Note: LEUKEMIA MONUC Stomach	TGLs = 5-16,6-17 Forestomach Glandular	Acanthosis Necrosis	Mild Mild
Note: ACANTHOSIS Note: NECROSIS	TGLs = 14-19 TGLs = 15-20		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA * Thymus	TGLs = 10-10	Leukemia Mononuclear	
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Marked Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

Animal Note: TGL13-10, SEMINAL VESICLES WITHIN NORMAL LIMITS FOR AGE

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 33

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870303

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Salivary Glands  
Stomach - Glandular

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Parathyroid Gland  
Seminal Vesicle  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Pituitary Gland  
Skin  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Prostate  
Stomach - Forestomach  
\* Urinary Bladder

OBSERVATIONS

Eye  
Note: ATROPHY TGLs = 1-16  
Note: CATARACT TGLs = 1-16

Retina Atrophy  
Lens Cataract

Marked  
Moderate

\* Heart  
\* Islets, Pancreatic  
\* Kidney  
\* Liver  
Note: LEUKEMIA MONUC TGLs = 5-4

Degeneration  
Adenoma  
Nephropathy  
Hyperplasia  
Leukemia Mononuclear

Chronic, Mild  
Chronic, Marked  
Moderate

\* Lung  
Lymph Node  
Mammary Gland  
\* Nose  
\* Pancreas  
\* Preputial Gland  
\* Spleen  
Note: LEUKEMIA MONUC TGLs = 2-1  
[ Leukemia Mononuclear TGLS = 3-15 ]

Bile Duct  
Mandibular  
Mediastinal  
Mesenteric  
Sinus  
Mucosa  
Acinus  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Hyperplasia  
Foreign Body  
Inflammation  
Atrophy  
Inflammation  
Fibrosis  
Leukemia Mononuclear

Cystic, Mild  
Mild  
Chronic Active, Minimal  
Mild  
Chronic Active, Mild  
Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:17

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 33

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870303

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes Note: ADENOMA      TGLs = 4-10	Bilateral, Interstit Cell	Adenoma	
* Thymus Tooth	Dentine, Incisor	Leukemia Mononuclear Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL6-17, FOCUS NOT APPARENT ON MICRO

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 34

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870304

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Pituitary Gland	* Salivary Glands
Seminal Vesicle	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla Cortex	Pheochromocytoma Benign Vacuolization Cytoplasmic	Focal, Moderate
Eye	Retina Lens	Atrophy Cataract	Marked Moderate
Note: CATARACT TGLs = 1-16			
Note: ATROPHY TGLs = 1-16			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 7-1 ]			
* Liver		Hyperplasia Leukemia Mononuclear Vacuolization Cytoplasmic	Moderate Moderate
Note: HYPERPLASIA TGLs = 14-19			
Note: LEUKEMIA MONUC TGLs = 8-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular Mediastinal Mesenteric Renal	Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-5,5-7,9-2,10-6,10-15,11-17			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Parathyroid Gland		Adenoma	
* Preputial Gland		Adenoma	
Note: ADENOMA TGLs = 3-10			

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 34

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 731

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870304

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Prostate		Inflammation	Chronic Active, Mild
Skin		Keratoacanthoma	
Note: KERATOACANTHOMA	TGLs = 2-18		
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-1 ]			
Stomach	Glandular	Mineralization	Moderate
	Forestomach	Ulcer	Mild
	Glandular	Ulcer	Moderate
Note: ULCER	TGLs = 12-6,13-6		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 4-10		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 35

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870305

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Pancreas  
\* Prostate  
\* Spleen  
\* Thymus  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
\* Salivary Glands  
Stomach - Forestomach  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
\* Nose  
\* Preputial Gland  
Skin  
\* Testes  
Trachea

**OBSERVATIONS**

\* Kidney  
Mammary Gland

Nephropathy  
Hyperplasia

Chronic, Minimal  
Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 36

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870306

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-1 ]			
* Liver	Bile Duct	Hepatodiaphragmatic Nodule	
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
[ Hepatodiaphragmatic Nodule TGLS = 1-15 ]			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Minimal
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870307

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Nose  
Seminal Vesicle  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Parathyroid Gland  
Stomach - Forestomach

Bone  
Esophagus  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
\* Pituitary Gland  
Stomach - Glandular

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
\* Salivary Glands  
Trachea

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver

Degeneration  
Nephropathy  
Clear Cell Focus

Chronic, Mild  
Chronic, Marked

Bile Duct

Hyperplasia  
Leukemia Mononuclear

Moderate

Note: LEUKEMIA MONUC TGLs = 6-4

\* Lung  
Mammary Gland  
\* Pancreas  
\* Preputial Gland  
\* Prostate  
Skin

Leukemia Mononuclear  
Hyperplasia  
Atrophy  
Inflammation  
Inflammation  
Keratoacanthoma

Cystic, Mild  
Moderate  
Chronic Active, Mild  
Chronic Active, Minimal  
Multiple

Acinus

Note: KERATOACANTHMA TGLs = 1-17,2-16

\* Spleen

Fibrosis  
Leukemia Mononuclear

Mild

Note: FIBROSIS TGLs = 5-15  
[ Fibrosis TGLS = 4-15 ]

\* Testes

Bilateral, Interstit Cell

Adenoma

Note: ADENOMA TGLs = 3-10

\* Thymus  
\* Thyroid Gland  
Tooth

C Cell  
Lower, Molar, Peridont Tiss

Depletion Lymphoid  
Adenoma  
Inflammation

Mild  
Suppurative, Chronic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:17  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 37

**TRT#:** 1  
**DOSE:** 0 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 731  
**HISTO:** 870307

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Dentine, Incisor

Necrosis

Multifocal, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 38

TRT#: 1

SEX: Male

DAY ON TEST: 184

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870308

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Liver	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Testes	* Thymus	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
Mammary Gland		Hyperplasia	Cystic, Minimal
* Pancreas	Acinus	Atrophy	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 39

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870309

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Bone	Humerus	Osteosclerosis	Moderate
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-1 ]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
Note: CLEAR CL FOCUS TGLs = 3-15			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Pancreas	Artery	Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Dilatation	Moderate
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:17  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 39

**TRT#:** 1  
**DOSE:** 0 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 731  
**HISTO:** 870309

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 40

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870310

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Liver	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Testes	* Thymus	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder		

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
Mammary Gland		Hyperplasia	Cystic, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 41

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870311

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Lymph Node	Mandibular	Angiectasis	Moderate
Note: ANGIECTASIS TGLs = 2-7			
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Minimal
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1-15			
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-16			
* Testes	Bilateral, Interstit Cell	Adenoma	
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 42

TRT#: 1

SEX: Male

DAY ON TEST: 460

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870312

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Gland - Cortex
- \* Epididymis
- Intestine Large - Rectum
- \* Islets, Pancreatic
- \* Parathyroid Gland
- Skin
- \* Thymus
- \* Urinary Bladder

- \* Adrenal Gland - Medulla
- Esophagus
- Intestine Small - Duodenum
- Lymph Node - Mandibular
- \* Prostate
- \* Spleen
- \* Thyroid Gland

- \* Bone Marrow
- Intestine Large - Cecum
- Intestine Small - Ileum
- Lymph Node - Mesenteric
- \* Salivary Glands
- Stomach - Forestomach
- Tooth

- \* Brain
- Intestine Large - Colon
- Intestine Small - Jejunum
- \* Pancreas
- Seminal Vesicle
- Stomach - Glandular
- Trachea

OBSERVATIONS

Bone	Humerus, Ligament	Metaplasia	Cartilagenous, Focal, Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Mild
* Lung	Alveolar Epith	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose		Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

Note: ADENOMA TGLs = 1-10

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870313

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	* Thyroid Gland	Trachea	* Urinary Bladder

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Moderate
	Medulla	Pheochromocytoma Benign	
Blood Vessel	Aorta	Mineralization	Moderate
Note: MINERALIZATION TGLs = 5-15			
Bone	Humerus	Fibrous Osteodystrophy	Moderate
	Maxilla	Fibrous Osteodystrophy	Moderate
	Thoracic, Vertebra	Fibrous Osteodystrophy	Mild
	Tibia	Fibrous Osteodystrophy	Moderate
* Bone Marrow	Femoral	Myelofibrosis	Moderate
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-16			
Note: ATROPHY TGLs = 1-16			
* Heart		Degeneration	Chronic, Moderate
		Mineralization	Moderate
* Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Marked
[ Cyst TGLS = 4-1 ]			
[ Nephropathy TGLS = 3-1 ]			
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870313

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Lung		Mineralization	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Artery	Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
Stomach	Forestomach	Mineralization	Marked
	Glandular	Mineralization	Moderate
Note: MINERALIZATION	TGLs = 7-6		
Note: MINERALIZATION	TGLs = 6-6		
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 2-10		
Note: ATROPHY	TGLs = 2-10		
Tooth	Dentine, Incisor	Dysplasia	Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO NEPHROPATHY

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 44

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870314

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Harderian Gland	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Moderate
		Thrombosis	
* Islets, Pancreatic		Carcinoma	
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-1 ]			
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Moderate
* Preputial Gland		Adenoma	
		Inflammation	Chronic Active, Mild
Note: ADENOMA	TGLs = 1-15		
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thyroid Gland	C Cell	Adenoma	
Note: ADENOMA	TGLs = 4-7		
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:17

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 44

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870314

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 45

TRT#: 1

SEX: Male

DAY ON TEST: 184

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870315

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Testes
* Thymus	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder			

**MISSING**

Lymph Node - Mesenteric

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 46

TRT#: 1

SEX: Male

DAY ON TEST: 676

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870316

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mesenteric	* Nose
* Pancreas	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Heart		Degeneration Thrombosis	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver	Hepatocyte	Degeneration	Cystic, Moderate
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Spleen	Red Pulp	Atrophy	Moderate
* Testes	Interstitial Cell	Adenoma	
	Interstitial Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 1-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, HEART THROMBUS AND LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:17

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 46

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 676

**DOSE:** 0 PPM

**DISP:** Natural Death

**HISTO:** 870316

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: TGL2-15, SPLEEN WITHIN NORMAL SIZE LIMITS

Animal Note: TGL3-10, SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 47

TRT#: 1

SEX: Male

DAY ON TEST: 571

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870317

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Epididymis	Esophagus
Eye	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Degeneration	Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
* Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC TGLs = 4-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-17,5-16,6-19,7-20,8-15			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-18			
Stomach	Forestomach	Acanthosis	Moderate
Note: ACANTHOSIS TGLs = 10-6			
* Testes	Seminif Tub	Atrophy	Marked
* Thymus		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:17  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 47	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 571 <b>HISTO:</b> 870317
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thyroid Gland Note: ADENOMA      TGLs = 9-7	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Mild Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

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Animal Note: TGL1-21, BOTH EYES APPEAR NORMAL ON MICRO  
Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 48

TRT#: 1

SEX: Male

DAY ON TEST: 692

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870318

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	* Thyroid Gland
Trachea			

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Brain		Hydrocephalus	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 1-17,2-16			
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Inflammation	Chronic Active, Marked
Note: INFLAMMATION TGLs = 3-15			
* Prostate		Inflammation	Chronic Active, Mild
Stomach	Glandular	Ulcer	Moderate
Note: ULCER TGLs = 5-6			
* Testes	Interstit Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
* Urinary Bladder		Calculus Micro Observation Only	
Note: CALCUS MIC OBS TGLs = 4-6			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:17

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 48

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 692

**DOSE:** 0 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870318

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: TGL1-17,2-16, THORACIC MASSES ARE MAMMARY HYPERPLASIA

Animal Note: MORIBUND SAC. DUE TO PITUITARY ABCESS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 49

TRT#: 1

SEX: Male

DAY ON TEST: 718

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870319

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Esophagus	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	Seminal Vesicle	Skin
* Thyroid Gland	Trachea	* Urinary Bladder	

MISSING

Lacrimal Gland

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
	Medulla	Leukemia Mononuclear	
Bone	Cartilage, Joint, Tibia	Necrosis	Focal, Marked
	Humerus	Osteosclerosis	Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
		Necrosis	Subacute, Mild
Note: LEUKEMIA MONUC	TGLs = 9-17		
* Epididymis		Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
Note: LEUKEMIA MONUC	TGLs = 3-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 1-7,2-2,7-15		
Mammary Gland		Fibroadenoma	

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 49

TRT#: 1

SEX: Male

DAY ON TEST: 718

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870319

ORGAN AND ACCOUNTABLE SITE STATUS

Note: FIBROADENOMA TGLs = 8-19		Hyperplasia	Cystic, Moderate
Mesentery		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Leukemia Mononuclear	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6-16			
Stomach	Forestomach	Leukemia Mononuclear	
	Glandular	Leukemia Mononuclear	
	Forestomach	Ulcer	Moderate
Note: ULCER TGLs = 10-18			
* Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
		Leukemia Monocytic	
Note: ADENOMA TGLs = 5-10			
Note: LEUKEMIA MONO TGLs = 5-10			
Note: ATROPHY TGLs = 4-10			
* Thymus		Leukemia Mononuclear	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

Animal Note: TGL8-19, IS MAMMARY GLAND TUMOR, NOT MUSCLE

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 50

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870320

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex Medulla	Hyperplasia Hyperplasia	Mild Minimal
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-1 ]			
* Liver	Hepatocyte	Degeneration	Cystic, Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular Mesenteric	Leukemia Mononuclear Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 4-7			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-1 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 51

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870321

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Parathyroid Gland
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
Bone	Tibia	Fibrous Osteodystrophy	Minimal
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-15		
Note: ATROPHY	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
Note: HDN	TGLs = 3-16		
Note: CLEAR CL FOCUS	TGLs = 6-18		
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Dilatation	Moderate
Stomach	Forestomach	Acanthosis	Moderate
Note: ACANTHOSIS	TGLs = 4-17		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:17  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 51	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 729 <b>HISTO:</b> 870321
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes Note: ADENOMA      TGLs = 2-10	Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
* Thymus Tooth	Dentine, Incisor	Depletion Lymphoid Necrosis	Mild Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: TGL5-19, FOCUS NOT APPARENT ON MICRO

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 52

TRT#: 1

SEX: Male

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870322

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Seminal Vesicle	* Spleen	Stomach - Forestomach	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Accessory Adrenal Cortical Nodule	
	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
Note: 1991 CONVERSION DISCREPANCY. ORIGINAL DIAGNOSIS SITE NOT SPECIFIED.			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION	TGLs = 3-15		
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Minimal
Skin		Acanthosis	Moderate
Note: ACANTHOSIS	TGLs = 1-16		
Stomach	Glandular	Hyperplasia	Mild
Note: HYPERPLASIA	TGLs = 4-17		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:17

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 52

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 731

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870322

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 53

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870323

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
	Medulla	Pheochromocytoma Malignant	
Note: PHEOCHROM BGN TGLs = 5-7			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-1 ]			
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-4			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 54

TRT#: 1

SEX: Male

DAY ON TEST: 325

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
Peripheral Nerve	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skeletal Muscle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	

**MISSING**

Mammary Gland

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
Spinal Cord		Astrocytoma Malignant	
* Spleen		Leukemia Mononuclear	
* Testes	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SACRIFICE DUE TO SPINAL CORD TUMOR

Animal Note: TGL1-14, BLADDER WITHIN NORMAL LIMITS.

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 55

TRT#: 1

SEX: Male

DAY ON TEST: 644

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870325

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Heart		Degeneration Thrombosis	Chronic, Moderate
Note: THROMBUS	TGLs = 8-4		
* Kidney		Leukemia Mononuclear Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear Vacuolization Cytoplasmic	Mild Marked
Note: LEUKEMIA MONUC	TGLs = 5-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular Mediastinal Mesenteric	Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6-15		
Mammary Gland		Hyperplasia	Cystic, Moderate
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-1		
Stomach	Forestomach Glandular	Ulcer Ulcer	Moderate Moderate
Note: ULCER	TGLs = 7-6		
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:17  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 55	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 644 <b>HISTO:</b> 870325
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA Note: ATROPHY * Thymus Tooth  Zymbal's Gland Note: CARCINOMA	TGLs = 3-10 TGLs = 2-10    TGLs = 1-16	Seminif Tub  Lower, Molar, Peridont Tiss Dentine, Incisor	Atrophy  Depletion Lymphoid Inflammation Necrosis Carcinoma	Moderate  Moderate Suppurative, Chronic, Mild Multifocal, Minimal
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PRIMARY CAUSE OF DEATH

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Animal Note: COD LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 56

TRT#: 1

SEX: Male

DAY ON TEST: 697

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870326

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Complex	
Note: PHEOCHROM CPLX TGLs = 4-16,5-16			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
Note: LEUKEMIA MONUC TGLs = 6-4		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Mild
Note: ADENOMA TGLs = 3-10,2-10			
Note: ATROPHY TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:17

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 56

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 697

**DOSE:** 0 PPM

**DISP:** Natural Death

**HISTO:** 870326

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: COD, LEUKEMIA MONONUCLEAR AND ADRENAL TUMOR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 57

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870327

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Forestomach  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
Seminal Vesicle  
Stomach - Glandular

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Parathyroid Gland  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Preputial Gland  
\* Spleen  
Trachea

OBSERVATIONS

Eye  
Note: CATARACT TGLs = 1-15  
Note: ATROPHY TGLs = 1-15  
\* Heart  
\* Kidney  
\* Liver  
Mammary Gland  
\* Pancreas  
\* Pituitary Gland  
Note: ADENOMA TGLs = 3-7  
\* Prostate  
\* Testes  
Note: ADENOMA TGLs = 2-10  
\* Thymus  
Tooth

Retina  
Lens  
Hepatocyte  
Bile Duct  
Artery  
Pars Distalis  
Pars Distalis  
Bilateral, Interstit Cell  
Dentine, Incisor

Atrophy  
Cataract  
Degeneration  
Nephropathy  
Clear Cell Focus  
Degeneration  
Eosinophilic Focus  
Hyperplasia  
Vacuolization Cytoplasmic  
Hyperplasia  
Inflammation  
Adenoma  
Congestion  
Inflammation  
Adenoma  
Depletion Lymphoid  
Necrosis

Marked  
Moderate  
Chronic, Mild  
Chronic, Moderate  
Cystic, Mild  
Mild  
Mild  
Cystic, Moderate  
Chronic Active, Mild  
Moderate  
Chronic Active, Mild  
Moderate  
Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:17  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 57

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 732

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870327

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 58

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870328

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
Bone	Tibia	Osteosclerosis	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-15			
Note: ATROPHY TGLs = 1-15			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Mild
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-4			
Note: HYPERPLASIA TGLs = 6-17			
* Lung		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Moderate
Skin		Basal Cell Adenoma	
Note: BASAL CEL ADEN TGLs = 2-16			
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-1 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:17  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 58	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 732 <b>HISTO:</b> 870328
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
Note: ADENOMA      TGLs = 3-10			
* Thymus		Depletion Lymphoid	Marked
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Mild Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:17

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 59

TRT#: 1

SEX: Male

DAY ON TEST: 613

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870329

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Nose	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Cortex	Hemorrhage	Moderate
	Medulla	Leukemia Mononuclear	
Bone	Humerus	Osteosclerosis	Minimal
	Tibia	Osteosclerosis	Minimal
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 4-15			
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-1,3-1			
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 59	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 613 <b>HISTO:</b> 870329
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Note: ADENOMA Tooth	TGLs = 1-10 Dentine, Incisor	Hyperplasia Necrosis	Mild Multifocal, Minimal
<b>PRIMARY CAUSE OF DEATH</b>		-	
Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR			

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 60

TRT#: 1

SEX: Male

DAY ON TEST: 645

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870330

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Nose
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Stomach - Forestomach	Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 8-5			
* Heart		Degeneration	Chronic, Moderate
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC TGLs = 4-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-6			
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Intermed	Cyst	
	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1-15			
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 60

TRT#: 1

SEX: Male

DAY ON TEST: 645

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870330

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: LEUKEMIA MONUC	TGLs = 2-16			
Stomach		Glandular	Necrosis	Mild
Note: NECROSIS	TGLs = 6-6			
* Testes		Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
Note: ADENOMA	TGLs = 3-10			
* Thymus			Depletion Lymphoid	Moderate
* Thyroid Gland		C Cell	Adenoma	
Tooth		Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL7-6, FOCI NOT APPARENT ON MICRO

Animal Note: MORIBUND SAC DUE TO LEUKEMIA AND SKIN MASS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 61

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870331

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mesenteric	* Pancreas
* Parathyroid Gland	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-2			
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-15			
* Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Mild
	Interstit Cell	Hyperplasia	Mild
Note: HYPERPLASIA TGLs = 1-10			
Note: ATROPHY TGLs = 2-10			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 61

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 732

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870331

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA      TGLs = 1-10

\* Thymus

Depletion Lymphoid

Mild

Tooth

Dentine, Incisor

Necrosis

Multifocal, Mild

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**PRIMARY CAUSE OF DEATH**

-

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Animal Note: TGL4-6, PANCREAS SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 62

TRT#: 1

SEX: Male

DAY ON TEST: 599

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870332

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Pituitary Gland  
Seminal Vesicle  
\* Thyroid Gland

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Preputial Gland  
Skin  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Nose  
\* Prostate  
Stomach - Forestomach  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Parathyroid Gland  
\* Salivary Glands  
Stomach - Glandular

OBSERVATIONS

\* Heart  
\* Kidney

Degeneration  
Leukemia Mononuclear  
Nephropathy  
Hyperplasia  
Leukemia Mononuclear

Chronic, Moderate  
  
Chronic, Moderate  
Moderate

\* Liver

Bile Duct

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 4-4,5-4

\* Lung

Lymph Node

Mandibular  
Mediastinal  
Mesenteric

Hyperplasia  
Leukemia Mononuclear  
Leukemia Mononuclear

Cystic, Moderate

Note: LEUKEMIA MONUC TGLs = 6-15

Mammary Gland

\* Pancreas

\* Spleen

Note: LEUKEMIA MONUC TGLs = 2-16,3-16

\* Testes

Bilateral, Interstit Cell  
Interstit Cell

Adenoma  
Hyperplasia

Mild

Note: ADENOMA TGLs = 1-10

\* Thymus

Tooth

Lower, Molar, Peridont Tiss  
Dentine, Incisor

Depletion Lymphoid  
Inflammation  
Necrosis

Mild  
Suppurative, Chronic, Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 62

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 599

**DOSE:** 0 PPM

**DISP:** Natural Death

**HISTO:** 870332

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: COD, LEUKEMIA MOMONUCLEAR

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 63

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870333

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Moderate
Bone	Humerus	Fibrous Osteodystrophy	Minimal
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: HYPERPLASIA TGLs = 5-16,6-17			
Note: LEUKEMIA MONUC TGLs = 4-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-15 ]			
* Testes	Interstitial Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
Note: ATROPHY TGLs = 2-10			
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 63

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 732

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870333

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Dentine, Incisor

Necrosis

Multifocal, Mild

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 64

TRT#: 1

SEX: Male

DAY ON TEST: 719

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870334

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 7-4			
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1-5,1-7,6-17,8-6,8-16,9-2,10-18			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Leukemia Mononuclear	
* Preputial Gland		Adenoma	
Note: ADENOMA TGLs = 2-10			
* Prostate		Leukemia Mononuclear	
Skin	Subcut Tiss	Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 5-15			
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 64

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 719

**DOSE:** 0 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870334

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: 3-10, TESTIS SIZE WITHIN NORMAL LIMITS

Note: ADENOMA TGLs = 4-10

\* Thymus

Leukemia Mononuclear

\* Thyroid Gland

Leukemia Mononuclear

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 65

TRT#: 1

SEX: Male

DAY ON TEST: 184

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870335

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
\* Islets, Pancreatic  
\* Nose  
\* Preputial Gland  
Skin  
\* Testes  
Trachea

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Small - Duodenum  
\* Lung  
\* Pancreas  
\* Prostate  
\* Spleen  
\* Thymus  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
\* Salivary Glands  
Stomach - Forestomach  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

OBSERVATIONS

\* Heart  
Intestine Large  
\* Kidney  
\* Liver  
  
Mammary Gland

Rectum  
  
  
Centrilobular

Degeneration  
Parasite Metazoan  
Nephropathy  
Inflammation  
Vacuolization Cytoplasmic  
Hyperplasia

Chronic, Mild  
  
Chronic, Minimal  
Chronic Active, Mild  
Mild  
Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 66

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870336

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	* Nose	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
	Medulla	Pheochromocytoma Malignant	
Note: PHEOCHROM BGN TGLs = 3-15			
Bone	Maxilla	Fibrous Osteodystrophy	Minimal
	Thoracic, Vertebra	Fibrous Osteodystrophy	Minimal
	Tibia	Fibrous Osteodystrophy	Minimal
Ear	Pinna	Squamous Cell Carcinoma	
Note: SQUAM CEL CARC TGLs = 1-17			
* Heart	Endocardium, Ventricl Lft	Schwannoma Benign	
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-1,4-18 ]			
* Liver	Bile Duct	Basophilic Focus	
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Parathyroid Gland		Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 5-7			
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Prostate		Inflammation	Chronic Active, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 66	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 732 <b>HISTO:</b> 870336
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Spleen		Leukemia Mononuclear	
Stomach	Glandular	Mineralization	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Mild
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 2-16		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 67

TRT#: 1

SEX: Male

DAY ON TEST: 543

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870337

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Epididymis	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Kidney		Nephropathy	Chronic, Mild
* Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]		Vacuolization Cytoplasmic	Mild
Lymph Node	Mandibular	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-7 ]	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Prostate		Inflammation	Chronic Active, Minimal
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-15			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

Animal Note: TGL1-10, TESTIS SIZE WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 68

TRT#: 1

SEX: Male

DAY ON TEST: 719

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870338

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Skin  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Nose  
Stomach - Forestomach

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Prostate  
Stomach - Glandular

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Seminal Vesicle  
Trachea

MISSING

Mammary Gland

OBSERVATIONS

\* Adrenal Gland  
\* Heart  
\* Kidney  
[ Nephropathy TGLS = 5-1 ]  
\* Liver  
\* Lung  
Lymph Node  
Note: LEUKEMIA MONUC TGLs = 9-18,4-2  
\* Pancreas  
Note: LEUKEMIA MONUC TGLs = 10-16  
\* Parathyroid Gland  
\* Pituitary Gland  
\* Preputial Gland  
Note: CYST TGLs = 6-10  
\* Salivary Glands

Medulla  
Medulla  
Bile Duct  
Inguinal  
Mandibular  
Mediastinal  
Mesenteric  
Pars Distalis  
Duct

Hyperplasia  
Pheochromocytoma Benign  
Degeneration  
Nephropathy  
Hyperplasia  
Leukemia Mononuclear  
Carcinoma  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Adenoma  
Hyperplasia  
Cyst  
Inflammation  
Leukemia Mononuclear

Mild  
Chronic, Moderate  
Chronic, Marked  
Mild  
Metastatic (Thyroid Gland)  
Mild  
Chronic Active, Mild

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 68

TRT#: 1

SEX: Male

DAY ON TEST: 719

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870338

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: LEUKEMIA MONUC	TGLs = 1-17		
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-15,11-15		
* Testes		Bilateral, Interstit Cell	
Note: ADENOMA	TGLs = 8-10		
* Thymus		Adenoma	
* Thyroid Gland		Depletion Lymphoid	Moderate
Note: CARCINOMA	TGLs = 12-7		
Tooth		C Cell	
		Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-4, HEART SIZE WITHIN NORMAL LIMITS

Animal Note: TGL7-10,NO MASS PRESENT IN SECOND PREPUTIAL GLAND

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 69

TRT#: 1

SEX: Male

DAY ON TEST: 690

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870339

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Leukemia Mononuclear	Chronic, Mild
* Heart		Degeneration	
		Leukemia Mononuclear Thrombosis	
Note: THROMBUS TGLs = 4-4			
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-4		Vacuolization Cytoplasmic	Mild
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-16			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1-15			
Stomach	Forestomach	Ulcer	Mild
	Glandular	Ulcer	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

**ANIMAL ID:** 69

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 690

**DOSE:** 0 PPM

**DISP:** Natural Death

**HISTO:** 870339

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ULCER	TGLs = 7-18	Glandular	Ulcer	Mild
Note: ULCER	TGLs = 6-17			
* Testes		Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
Note: ADENOMA	TGLs = 2-10			
* Thymus			Depletion Lymphoid	Moderate
Tooth		Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

Animal Note: TGL8-10, SEMINAL VESICLES WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 70

TRT#: 1

SEX: Male

DAY ON TEST: 441

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870340

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Liver	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder		

**OBSERVATIONS**

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Mucosa	Inflammation	Chronic Active, Marked
		Metaplasia	Squamous, Mild
* Pancreas	Acinus	Atrophy	Moderate
* Spleen		Depletion Lymphoid	Moderate
* Testes	Interstitial Cell	Hyperplasia	Minimal
* Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CAUSE OF DEATH DUE TO NASAL INFECTION

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 71

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870341

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA TGLs = 2-16			
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
Note: [ FIBROSIS ] TGLs = 3-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 72

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870342

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla Cortex	Hyperplasia Vacuolization Cytoplasmic Degeneration Nephropathy Basophilic Focus Hepatodiaphragmatic Nodule	Moderate Focal, Mild Chronic, Mild Chronic, Marked
* Heart			
* Kidney			
* Liver	Bile Duct	Hyperplasia Inflammation	Mild Chronic Active, Mild
Note: HDN TGLs = 3-4			
Mammary Gland	Fat	Hyperplasia Inflammation	Cystic, Mild Chronic Active, Moderate
Mesentery			
Note: INFLAMMATION TGLs = 2-15			
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 73

TRT#: 1

SEX: Male

DAY ON TEST: 665

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870343

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Moderate
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-4		Vacuolization Cytoplasmic	Marked
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 4-16			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLs = 3-1 ]			
Stomach	Forestomach	Inflammation	Acute, Mild
Note: INFLAMMATION TGLs = 6-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 73	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 665 <b>HISTO:</b> 870343
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
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PRIMARY CAUSE OF DEATH

-

Animal Note: TGL1-10, TESTIS SIZE WITHIN NORMAL LIMITS

Animal Note: COD, LEUKEMIA MONONUCLEAR

Animal Note: TGL4-16, IS MESENTERIC FAT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 74

TRT#: 1

SEX: Male

DAY ON TEST: 648

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870344

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Moderate
	Medulla	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 9-4,10-4		
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC	TGLs = 8-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-7,5-2,6-6,4-5		
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Preputial Gland		Carcinoma	
Note: CARCINOMA	TGLs = 1-15		
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
[ Fibrosis TGLS = 3-16 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 74	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 648 <b>HISTO:</b> 870344
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 2-16 ]

Stomach Note: ULCER      TGLs = 11-6	Forestomach	Ulcer	Mild
* Testes Note: ADENOMA      TGLs = 7-10	Bilateral, Interstit Cell	Adenoma	
* Thymus Tooth	Dentine, Incisor	Depletion Lymphoid Necrosis	Moderate Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 75

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870345

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

MISSING

\* Thymus

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Note: CLEAR CL FOCUS TGLs = 5-17			
* Lung	Alveolar Epith	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 3-7			
* Prostate		Inflammation	Chronic Active, Moderate
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1-15			
* Spleen		Fibrosis	Mild
Note: FIBROSIS TGLs = 4-16			
* Testes	Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 75

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870345

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 76

TRT#: 1

SEX: Male

DAY ON TEST: 145

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870346

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Parathyroid Gland  
\* Salivary Glands  
Stomach - Forestomach  
Trachea

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Pituitary Gland  
Seminal Vesicle  
\* Testes  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Preputial Gland  
Skin  
\* Thyroid Gland

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
\* Pancreas  
\* Prostate  
\* Spleen  
Tooth

MISSING

\* Thymus

OBSERVATIONS

\* Kidney  
Mammary Gland  
\* Nose  
  
Stomach

Sinus  
Mucosa  
  
Glandular

Nephropathy  
Hyperplasia  
Foreign Body  
Inflammation  
Metaplasia  
Dysplasia

Chronic, Minimal  
Cystic, Mild  
Moderate  
Chronic Active, Moderate  
Squamous, Mild  
Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL1-6,2-6,3-6, DILATATION WITHIN NORMAL LIMITS, NCL

Animal Note: MORIBUND SAC DUE TO UPPER RESPIRATORY FUNGAL INFECTION

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 77

TRT#: 1

SEX: Male

DAY ON TEST: 570

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870347

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Liver
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
Bone	Humerus	Fibrous Osteodystrophy	Moderate
	Maxilla	Fibrous Osteodystrophy	Mild
	Thoracic, Vertebra	Fibrous Osteodystrophy	Minimal
	Tibia	Fibrous Osteodystrophy	Mild
* Bone Marrow	Femoral	Myelofibrosis	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-1 ]			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Stomach	Forestomach	Acanthosis	Moderate
	Forestomach	Inflammation	Chronic Active, Moderate
	Forestomach	Ulcer	Moderate
Note: ACANTHOSIS TGLs = 5-6			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 77

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 570

**DOSE:** 0 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870347

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: MORIBUND SAC DUE TO NEPHROPATHY, MARKED

Animal Note: TGL4-15, ONLY LIVER FOLD, NO NODULE

Animal Note: UNDECALCIFIED LOWER INCISORS BROKEN

Animal Note: TGL2-10, TESTIS RECORDED AS SMALL IS WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 78

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870348

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Bone	Humerus	Osteosclerosis	Minimal
Note: HUMERUS, APPEARS ASSOCIATED WITH FIBROSIS OF MARROW.			
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-15			
Note: CATARACT TGLs = 1-15			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
[ Nephropathy TGLS = 6-1 ]			
* Liver	Hepatocyte	Basophilic Focus	
	Bile Duct	Degeneration	Cystic, Mild
		Hyperplasia	Moderate
Note: LEUKEMIA MONUC TGLs = 5-4		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

**ANIMAL ID:** 78

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870348

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
Note: ADENOMA	TGLs = 4-10		
* Thymus		Depletion Lymphoid	Marked
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Mild Multifocal, Minimal

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL7-16, STOMACH WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 79

TRT#: 1

SEX: Male

DAY ON TEST: 677

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870349

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	Seminal Vesicle	Stomach - Forestomach	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 9-4,9-15		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 7-5,7-7,8-2,8-16,10-6		
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Marked
Note: INFLAMMATION	TGLs = 5-19		
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 2-7		
* Preputial Gland		Adenoma	
Note: ADENOMA	TGLs = 3-17		
* Prostate		Inflammation	Chronic Active, Moderate
Skin		Keratoacanthoma	
Note: KERATOACANTHMA	TGLs = 1-18		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 79	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 677 <b>HISTO:</b> 870349
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Spleen [ Leukemia Mononuclear TGLS = 6-1 ]		Leukemia Mononuclear	
Stomach Note: NECROSIS TGLs = 11-6,11-20	Glandular	Necrosis	Mild
* Testes Note: ATROPHY TGLs = 4-10	Seminif Tub	Atrophy	Moderate
* Thymus		Depletion Lymphoid	Moderate
Tooth	Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 80

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870350

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Parathyroid Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Adenoma	
	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-15			
Note: ATROPHY TGLs = 1-15			
* Heart		Degeneration	Chronic, Mild
		Thrombosis	
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 6-1 ]			
* Liver	Hepatocyte	Clear Cell Focus	Cystic, Mild
	Bile Duct	Degeneration	Marked
		Hyperplasia	
		Leukemia Mononuclear	
Note: CLEAR CL FOCUS TGLs = 8-17			
Note: LEUKEMIA MONUC TGLs = 3-4			
* Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7-2,7-3			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4-2			

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 80

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870350

**ORGAN AND ACCOUNTABLE SITE STATUS**

Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Intermed	Cyst	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Minimal
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-16 ]			
Stomach	Forestomach	Acanthosis	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 5-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 81

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870351

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-15			
Note: ATROPHY TGLs = 1-15			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
Note: CLEAR CL FOCUS TGLs = 4-17			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Skin		Squamous Cell Papilloma	
Note: SQ CL PAPILOM TGLs = 2-16			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 3-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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<b>ANIMAL ID:</b> 81	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b> 870351
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
	Dentine, Incisor	Necrosis	Multifocal, Minimal
<b>PRIMARY CAUSE OF DEATH</b>	-		

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 82

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870352

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Leukemia Mononuclear	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-16			
Note: ATROPHY TGLs = 1-16			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7-7,8-6			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Intermed	Cyst	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 4-10,5-10			
* Thymus		Depletion Lymphoid	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 82

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870352

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**ORGAN AND ACCOUNTABLE SITE STATUS**

\* Thyroid Gland

C Cell

Hyperplasia

Mild

Tooth

Lower, Molar, Peridont Tiss

Inflammation

Suppurative, Chronic, Moderate

Dentine, Incisor

Necrosis

Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL2-16, SMALL EYE DUE TO IATROGENIC COLLAPSE

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 83

TRT#: 1

SEX: Male

DAY ON TEST: 646

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870353

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
Skin	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC	TGLs = 1-15,1-16,1-17		
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: HYPERPLASIA	TGLs = 3-10		
Note: ADENOMA	TGLs = 2-10		
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LARGE MASS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 84

TRT#: 1

SEX: Male

DAY ON TEST: 570

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870354

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
* Thyroid Gland	Trachea	* Urinary Bladder	

MISSING

Mammary Gland

OBSERVATIONS

* Adrenal Gland	Medulla	Hemorrhage	Moderate
	Medulla	Hyperplasia	Mild
Eye	Retina	Atrophy	Mild
Note: ATROPHY TGLs = 1-18			
* Heart		Degeneration	Chronic, Moderate
Intestine Large	Cecum	Congestion	Marked
Note: CONGESTION TGLs = 8-6			
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
Note: LEUKEMIA MONUC TGLs = 5-4			
* Lung		Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 9-15			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-7,3-2,7-17			
* Pancreas	Acinus	Atrophy	Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 84	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 570 <b>HISTO:</b> 870354
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LEUKEMIA MONUC TGLs = 4-16,6-16

Stomach	Glandular	Ulcer	Mild
* Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
* Thymus		Leukemia Mononuclear	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 85

TRT#: 1

SEX: Male

DAY ON TEST: 716

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870355

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
		Thrombosis	
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC	TGLs = 1-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-2		
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
	Vein	Thrombosis	
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 85	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 716
	<b>DOSE:</b> 0 PPM	<b>DISP:</b> Natural Death	<b>HISTO:</b> 870355

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LEUKEMIA MONUC	TGLs = 2-15			
* Testes		Bilateral, Interstit Cell Seminif Tub	Adenoma Atrophy	Mild
Note: ATROPHY	TGLs = 3-10			
* Thyroid Gland		C Cell Follicle Follicular Cel	Adenoma Cyst Hyperplasia	Mild
Tooth		Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 86

TRT#: 1

SEX: Male

DAY ON TEST: 533

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870356

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
Note: LEUKEMIA MONUC	TGLs = 7-4,9-4,10-15		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 1-7,6-20,8-17,11-16		
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION	TGLs = 5-18		
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-1		
Stomach	Forestomach	Acanthosis	Moderate
Note: ACANTHOSIS	TGLs = 12-19		

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 86	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 533 <b>HISTO:</b> 870356
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Seminif Tub Interstit Cell	Atrophy Hyperplasia	Mild Mild
Note: ATROPHY      TGLs = 3-10			
* Thymus		Leukemia Mononuclear	
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: TGL13-19, GLANDULAR STOMACH NORMAL ON MICRO

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 87

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870357

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
Bone	Cartilage, Humerus, Joint	Degeneration	Focal, Moderate
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
Note: FIBROSIS	TGLs = 2-15		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 1-10		
* Thymus		Depletion Lymphoid	Marked
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked
	Dentine, Incisor	Necrosis	Multifocal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 88

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870358

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Parathyroid Gland  
\* Salivary Glands  
Stomach - Glandular

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Pituitary Gland  
Seminal Vesicle  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Preputial Gland  
Skin  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Nose  
\* Prostate  
Stomach - Forestomach

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver

Degeneration  
Nephropathy  
Basophilic Focus  
Clear Cell Focus

Chronic, Mild  
Chronic, Moderate

Bile Duct

Hyperplasia  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear

Mild

Lymph Node

Mandibular  
Mesenteric

Hyperplasia  
Inflammation  
Leukemia Mononuclear

Cystic, Mild  
Chronic Active, Moderate

Mammary Gland

\* Pancreas

\* Spleen

\* Testes

Bilateral, Interstit Cell

Adenoma

Note: ADENOMA

TGLs = 1-10

\* Thymus

Depletion Lymphoid

Moderate

\* Thyroid Gland

C Cell

Adenoma

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-10, SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 89

TRT#: 1

SEX: Male

DAY ON TEST: 459

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870359

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Trachea	* Urinary Bladder

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Testes	Interstit Cell	Hyperplasia	Mild
Tooth	Molar, Peridont Tiss	Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 90

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870360

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Seminal Vesicle  
\* Thyroid Gland

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
Skin  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Pancreas  
Stomach - Forestomach  
\* Urinary Bladder

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Salivary Glands  
Stomach - Glandular

MISSING

\* Parathyroid Gland

OBSERVATIONS

Bone  
Ear  
Note: ACANTHOSIS TGLs = 6-16  
\* Heart  
\* Kidney  
[ Nephropathy TGLS = 3-1 ]  
\* Liver  
Note: LEUKEMIA MONUC TGLs = 5-4  
Lymph Node  
Mammary Gland  
Note: FIBROADENOMA TGLs = 1-15  
\* Nose  
\* Pituitary Gland

Humerus  
Maxilla  
Thoracic, Vertebra  
Tibia  
Pinna  
Bile Duct  
Mandibular  
Mesenteric  
Mucosa  
Pars Distalis

Fibrous Osteodystrophy  
Fibrous Osteodystrophy  
Fibrous Osteodystrophy  
Fibrous Osteodystrophy  
Acanthosis  
Degeneration  
Nephropathy  
Basophilic Focus  
Clear Cell Focus  
Hyperplasia  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Fibroadenoma  
Hyperplasia  
Inflammation  
Cyst

Minimal  
Minimal  
Minimal  
Minimal  
Moderate  
Chronic, Moderate  
Chronic, Marked  
Moderate  
Cystic, Moderate  
Chronic Active, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

**ANIMAL ID:** 90

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870360

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Preputial Gland	Pars Distalis	Hyperplasia	Mild
* Prostate		Inflammation	Chronic Active, Minimal
* Spleen		Inflammation	Chronic Active, Minimal
* Testes	Bilateral, Interstit Cell	Leukemia Mononuclear	
Note: ADENOMA	TGLs = 2-10	Adenoma	
* Thymus		Depletion Lymphoid	Marked
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL4-10, TESTIS SIZE WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 91

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870361

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-15		
Note: ATROPHY	TGLs = 1-15		
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Adenoma	
		Inflammation	Chronic Active, Mild
Note: INFLAMMATION	TGLs = 4-10		
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 91

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870361

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-10, SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 92

TRT#: 1

SEX: Male

DAY ON TEST: 459

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870362

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Pancreas  
Seminal Vesicle  
\* Thymus  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Parathyroid Gland  
Skin  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Prostate  
Stomach - Forestomach  
Tooth

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Trachea

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver  
  
Lymph Node  
  
Mammary Gland  
\* Pituitary Gland  
\* Preputial Gland  
Note: HYPERPLASIA TGLs = 1-10  
\* Spleen  
\* Testes

Bile Duct  
  
Mandibular  
Mesenteric  
  
Pars Distalis  
  
Interstit Cell

Degeneration  
Nephropathy  
Hyperplasia  
Inflammation  
Leukemia Mononuclear  
Vacuolization Cytoplasmic  
Leukemia Mononuclear  
Leukemia Mononuclear  
Hyperplasia  
Adenoma  
Hyperplasia  
  
Leukemia Mononuclear  
Hyperplasia

Chronic, Moderate  
Chronic, Mild  
Mild  
Chronic Active, Mild  
  
Mild  
  
Cystic, Mild  
  
Moderate  
  
Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 93

TRT#: 1

SEX: Male

DAY ON TEST: 459

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870363

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Inflammation	Chronic Active, Mild
		Metaplasia	Squamous, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 94

TRT#: 1

SEX: Male

DAY ON TEST: 684

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870364

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	* Nose	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 5-4			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 6-17			
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland	Duct	Cyst	
		Inflammation	Chronic Active, Mild
Note: CYST TGLs = 2-16			
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 94	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 684 <b>HISTO:</b> 870364
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Note: ATROPHY Note: ADENOMA * Thymus Tooth	TGLs = 4-10 TGLs = 3-10	Interstit Cell  Lower, Molar, Peridont Tiss Dentine, Incisor	Hyperplasia  Depletion Lymphoid Inflammation Necrosis
			Mild  Moderate Suppurative, Chronic, Moderate Multifocal, Minimal

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<b>PRIMARY CAUSE OF DEATH</b>	-
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Animal Note: TGL7-10, SEMINAL VESICLES WITHIN NORMAL LIMITS  
Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 95

TRT#: 1

SEX: Male

DAY ON TEST: 549

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870365

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Epididymis
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	Seminal Vesicle	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Brain		Compression	
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 1-17			
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 3-15			
Skin		Keratoacanthoma	
Note: KERATOACANTHOMA TGLs = 2-16			
* Testes	Interstit Cell	Hyperplasia	Minimal
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO PITUITARY TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 96

TRT#: 1

SEX: Male

DAY ON TEST: 543

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870366

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

Bone	Humerus	Fibrous Osteodystrophy	Minimal
	Maxilla	Fibrous Osteodystrophy	Mild
	Thoracic, Vertebra	Fibrous Osteodystrophy	Minimal
	Tibia	Fibrous Osteodystrophy	Minimal
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
		Mineralization	Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 7-1 ]			
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC	TGLs = 4-4,5-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Axillary	Leukemia Mononuclear	
	Deep Cervical	Leukemia Mononuclear	
	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6-18,8-2,9-15,10-17		
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Leukemia Mononuclear	
Seminal Vesicle		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 96

TRT#: 1

SEX: Male

DAY ON TEST: 543

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870366

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ATROPHY	TGLs = 2-10			
* Spleen			Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-16			
* Testes		Bilateral, Interstit Cell	Adenoma	
		Seminif Tub	Atrophy	Moderate
		Interstit Cell	Hyperplasia	Mild
Note: ATROPHY	TGLs = 1-10			
* Thymus			Leukemia Mononuclear	
Tooth		Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 97

TRT#: 1

SEX: Male

DAY ON TEST: 694

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870367

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Parathyroid Gland  
Seminal Vesicle  
Trachea

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Pituitary Gland  
Skin  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Prostate  
\* Spleen

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular

OBSERVATIONS

Bone  
  
\* Heart  
\* Kidney [ Nephropathy TGLS = 3-1 ]  
\* Liver  
  
Note: [ EOSIN FOCUS ] TGLs = 4-15  
Mammary Gland  
\* Nose  
\* Pancreas  
\* Preputial Gland  
Stomach  
\* Testes  
  
Note: ADENOMA TGLs = 2-10  
Note: ATROPHY TGLs = 1-10

Humerus  
Mandible  
Maxilla  
Thoracic, Vertebra  
Tibia  
  
Hepatocyte  
  
Sinus  
Mucosa  
Acinus  
  
Forestomach  
Interstit Cell  
Seminif Tub  
Interstit Cell

Fibrous Osteodystrophy  
Fibrous Osteodystrophy  
Fibrous Osteodystrophy  
Fibrous Osteodystrophy  
Fibrous Osteodystrophy  
Degeneration  
Nephropathy  
  
Degeneration  
Eosinophilic Focus  
  
Hyperplasia  
Foreign Body  
Inflammation  
Atrophy  
Inflammation  
Acanthosis  
Adenoma  
Atrophy  
Hyperplasia

Moderate  
Moderate  
Mild  
Mild  
Moderate  
Chronic, Mild  
Chronic, Marked  
  
Cystic, Mild  
  
Cystic, Moderate  
Moderate  
Chronic Active, Moderate  
Mild  
Chronic Active, Mild  
Moderate  
  
Moderate  
Mild

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 97	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 694 <b>HISTO:</b> 870367
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	Follicular Cel	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH** -

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Animal Note: TGL5-6,6-6, SMALL INTESTINE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 98

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870368

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
* Bone Marrow	Femoral	Leukemia Mononuclear	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-17			
Note: ATROPHY TGLs = 1-17			
* Heart		Degeneration	Chronic, Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-1 ]			
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-4			
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6-5,6-7,7-2,8-6,8-16,9-18			
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 98

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870368

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-15		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	
	Follicle	Cyst	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 99

TRT#: 1

SEX: Male

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870369

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
\* Salivary Glands  
Stomach - Forestomach  
\* Thyroid Gland  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tissue NOS

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Liver  
\* Nose  
\* Preputial Gland  
Skin  
\* Testes  
Tooth

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Pancreas  
\* Prostate  
\* Spleen  
\* Thymus  
Trachea

**OBSERVATIONS**

\* Heart  
\* Kidney  
Mammary Gland

Degeneration  
Nephropathy  
Hyperplasia

Chronic, Mild  
Chronic, Minimal  
Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 100

TRT#: 1

SEX: Male

DAY ON TEST: 459

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870370

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	

**MISSING**

Mammary Gland

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Mild
* Pancreas	Acinus	Atrophy	Marked
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 101

TRT#: 3

SEX: Male

DAY ON TEST: 464

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870471

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Prostate  
\* Spleen  
\* Thyroid Gland

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Forestomach  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Parathyroid Gland  
Seminal Vesicle  
Stomach - Glandular  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pituitary Gland  
Skin  
\* Thymus

**OBSERVATIONS**

\* Heart  
\* Kidney  
\* Liver  
  
Mammary Gland  
\* Pancreas  
\* Preputial Gland  
\* Testes  
Tooth

Bile Duct

Acinus

Interstit Cell

Dentine, Incisor

Degeneration  
Nephropathy  
Hyperplasia  
Vacuolization Cytoplasmic  
Hyperplasia  
Atrophy  
Inflammation  
Hyperplasia  
Necrosis

Chronic, Minimal  
Chronic, Mild  
Mild  
Mild  
Cystic, Mild  
Mild  
Chronic Active, Mild  
Mild  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: SPECIAL CONTROL SAC,

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 102

TRT#: 3

SEX: Male

DAY ON TEST: 677

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870472

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Note: [ PHEOCHROM BGN ] TGLs = 4-7			
Bone	Humerus	Fibrous Osteodystrophy	Mild
	Mandible	Fibrous Osteodystrophy	Mild
	Maxilla	Fibrous Osteodystrophy	Mild
	Thoracic, Vertebra	Fibrous Osteodystrophy	Moderate
	Tibia	Fibrous Osteodystrophy	Moderate
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-1 ]			
* Liver		Angiectasis	Marked
	Bile Duct	Hyperplasia	Marked
Note: [ HYPERPLASIA ] TGLs = 2-4			
Mammary Gland		Hyperplasia	Cystic, Minimal
* Pancreas	Acinus	Atrophy	Moderate
* Preputial Gland		Hyperplasia	Glandular, Mild
* Spleen	Capsule	Cyst	Multiple
Note: [ CYST ] TGLs = 6-15,7-15			
Stomach	Forestomach	Acanthosis	Moderate
Note: [ ACANTHOSIS ] TGLs = 8-6			
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 102	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 677
	<b>DOSE:</b> SPECIAL CONTROL	<b>DISP:</b> Special Control	<b>HISTO:</b> 870472

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: [ ADENOMA ] TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	Bilateral, C Cell	Adenoma	
Note: [ ADENOMA ] TGLs = 5-7			
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 103

TRT#: 3

SEX: Male

DAY ON TEST: 726

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870473

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

Bone	Tibia	Fibrous Osteodystrophy	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Moderate
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: [ HYPERPLASIA ] TGLs = 6-16			
Note: [ LEUKEMIA MONUC ] TGLs = 1-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Marked
* Pituitary Gland	Pars Intermed	Cyst	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
Note: [ FIBROSIS ] TGLs = 5-15			
[ Fibrosis TGLS = 4-15 ]			
* Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 103	<b>TRT#:</b> 3 <b>DOSE:</b> SPECIAL CONTROL	<b>SEX:</b> Male <b>DISP:</b> Special Control	<b>DAY ON TEST:</b> 726 <b>HISTO:</b> 870473
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Note: [ ATROPHY ] TGLs = 2-10 Note: [ ADENOMA ] TGLs = 3-10 * Thymus * Thyroid Gland Tooth	Interstit Cell  C Cell Lower, Molar, Peridont Tiss Dentine, Incisor	Hyperplasia  Depletion Lymphoid Adenoma Inflammation Necrosis	Mild  Moderate  Suppurative, Chronic, Moderate Multifocal, Minimal
<b>PRIMARY CAUSE OF DEATH</b>	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 104

TRT#: 3

SEX: Male

DAY ON TEST: 620

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870474

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Parathyroid Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Note: [ HYPERPLASIA ] TGLs = 5-7			
* Preputial Gland		Adenoma	
Note: [ ADENOMA ] TGLs = 1-10			
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-15,4-15 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 2-10			
* Thymus		Depletion Lymphoid	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 104	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 620
	<b>DOSE:</b> SPECIAL CONTROL	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> 870474

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 106

TRT#: 3

SEX: Male

DAY ON TEST: 404

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870476

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 107

TRT#: 3

SEX: Male

DAY ON TEST: 544

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870477

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
Trachea	* Urinary Bladder		

OBSERVATIONS

* Kidney		Nephropathy	Chronic, Mild
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
		Vacuolization Cytoplasmic	Mild
[ Hyperplasia TGLS = 2-15 ]			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Mucosa	Inflammation	Acute, Moderate
	Mucosa	Ulcer	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 1-10			
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: SPECIAL CONTROL SAC

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 108

TRT#: 3

SEX: Male

DAY ON TEST: 716

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870478

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mesenteric
Mammary Gland	* Nose	* Parathyroid Gland	* Prostate
Seminal Vesicle	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: [ ATROPHY ] TGLs = 4-16			
Note: [ CATARACT ] TGLs = 4-16			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
Lymph Node	Mandibular	Hemangiosarcoma	Metastatic (Skin)
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Salivary Glands		Hemangiosarcoma	Metastatic (Skin)
Skin	Subcut Tiss	Hemangiosarcoma	
Note: [ HEMANGIOSARC ] TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
Note: [ ADENOMA ] TGLs = 3-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 108

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 716

**DOSE:** SPECIAL CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 870478

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: THE SUBCUTIS SKIN AREA

Animal Note: TGL1-15, SALIVARY GLAND MASS IS INVASIVE FROM

Animal Note: TGL2-10, SIZE OF TESTIS WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 109

TRT#: 3

SEX: Male

DAY ON TEST: 670

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870479

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Parathyroid Gland	* Pituitary Gland	* Prostate
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Moderate
	Medulla	Pheochromocytoma Benign	
Note: [ HYPERPLASIA ] TGLs = 6-7			
Ductus Deferens		Hemorrhage	Marked
Note: [ HEMORRHAGE ] TGLs = 8-18			
* Epididymis		Hemorrhage	Marked
		Inflammation	Chronic Active, Moderate
Note: [ HEMORRHAGE ] TGLs = 7-17			
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Mild
Note: [ ATROPHY ] TGLs = 1-15			
Note: [ CATARACT ] TGLs = 1-15			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Angiectasis	Moderate
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 109

TRT#: 3

SEX: Male

DAY ON TEST: 670

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870479

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Chronic Active, Mild
* Salivary Glands		Carcinoma	
Note: [ CARCINOMA ] TGLs = 2-20			
* Spleen		Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 5-16			
* Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
Note: [ ADENOMA ] TGLs = 3-10,10-10			
Note: [ ATROPHY ] TGLs = 4-10			
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: AND SKIN TUMOR

Animal Note: TGL9-19, NO LESION ON SLIDE

Animal Note: TGL2-20, SKIN MASS IS SALIVARY GLAND TUMOR ON MICRO

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 110

TRT#: 3

SEX: Male

DAY ON TEST: 591

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870480

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
Seminal Vesicle  
\* Thyroid Gland

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Lung  
\* Pancreas  
\* Spleen  
Trachea

OBSERVATIONS

Eye  
Note: [ ATROPHY ] TGLs = 3-15  
Note: [ CATARACT ] TGLs = 3-15  
\* Kidney  
\* Liver  
Mammary Gland  
\* Pituitary Gland  
\* Preputial Gland  
\* Prostate  
Skin  
Note: [ KERATOACANTHOMA ] TGLs = 1-16,2-17  
\* Testes  
\* Thymus  
Tooth

Retina  
Lens  
Bile Duct  
Pars Distalis  
Interstit Cell  
Interstit Cell  
Dentine, Incisor

Atrophy  
Cataract  
Nephropathy  
Hyperplasia  
Vacuolization Cytoplasmic  
Hyperplasia  
Adenoma  
Inflammation  
Inflammation  
Keratoacanthoma  
Adenoma  
Hyperplasia  
Depletion Lymphoid  
Necrosis

Marked  
Mild  
Chronic, Marked  
Minimal  
Mild  
Cystic, Moderate  
Chronic Active, Mild  
Chronic Active, Minimal  
Multiple  
Mild  
Mild  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 111

TRT#: 3

SEX: Male

DAY ON TEST: 555

DOSE: SPECIAL CONTROL

DISP: Natural Death

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Brain		Compression	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
* Nose	Mucosa	Inflammation	Acute, Moderate
	Mucosa	Ulcer	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
Note: [ ADENOMA ] TGLs = 1-15			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Adenoma	
Note: [ ADENOMA ] TGLs = 2-10			
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, PITUITARY TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 112

TRT#: 3

SEX: Male

DAY ON TEST: 537

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870482

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
Seminal Vesicle	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
	Medulla	Pheochromocytoma Benign	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: [ HDN ] TGLs = 5-17			
Note: [ LEUKEMIA MONUC ] TGLs = 6-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 2-7,7-6,8-15			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Mucosa	Inflammation	Acute, Mild
* Pancreas	Acinus	Atrophy	Moderate
* Prostate		Inflammation	Chronic Active, Minimal
Skin	Sebaceous Gl	Adenoma	
Note: [ ADENOMA ] TGLs = 1-19			
* Spleen		Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 3-16			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 112	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 537
	<b>DOSE:</b> SPECIAL CONTROL	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> 870482

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Stomach	Forestomach	Inflammation	Chronic Active, Mild
	Forestomach	Ulcer	Mild
	Glandular	Ulcer	Mild
Note: [ ULCER ] TGLs = 9-18			
Note: [ ULCER ] TGLs = 10-6			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 4-10			
* Thymus		Leukemia Mononuclear	
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 113

TRT#: 3

SEX: Male

DAY ON TEST: 180

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870483

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
 \* Brain  
 Intestine Large - Colon  
 Intestine Small - Jejunum  
 Lymph Node - Mesenteric  
 \* Prostate  
 Stomach - Forestomach  
 \* Thyroid Gland

\* Adrenal Gland - Medulla  
 \* Epididymis  
 Intestine Large - Rectum  
 \* Islets, Pancreatic  
 \* Nose  
 \* Salivary Glands  
 Stomach - Glandular  
 Tooth

Bone  
 Esophagus  
 Intestine Small - Duodenum  
 \* Liver  
 \* Pancreas  
 Seminal Vesicle  
 \* Testes  
 Trachea

\* Bone Marrow  
 Intestine Large - Cecum  
 Intestine Small - Ileum  
 Lymph Node - Mandibular  
 \* Parathyroid Gland  
 \* Spleen  
 \* Thymus  
 \* Urinary Bladder

OBSERVATIONS

\* Heart  
 \* Kidney  
 \* Lung  
 Mammary Gland  
 \* Pituitary Gland  
 \* Preputial Gland  
 Skin

Pars Intermed  
  
 Subcut Tiss

Degeneration  
 Nephropathy  
 Inflammation  
 Hyperplasia  
 Cyst  
 Inflammation  
 Schwannoma Malignant

Chronic, Mild  
 Chronic, Minimal  
 Chronic Active, Marked  
 Cystic, Moderate  
  
 Chronic Active, Mild

Note: [ SCHWANNOMA MAL ] TGLs = 1-14

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MASS ON FACE

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 114

TRT#: 3

SEX: Male

DAY ON TEST: 627

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870484

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Ileum	Intestine Small - Jejunum	Lymph Node - Mesenteric
* Parathyroid Gland	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland Note: [ PHEOCHROM BGN ] TGLs = 6-7	Bilateral, Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Mild
Intestine Small	Duodenum	Ulcer	Moderate
* Islets, Pancreatic		Adenoma	
* Kidney  Note: [ NEPHROPATHY ] TGLs = 5-1		Leukemia Mononuclear	
* Liver		Nephropathy	Chronic, Moderate
		Basophilic Focus	
	Bile Duct	Hepatodiaphragmatic Nodule	
		Hyperplasia	Mild
		Leukemia Mononuclear	
Note: [ HDN ] TGLs = 3-16,4-16			
* Lung Note: [ INFLAMMATION ] TGLs = 7-2,7-3		Inflammation	Chronic Active, Moderate
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Mucosa	Inflammation	Acute, Moderate
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

**ANIMAL ID:** 114

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 627

**DOSE:** SPECIAL CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 870484

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Leukemia Mononuclear TGLS = 2-15 ]

* Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
Note: [ ATROPHY ] TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

Animal Note: TGL8-17,9-3,LUNG CYST NOT APPARENT ON MICRO,

Animal Note: OR IN WET TISSUE

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 115

TRT#: 3

SEX: Male

DAY ON TEST: 584

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870485

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 1-10			
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 116

TRT#: 3

SEX: Male

DAY ON TEST: 561

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870486

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Pancreas	* Preputial Gland	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Trachea	* Urinary Bladder

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Lung	Alveolar Epith	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
* Nose	Mucosa	Inflammation	Acute, Mild
* Pituitary Gland	Pars Distalis	Cyst	
* Prostate		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 1-10,3-10			
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-15, LIVER NODULE NOT PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 119

TRT#: 3

SEX: Male

DAY ON TEST: 710

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870489

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
Ear	Pinna	Neurofibrosarcoma	
Note: [ NEUROFIBROSARC ] TGLs = 1-17			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Note: [ CLEAR CL FOCUS ] TGLs = 5-16			
Lymph Node	Mandibular	Infiltration Cellular	Histiocyte, Moderate
	Mediastinal	Infiltration Cellular	Histiocyte, Moderate
	Mesenteric	Infiltration Cellular	Histiocyte, Moderate
Note: [ INFILTRAT CELL ] TGLs = 6-5,6-7,7-2			
Mammary Gland		Hyperplasia	Cystic, Minimal
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Fibrous Histiocytoma	
Note: [ FIB HISTIOCYT ] TGLs = 4-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: [ ADENOMA ] TGLs = 2-10,3-10			
* Thymus		Depletion Lymphoid	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 119

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 710

**DOSE:** SPECIAL CONTROL

**DISP:** Special Control

**HISTO:** 870489

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth

Lower, Molar, Peridont Tiss

Inflammation

Suppurative, Chronic, Moderate

Dentine, Incisor

Necrosis

Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 120

TRT#: 3

SEX: Male

DAY ON TEST: 655

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870490

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
Note: [ HDN ] TGLs = 3-15			
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pancreas	Artery	Inflammation	Chronic Active, Moderate
Note: [ INFLAMMATION ] TGLs = 4-6			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Note: [ HYPERPLASIA ] TGLs = 2-7			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: [ ADENOMA ] TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 121

TRT#: 3

SEX: Male

DAY ON TEST: 533

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870491

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

Bone			
Note: IS NOT PRESENT			
Note: MAXILLA, ANTERIOR PRESENT, POSTERIOR WITH MOLAR			
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Spleen		Leukemia Mononuclear	
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
Zymbal's Gland		Carcinoma	
Note: [ CARCINOMA ] TGLs = 1-16,1-17			

PRIMARY CAUSE OF DEATH

-

Animal Note: SECTION WITH MOLAR IS NOT PRESENT.

Animal Note: TGL2-15, FOCUS NOT APPARENT ON MICRO

Animal Note: MAXILLA, ANTERIOR SECTION PRESENT. POSTERIOR

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 121

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 533

**DOSE:** SPECIAL CONTROL

**DISP:** Special Control

**HISTO:** 870491

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 122

TRT#: 3

SEX: Male

DAY ON TEST: 388

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870492

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 123

TRT#: 3

SEX: Male

DAY ON TEST: 602

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870493

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Moderate
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Mesentery	Fat	Inflammation	Chronic Active, Mild
Note: [ INFLAMMATION ] TGLs = 1-15			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 2-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-16, FOCUS NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 125

TRT#: 3

SEX: Male

DAY ON TEST: 680

DOSE: SPECIAL CONTROL

DISP: Natural Death

HISTO: 870495

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Epididymis	Esophagus
Harderian Gland	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
Seminal Vesicle	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
Intestine Large	Cecum	Ulcer	Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
Note: [ LEUKEMIA MONUC ] TGLs = 5-4			
Note: [ LEUKEMIA MONUC ] TGLs = 5-4			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: [ INFLAMMATION ] TGLs = 3-16			
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: [ ADENOMA ] TGLs = 6-7			
* Prostate		Inflammation	Chronic Active, Moderate
Skin	Subcut Tiss	Foreign Body	Marked
		Hyperkeratosis	Marked

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 125

TRT#: 3

SEX: Male

DAY ON TEST: 680

DOSE: SPECIAL CONTROL

DISP: Natural Death

HISTO: 870495

ORGAN AND ACCOUNTABLE SITE STATUS

	Subcut Tiss	Inflammation	Chronic Active, Marked
Note: [ INFLAMMATION ]	TGLs = 1-18,1-19		
Note: [ FOREIGN BODY ]	TGLs = 1-18,1-19		
Note: [ HYPERKERATOSIS ]	TGLs = 11-20		
* Spleen		Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ]	TGLs = 4-15		
Stomach	Forestomach	Ulcer	Moderate
	Glandular	Ulcer	Moderate
Note: [ ULCER ]	TGLs = 8-17,9-17		
Note: [ ULCER ]	TGLs = 7-6		
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
	Serosa	Inflammation	Chronic Active, Moderate
Note: [ INFLAMMATION ]	TGLs = 10-18		
Note: [ ADENOMA ]	TGLs = 10-10		
* Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD LEUKEMIA MONONUCLEAR

Animal Note: TGL2-10,2-18 TESTIS SIZE WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 126

TRT#: 3

SEX: Male

DAY ON TEST: 613

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870496

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Brain	* Epididymis	Esophagus
* Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

MISSING

Mammary Gland

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
Bone	Humerus	Osteosclerosis	Minimal
	Tibia	Osteosclerosis	Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Kidney		Nephropathy	Chronic, Mild
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: [ HDN ] TGLs = 6-4			
Note: [ LEUKEMIA MONUC ] TGLs = 5-4			
* Lung		Leukemia Mononuclear	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-1,2-1 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
Note: [ ATROPHY ] TGLs = 4-10			
Note: [ ADENOMA ] TGLs = 3-10			
* Thymus		Depletion Lymphoid	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 126

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 613

**DOSE:** SPECIAL CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 870496

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 127

TRT#: 3

SEX: Male

DAY ON TEST: 575

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870497

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
* Epididymis	Serosa	Mesothelioma Malignant	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Nose	Mucosa	Inflammation	Acute, Mild
* Pancreas	Acinus	Atrophy	Mild
* Prostate		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
	Serosa	Mesothelioma Malignant	
Note: [ ADENOMA ] TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 128

TRT#: 3

SEX: Male

DAY ON TEST: 422

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870498

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 129

TRT#: 3

SEX: Male

DAY ON TEST: 522

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870499

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Hepatodiaphragmatic Nodule	
		Vacuolization Cytoplasmic	Mild
Note: [ HDN ] TGLs = 2-15			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Testes	Interstitial Cell	Adenoma	
	Interstitial Cell	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 1-10			
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 131

TRT#: 3

SEX: Male

DAY ON TEST: 317

DOSE: SPECIAL CONTROL

DISP: Natural Death

HISTO: 870501

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Pancreas  
Seminal Vesicle  
Stomach - Glandular  
Trachea

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Pituitary Gland  
Skin  
\* Testes  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Kidney  
\* Prostate  
\* Spleen  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Nose  
\* Salivary Glands  
Stomach - Forestomach  
Tooth

MISSING

Mammary Gland

\* Parathyroid Gland

\* Thymus

OBSERVATIONS

\* Heart  
\* Liver  
\* Lung  
Lymph Node

Mediastinum  
Mandibular  
Mediastinal  
Mesenteric

Degeneration  
Vacuolization Cytoplasmic  
Mesothelioma Malignant  
Mesothelioma Malignant  
Mesothelioma Malignant  
Mesothelioma Malignant

Chronic, Mild  
Mild  
Metastatic (Mesentery)  
Metastatic (Mesentery)  
Metastatic (Mesentery)  
Metastatic (Mesentery)

Note: [ MESOTHELIO MAL ] TGLs = 2-14,5-16,7-18

\* Mesentery

Fat

Hemorrhage  
Mesothelioma Malignant

Moderate

Note: [ HEMORRHAGE ] TGLs = 4-15

Note: [ MESOTHELIO MAL ] TGLs = 6-17

\* Preputial Gland

Inflammation

Chronic Active, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CAUSE OF DEATH, MALIGNANT MESOTHELIOMA

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 132

TRT#: 3

SEX: Male

DAY ON TEST: 634

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870502

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
Oral Mucosa	Buccal	Squamous Cell Carcinoma	
* Prostate		Inflammation	Chronic Active, Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 1-10			
* Thymus		Depletion Lymphoid	Marked
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

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Animal Note: MORIBUND SAC DUE TO MALOCCLUSION

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 133

TRT#: 3

SEX: Male

DAY ON TEST: 414

DOSE: SPECIAL CONTROL

DISP: Natural Death

HISTO: 870503

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder			

INSUFFICIENT TISSUE

\* Pituitary Gland

OBSERVATIONS

* Heart		Degeneration Mineralization	Chronic, Marked Marked
* Kidney		Nephropathy	Chronic, Mild
* Liver		Vacuolization Cytoplasmic	Mild
* Lung		Thymoma Malignant	Metastatic (Thymus)
Note: [ THYMOMA MAL ] TGLs = 3-2,3-3			
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Spleen		Depletion Lymphoid	Mild
Stomach	Glandular	Mineralization	Marked
Note: [ MINERALIZATION ] TGLs = 4-6			
* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 1-10			
* Thymus		Thymoma Malignant	
Note: [ THYMOMA MAL ] TGLs = 2-14			

PRIMARY CAUSE OF DEATH

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Animal Note: CAUSE OF DEATH, MALIGNANT THYMIC TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 134

TRT#: 3

SEX: Male

DAY ON TEST: 645

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870504

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Inguinal	Leukemia Mononuclear	
	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ]	TGLs = 1-17,5-16,6-15,8-18,9-6,10-19		
Mammary Gland		Hyperplasia	Cystic, Mild
Peripheral Nerve	Sciatic	Degeneration	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Spinal Cord		Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ]	TGLs = 7-21		
* Spleen		Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ]	TGLs = 2-1		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 134	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 645
	<b>DOSE:</b> SPECIAL CONTROL	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> 870504

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 4-10			
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR  
Animal Note: LEUKEMIA MONONUCLEAR IN THORACIC VERTEBRAE  
Animal Note: SECTION MAKES SECTION OFF CENTER

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 135

TRT#: 3

SEX: Male

DAY ON TEST: 660

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870505

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Prostate		Inflammation	Chronic Active, Mild
* Testes	Interstitial Cell	Adenoma	
	Interstitial Cell	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 136

TRT#: 3

SEX: Male

DAY ON TEST: 570

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870506

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Trachea	* Urinary Bladder		

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Cyst	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Hyperplasia	Reticulum Cell, Marked
Note: [ HYPERPLASIA ] TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 137

TRT#: 3

SEX: Male

DAY ON TEST: 695

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870507

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Brain	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
Bone	Humerus	Fibrous Osteodystrophy	Mild
	Mandible	Fibrous Osteodystrophy	Mild
	Maxilla	Fibrous Osteodystrophy	Mild
	Tibia	Fibrous Osteodystrophy	Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Epididymis		Inflammation	Chronic Active, Moderate
Harderian Gland		Hyperplasia	Moderate
* Heart		Degeneration	Chronic, Mild
Intestine Small	Ileum	Adenocarcinoma	
Note: [ ADENOCARC ] TGLs = 7-15			
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: [ LEUKEMIA MONUC ] TGLs = 4-4			
* Lung	Alveolar Epith	Hyperplasia	Moderate
Lymph Node	Mediastinal	Depletion Lymphoid	Moderate
	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
[ Depletion Lymphoid TGLS = 5-6 ]			
Mammary Gland		Hyperplasia	Cystic, Marked
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin		Keratoacanthoma	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 137

TRT#: 3

SEX: Male

DAY ON TEST: 695

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870507

ORGAN AND ACCOUNTABLE SITE STATUS

Note: [ KERATOACANTHMA ] TGLs = 1-17			
* Spleen		Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 3-1			
Stomach	Forestomach	Acanthosis	Moderate
	Forestomach	Ulcer	Moderate
	Glandular	Ulcer	Moderate
Note: [ ULCER ] TGLs = 8-6,8-16			
Note: [ ULCER ] TGLs = 9-6,9-16			
Note: [ ACANTHOSIS ] TGLs = 6-16			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: [ ADENOMA ] TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

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Animal Note: TGL7-15, IS ILEUM MASS, NOT MESENTERIC FAT

Animal Note: MORIBUND SAC DUE TO LEUKEMIA AND ILEUM MASS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 138

TRT#: 3

SEX: Male

DAY ON TEST: 607

DOSE: SPECIAL CONTROL

DISP: Natural Death

HISTO: 870508

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Nose
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Moderate
Note: [ LEUKEMIA MONUC ] TGLs = 5-16			
* Lung		Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 4-2,4-3			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 3-2			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: [ ADENOMA ] TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Marked Multifocal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

---

**ANIMAL ID:** 138

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 607

**DOSE:** SPECIAL CONTROL

**DISP:** Natural Death

**HISTO:** 870508

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 139

TRT#: 3

SEX: Male

DAY ON TEST: 614

DOSE: SPECIAL CONTROL

DISP: Natural Death

HISTO: 870509

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mesenteric	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
* Thyroid Gland	Trachea		

MISSING

* Thymus	* Urinary Bladder
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OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Leukemia Mononuclear	
* Epididymis	Serosa	Mesothelioma Malignant	
* Heart		Thrombosis	
Note: [ THROMBUS ] TGLs = 10-16			
Intestine Large	Colon	Mesothelioma Malignant	
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
[ Leukemia Mononuclear TGLS = 8-4 ]			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 7-2,7-15			
Mammary Gland		Hyperplasia	Cystic, Mild
* Mesentery		Mesothelioma Malignant	
Note: [ MESOTHELIO MAL ] TGLs = 4-15,9-15			
* Nose	Mucosa	Inflammation	Acute, Mild
	Mucosa	Ulcer	Mild
* Pancreas	Serosa	Mesothelioma Malignant	
Note: [ MESOTHELIO MAL ] TGLs = 5-6			

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 139

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 614

**DOSE:** SPECIAL CONTROL

**DISP:** Natural Death

**HISTO:** 870509

**ORGAN AND ACCOUNTABLE SITE STATUS**

\* Preputial Gland

Adenoma

Inflammation

Chronic Active, Mild

Note: [ ADENOMA ] TGLs = 1-10

\* Spleen

Fibrosis

Leukemia Mononuclear

Moderate

Note: [ FIBROSIS ] TGLs = 6-15

Stomach

Glandular

Mesothelioma Malignant

\* Testes

Bilateral, Interstit Cell

Adenoma

Serosa

Mesothelioma Malignant

Note: [ ADENOMA ] TGLs = 2-10

Tooth

Lower, Molar, Peridont Tiss

Inflammation

Suppurative, Chronic, Moderate

Dentine, Incisor

Necrosis

Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL9-15,SKIN,SCROTAL,SUBCUTIS, IS DIAGNOSED UNDER MESENTERY

Animal Note: COD, MALIGNANT MESOTHELIOMA

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 140

TRT#: 3

SEX: Male

DAY ON TEST: 441

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870510

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thymus	Trachea	* Urinary Bladder

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 141

TRT#: 3

SEX: Male

DAY ON TEST: 705

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870511

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mesenteric
Mammary Gland	* Nose	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
* Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: [ INFLAMMATION ] TGLs = 4-16			
* Pancreas	Acinus	Hyperplasia	Moderate
	Artery	Inflammation	Chronic Active, Moderate
* Preputial Gland	Duct	Cyst	
Note: [ CYST ] TGLs = 5-10			
* Spleen		Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: [ ADENOMA ] TGLs = 2-10,3-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 142

TRT#: 3

SEX: Male

DAY ON TEST: 644

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870512

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Moderate
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Note: [ HYPERPLASIA ] TGLs = 2-7			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: [ ADENOMA ] TGLs = 1-10			
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 143

TRT#: 3

SEX: Male

DAY ON TEST: 282

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870513

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Testes
* Thymus	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: [ INFLAMMATION ] TGLs = 1-14,2-14			
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Inflammation	Chronic Active, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 144

TRT#: 3

SEX: Male

DAY ON TEST: 382

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870514

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL1-14,SPLENIC ADHESION PRESENT BUT NOT SIGNIFICANT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 145

TRT#: 3

SEX: Male

DAY ON TEST: 537

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870515

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Carcinoma	
Note: [ CARCINOMA ] TGLs = 1-15,1-16,3-10			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 2-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO PREPUTIAL TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 146

TRT#: 3

SEX: Male

DAY ON TEST: 389

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870516

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skeletal Muscle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Tooth	Trachea

OBSERVATIONS

* Brain		Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Hemorrhage	Moderate
Note: [ HEMORRHAGE ] TGLs = 2-2,2-3			
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Mucosa	Inflammation	Chronic Active, Mild
		Metaplasia	Squamous, Mild
* Preputial Gland		Inflammation	Chronic Active, Minimal
Spinal Cord		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
* Testes	Interstit Cell	Hyperplasia	Minimal
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 147

TRT#: 3

SEX: Male

DAY ON TEST: 526

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870517

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Testes	Interstit Cell	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 148

TRT#: 3

SEX: Male

DAY ON TEST: 501

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870518

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 1-10			
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 149

TRT#: 3

SEX: Male

DAY ON TEST: 641

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870519

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Trachea	* Urinary Bladder	

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Vacuolization Cytoplasmic	Minimal
Mammary Gland		Hyperplasia	Cystic, Minimal
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 1-10			
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 150

TRT#: 3

SEX: Male

DAY ON TEST: 691

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870520

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-10, TESTIS WITHIN NORMAL SIZE LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 151

TRT#: 5

SEX: Male

DAY ON TEST: 459

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870911

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
 \* Brain  
 Intestine Large - Colon  
 Intestine Small - Jejunum  
 Lymph Node - Mesenteric  
 \* Prostate  
 \* Spleen  
 \* Thyroid Gland

\* Adrenal Gland - Medulla  
 \* Epididymis  
 Intestine Large - Rectum  
 \* Islets, Pancreatic  
 \* Nose  
 \* Salivary Glands  
 Stomach - Forestomach  
 Tooth

Bone  
 Esophagus  
 Intestine Small - Duodenum  
 \* Lung  
 \* Pancreas  
 Seminal Vesicle  
 Stomach - Glandular  
 Trachea

\* Bone Marrow  
 Intestine Large - Cecum  
 Intestine Small - Ileum  
 Lymph Node - Mandibular  
 \* Parathyroid Gland  
 Skin  
 \* Thymus  
 \* Urinary Bladder

OBSERVATIONS

\* Heart  
 \* Kidney  
 \* Liver

Bile Duct

Degeneration  
 Nephropathy  
 Hepatodiaphragmatic Nodule  
 Hyperplasia  
 Inflammation  
 Vacuolization Cytoplasmic

Chronic, Minimal  
 Chronic, Mild  
 Mild  
 Chronic Active, Minimal  
 Mild

Note: [ HDN ] TGLs = 1-15

Mammary Gland  
 \* Pituitary Gland  
 \* Preputial Gland  
 \* Testes

Pars Distalis  
 Interstit Cell

Hyperplasia  
 Hyperplasia  
 Inflammation  
 Hyperplasia

Cystic, Mild  
 Mild  
 Chronic Active, Mild  
 Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 152

**TRT#:** 5  
**DOSE:** 25 PPM

**SEX:** Male  
**DISP:** Scheduled Sacrifice

**DAY ON TEST:** 185  
**HISTO:** 870912

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 153

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870913

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Seminal Vesicle	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Capsule, Spindle Cell	Hyperplasia	Mild
	Medulla	Hyperplasia	Minimal
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: [ CATARACT ] TGLs = 1-16			
Note: [ ATROPHY ] TGLs = 1-16			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
Note: [ NEPHROPATHY ] TGLs = 5-1			
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Hepatocyte	Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
[ Hyperplasia TGLS = 6-15 ]			
Mammary Gland		Hyperplasia	Cystic, Minimal
* Preputial Gland	Duct	Cyst	
		Hyperplasia	Glandular, Mild
		Inflammation	Chronic Active, Mild
Note: [ CYST ] TGLs = 7-10			
* Prostate		Inflammation	Chronic Active, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 153

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 25 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870913

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Skin	Subcut Tiss	Neurofibroma	
Note: [ NEUROFIBROMA ] TGLs = 2-17			
* Testes	Bilateral, Interstit Cell Seminif Tub	Adenoma Atrophy	Moderate
Note: [ ADENOMA ] TGLs = 3-10			
Note: [ ATROPHY ] TGLs = 4-10			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 154

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870914

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-1 ]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Mild
Note: [ EOSIN FOCUS ] TGLs = 5-15			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: [ FIBROADENOMA ] TGLs = 2-16			
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin		Keratoacanthoma	
Note: [ KERATOACANTHOMA ] TGLs = 1-17			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: [ ADENOMA ] TGLs = 3-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 155

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 184

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870915

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 156

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870916

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Forestomach  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Parathyroid Gland  
Seminal Vesicle  
Stomach - Glandular

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pituitary Gland  
Skin  
\* Thyroid Gland

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Prostate  
\* Spleen  
Trachea

OBSERVATIONS

\* Adrenal Gland  
\* Heart  
\* Kidney  
\* Liver

Medulla

Pheochromocytoma Benign  
Degeneration  
Nephropathy  
Basophilic Focus  
Clear Cell Focus

Chronic, Mild  
Chronic, Marked

Bile Duct

Hyperplasia  
Hyperplasia

Mild

Mammary Gland  
\* Pancreas  
\* Preputial Gland

Artery

Inflammation  
Inflammation

Cystic, Mild  
Chronic Active, Mild  
Chronic Active, Moderate

\* Testes  
Note: ADENOMA TGLs = 1-10

Bilateral, Interstit Cell

Adenoma

\* Thymus

Depletion Lymphoid

Mild

Tooth

Lower, Molar, Peridont Tiss  
Dentine, Incisor

Inflammation  
Necrosis

Suppurative, Chronic, Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 157

TRT#: 5

SEX: Male

DAY ON TEST: 668

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870917

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

MISSING

Mammary Gland

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 4-4			
* Lung	Alveolar Epith	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: HYPERPLASIA TGLs = 5-2			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
* Preputial Gland	Duct	Cyst	
		Inflammation	Chronic Active, Mild
Note: CYST TGLs = 7-10			
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-16,3-16			
Stomach	Forestomach	Ulcer	Moderate
Note: ULCER TGLs = 6-15			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 157	<b>TRT#:</b> 5 <b>DOSE:</b> 25 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 668 <b>HISTO:</b> 870917
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
Note: ADENOMA TGLs = 1-10 Note: HYPERPLASIA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 158

TRT#: 5

SEX: Male

DAY ON TEST: 654

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870918

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Liver	* Lung	Lymph Node - Mandibular	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	* Thyroid Gland	Trachea
* Urinary Bladder			

AUTO PRECLUDES DIAG.

* Islets, Pancreatic	* Pancreas
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OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
Lymph Node	Mesenteric	Inflammation	Chronic Active, Mild
Note: INFLAMMATION TGLs = 6-6			
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
		Liposarcoma	
Note: INFLAMMATION TGLs = 3-16			
Note: LIPOSARC TGLs = 3-17			
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Stomach	Forestomach	Acanthosis	Moderate
	Glandular	Pigmentation	Hemosiderin, Mild
Note: ACANTHOSIS TGLs = 5-15			
Note: PIGMENT TGLs = 4-6			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 158

**TRT#:** 5  
**DOSE:** 25 PPM

**SEX:** Male  
**DISP:** Natural Death

**DAY ON TEST:** 654  
**HISTO:** 870918

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Mild Multifocal, Minimal
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**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL2-4, PALE PIGMENT NOT APPARENT ON MICRO

Animal Note: COD, LIPOSARCOMA

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 159

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870919

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex Bilateral, Medulla	Hyperplasia Pheochromocytoma Benign	Mild
Eye	Retina Lens	Atrophy Cataract	Marked Moderate
Note: ATROPHY	TGLs = 1-16		
Note: CATARACT	TGLs = 1-16		
* Heart		Degeneration	Chronic, Moderate
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-1 ]			
* Liver	Bile Duct	Basophilic Focus Hepatodiaphragmatic Nodule Hyperplasia Leukemia Mononuclear	Mild
Note: HDN	TGLs = 4-15		
* Lung	Mandibular Mediastinal Mesenteric	Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear	
Lymph Node		Hyperplasia	Cystic, Mild
Mammary Gland	Sinus	Foreign Body	Moderate
* Nose	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 159

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870919

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 160

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870920

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Seminal Vesicle	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

MISSING

\* Prostate

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
Bone	Humerus	Osteosclerosis	Minimal
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-16			
Note: ATROPHY TGLs = 1-16			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Artery	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 2-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 3-10			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 160

**TRT#:** 5  
**DOSE:** 25 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 730  
**HISTO:** 870920

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
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PRIMARY CAUSE OF DEATH

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Animal Note: TGL4-10, PREPUTIAL GLAND SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 161

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870921

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Lung	Lymph Node - Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Minimal
* Heart		Degeneration	Chronic, Mild
* Islets, Pancreatic		Carcinoma	
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin	Subcut Tiss	Fibroma	
Note: FIBROMA	TGLs = 1-15		
* Spleen		Fibrosis	Moderate
		Histiocytic Sarcoma	
		Leukemia Mononuclear	
Note: FIBROSIS	TGLs = 3-1		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	Follicle	Cyst	
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 161

**TRT#:** 5  
**DOSE:** 25 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 730  
**HISTO:** 870921

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Dentine, Incisor

Necrosis

Multifocal, Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

Animal Note: BRAIN SECTION HAS ARTIFACT MUSCLE EMBEDDED

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 162

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870922

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

MISSING

Mammary Gland

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Hepatocyte	Degeneration	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
* Preputial Gland		Adenoma	
	Duct	Cyst	
		Inflammation	Chronic Active, Moderate
Note: INFLAMMATION	TGLs = 1-15		
Note: ADENOMA	TGLs = 1-15		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

---

**ANIMAL ID:** 162

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 25 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870922

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 163

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870923

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 164

TRT#: 5

SEX: Male

DAY ON TEST: 663

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870924

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Epididymis
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
* Thyroid Gland	Trachea	* Urinary Bladder	

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
* Brain		Hydrocephalus	Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-1 ]			
* Liver	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Marked
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 1-7			
* Preputial Gland		Inflammation	Chronic Active, Mild
Stomach	Glandular	Necrosis	Mild
	Forestomach	Ulcer	Moderate
Note: NECROSIS TGLs = 5-6,5-15			
Note: ULCER TGLs = 4-6,4-15			
* Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
Note: ATROPHY TGLs = 2-10			
Note: ADENOMA TGLs = 2-10			
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 164

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 663

**DOSE:** 25 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870924

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO NEPHROPATHY

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 165

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870925

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Parathyroid Gland	* Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
	Medulla	Pheochromocytoma Benign	
Note: PHEOCHROM BGN TGLs = 6-7			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 5-17			
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Minimal
Skin		Squamous Cell Papilloma	
Note: SQ CL PAPILOM TGLs = 2-16			
* Spleen		Fibrosis	Mild
Note: FIBROSIS TGLs = 3-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 4-10			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 165

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 731

**DOSE:** 25 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870925

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Zymbal's Gland		Cyst	Multiple
Note: CYST	TGLs = 1-18		

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 166

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870926

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY	TGLs = 3-1		
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Parathyroid Gland		Adenoma	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 1-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-1, SPLEEN APPEARS NORMAL ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 167

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870927

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7-2			
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 5-16			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Minimal
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
Note: FIBROSIS TGLs = 4-15			
[ Fibrosis TGLS = 3-1 ]			
* Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 167	<b>TRT#:</b> 5 <b>DOSE:</b> 25 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 731 <b>HISTO:</b> 870927
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>				
Note: ATROPHY * Thymus * Thyroid Gland	TGLs = 1-10	Interstit Cell	Hyperplasia	Mild
Note: CARCINOMA Tooth	TGLs = 6-7	Follicular Cel	Depletion Lymphoid Carcinoma	Moderate
		Dentine, Incisor Lower, Molar, Peridont Tiss Dentine, Incisor	Dysplasia Inflammation Necrosis	Minimal Suppurative, Chronic, Marked Multifocal, Minimal

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 168

TRT#: 5

SEX: Male

DAY ON TEST: 711

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870928

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
Bone	Humerus	Fibrous Osteodystrophy	Minimal
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 3-1			
* Liver	Subserosa	Congestion	Mild
Note: CONGESTION TGLs = 4-4	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen	Red Pulp	Atrophy	Moderate
* Testes	Interstitial Cell	Adenoma	
Note: HYPERPLASIA TGLs = 2-10	Interstitial Cell	Hyperplasia	Mild
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 168

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 711

**DOSE:** 25 PPM

**DISP:** Natural Death

**HISTO:** 870928

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: TGL1-16,EAR NODULES NOT APPARENT AT TRIM OR ON MICRO

Animal Note: TGL5-15,LYMPH NODE WITHIN NORMAL LIMITS

Animal Note: COD, NEPHROPATHY CHRONIC

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 169

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 184

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870929

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 170

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870930

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mesenteric	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-1 ]			
* Liver	Bile Duct	Basophilic Focus	
		Hyperplasia	Marked
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-1 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 3-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 170

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 25 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870930

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 171

TRT#: 5

SEX: Male

DAY ON TEST: 670

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870931

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
Note: LEUKEMIA MONUC TGLs = 3-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Vacuolization Cytoplasmic	Focal, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL4-7, NO GREEN PIGMENT APPARENT ON SKIN,NCL

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 172

TRT#: 5

SEX: Male

DAY ON TEST: 647

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870932

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

MISSING

Mammary Gland

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Marked
	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: HEPATOCLR ADEN TGLs = 5-4			
Lymph Node	Mesenteric	Leukemia Mononuclear	
* Preputial Gland		Carcinoma	
Note: CARCINOMA TGLs = 1-15			
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-16 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 3-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: UNDECALCIFIED MANDIBLE, AND LOWER INCISOR,

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 172

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 647

**DOSE:** 25 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870932

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: INSUFFICIENT TISSUE

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 173

TRT#: 5

DOSE: 25 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 676

HISTO: 870933

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Moderate
Intestine Large	Colon	Ulcer	Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Vacuolization Cytoplasmic	Mild
Lymph Node	Mandibular	Congestion	Moderate
Note: CONGESTION	TGLs = 4-7		
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Mild
Note: INFLAMMATION	TGLs = 6-17		
* Nose	Sinus	Foreign Body	Marked
	Mucosa	Inflammation	Chronic Active, Marked
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Depletion Lymphoid	Moderate
Note: DEPLET LYMPH	TGLs = 3-15		
Stomach	Glandular	Cyst Epithelial Inclusion	
Note: CYST EPITH INC	TGLs = 5-16		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 1-10		
* Thymus		Depletion Lymphoid	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 173

**TRT#:** 5  
**DOSE:** 25 PPM

**SEX:** Male  
**DISP:** Natural Death

**DAY ON TEST:** 676  
**HISTO:** 870933

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor	Dysplasia	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL2-10, TESTIS SIZE WITHIN NORMAL LIMITS

Animal Note: COD, NASAL INFECTION

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 174

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870934

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
Bone	Epiphysis, Tibia	Cyst	
	Cartilage, Humerus, Joint	Necrosis	Focal, Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 2-17			
* Pituitary Gland	Pars Intermed	Carcinoma	
Note: CARCINOMA TGLs = 6-7			
* Preputial Gland	Duct	Cyst	
Note: CYST TGLs = 7-10			
* Prostate		Dilatation	Moderate
		Inflammation	Chronic Active, Mild
Note: DILATATION TGLs = 3-16			
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 174

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 25 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870934

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes Note: ADENOMA      TGLs = 1-10	Bilateral, Interstit Cell	Adenoma	
* Thymus Tongue Note: HYPERPLASIA      TGLs = 5-15	Mucosa	Depletion Lymphoid Hyperplasia	Marked Squamous, Marked
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL4-10, SEMINAL VESICLES WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 175

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870935

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mesenteric	* Nose	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-1 ]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
Note: EOSIN FOCUS TGLs = 4-4	Bile Duct	Hyperplasia	Mild
* Lung		Alveolar/Bronchiolar Adenoma	
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Artery	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-1			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 176

**TRT#:** 5  
**DOSE:** 25 PPM

**SEX:** Male  
**DISP:** Scheduled Sacrifice

**DAY ON TEST:** 185  
**HISTO:** 870936

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 177

TRT#: 5

SEX: Male

DAY ON TEST: 607

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870937

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	* Heart	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

MISSING

Intestine Large - Cecum

OBSERVATIONS

* Adrenal Gland	Medulla	Leukemia Mononuclear	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC	TGLs = 8-4		
* Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5-2,5-3,6-2,6-3		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 3-17,4-2,7-18,9-15 ]		
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 2-16 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 177	<b>TRT#:</b> 5 <b>DOSE:</b> 25 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 607 <b>HISTO:</b> 870937
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Stomach Note: ACANTHOSIS    TGLs = 10-19	Forestomach	Acanthosis	Moderate
* Testes Note: ATROPHY    TGLs = 1-10	Interstit Cell Seminif Tub	Adenoma Atrophy	Moderate
* Thymus Tooth	Incisor, Pulp	Leukemia Mononuclear Inflammation	Necrotizing, Chronic, Marked

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PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 178

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870938

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex Medulla	Hyperplasia Hyperplasia Degeneration Nephropathy	Mild Minimal Chronic, Moderate Chronic, Marked
* Heart			
* Kidney	[ Nephropathy TGLS = 3-1 ]		
* Liver		Basophilic Focus Clear Cell Focus Mixed Cell Focus	
Note: CLEAR CL FOCUS TGLs = 4-15			
Mammary Gland		Hyperplasia	Cystic, Minimal
* Nose	Sinus Mucosa	Foreign Body Inflammation	Minimal Chronic Active, Minimal
* Pancreas	Acinus Artery	Adenoma Inflammation	Chronic Active, Minimal
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Fibrosis	Moderate
[ Fibrosis TGLS = 2-1 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 1-10 ]			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Dysplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 178

**TRT#:** 5  
**DOSE:** 25 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 731  
**HISTO:** 870938

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Dentine, Incisor

Necrosis

Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 179

**TRT#:** 5  
**DOSE:** 25 PPM

**SEX:** Male  
**DISP:** Scheduled Sacrifice

**DAY ON TEST:** 184  
**HISTO:** 870939

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 180

TRT#: 5

SEX: Male

DAY ON TEST: 584

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870940

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Parathyroid Gland  
Seminal Vesicle  
\* Urinary Bladder

\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Pituitary Gland  
Stomach - Forestomach

Esophagus  
Intestine Small - Duodenum  
\* Nose  
\* Prostate  
\* Thyroid Gland

Intestine Large - Cecum  
Intestine Small - Ileum  
\* Pancreas  
\* Salivary Glands  
Trachea

OBSERVATIONS

\* Adrenal Gland  
Bone  
\* Bone Marrow  
\* Brain  
\* Heart  
\* Kidney

Medulla  
Cartilage, Joint, Tibia  
Femoral

Leukemia Mononuclear  
Degeneration  
Leukemia Mononuclear  
Leukemia Mononuclear  
Degeneration  
Leukemia Mononuclear  
Nephropathy

Minimal  
  
Chronic, Mild  
Chronic, Moderate

Note: LEUKEMIA MONUC TGLs = 5-1

\* Liver

Bile Duct

Hyperplasia  
Leukemia Mononuclear

Moderate

Note: LEUKEMIA MONUC TGLs = 3-4

\* Lung  
Lymph Node

Mandibular  
Mediastinal  
Mesenteric

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear

Cystic, Moderate  
Chronic Active, Mild

Mammary Gland  
\* Preputial Gland

Skin

Subcut Tiss

Hyperplasia  
Inflammation  
Fibroma

Note: FIBROMA TGLs = 1-15,1-16

\* Spleen

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 4-17

Stomach

Glandular

Ulcer

Mild

Note: ULCER TGLs = 6-18

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 180	<b>TRT#:</b> 5 <b>DOSE:</b> 25 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 584 <b>HISTO:</b> 870940
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 181

TRT#: 5

SEX: Male

DAY ON TEST: 710

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870941

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
		Vacuolization Cytoplasmic	Mild
Note: CLEAR CL FOCUS TGLs = 4-4			
Note: HDN TGLs = 3-4			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin	Subcut Tiss	Neurofibrosarcoma	Multiple
Note: NEUROFIBROSARC TGLs = 5-15,5-16,6-17,6-18			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL5-15,5-16,6-17,6-18, IS SKIN TUMOR, NOT

Animal Note: MAMMARY GLAND TUMOR

Animal Note: MORIBUND SAC DUE TO SKIN TUMORS

Animal Note: TGL1-10, RED FOCUS NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 181

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 710

**DOSE:** 25 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870941

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 182

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 184

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870942

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 183

TRT#: 5

SEX: Male

DAY ON TEST: 669

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870943

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
Trachea	* Urinary Bladder		

OBSERVATIONS

* Brain		Granular Cell Tumor Malignant	
Note: GRA CL TUM MAL TGLs = 3-5			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-4, PALE LIVER FOCUS NOT APPARENT ON MICRO

Animal Note: TGL2-4, PALE FOCUS NOT APPARENT ON MICRO

Animal Note: MORIBUND SAC DUE TO BRAIN TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 184

TRT#: 5

SEX: Male

DAY ON TEST: 671

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870944

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Moderate
	Medulla	Pheochromocytoma Benign	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
		Thrombosis	
Note: THROMBUS TGLs = 6-4			
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Marked
		Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC TGLs = 3-4			
Note: HDN TGLs = 4-16			
[ Hyperplasia TGLs = 5-16 ]			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:18  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 184	<b>TRT#:</b> 5 <b>DOSE:</b> 25 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 671 <b>HISTO:</b> 870944
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LEUKEMIA MONUC TGLs = 2-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Leukemia Mononuclear	
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 185

TRT#: 5

SEX: Male

DAY ON TEST: 638

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870945

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Nose	* Parathyroid Gland
* Salivary Glands	Seminal Vesicle	Skin	* Thyroid Gland
Trachea	* Urinary Bladder		

MISSING

\* Thymus

AUTO PRECLUDES DIAG.

\* Islets, Pancreatic

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Compression	
* Heart		Degeneration	Chronic, Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
		Leukemia Mononuclear	
* Liver			
Note: LEUKEMIA MONUC	TGLs = 5-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-6		
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Note: HYPERPLASIA	TGLs = 6-7		
* Preputial Gland		Carcinoma	
Note: CARCINOMA	TGLs = 1-17		
* Prostate		Inflammation	Chronic Active, Mild

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 185

TRT#: 5

SEX: Male

DAY ON TEST: 638

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870945

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen Note: LEUKEMIA MONUC TGLs = 3-15		Leukemia Mononuclear	
Stomach Note: NECROSIS TGLs = 8-16 Note: ULCER TGLs = 7-16	Glandular Forestomach	Necrosis Ulcer	Mild Moderate
* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-10, PIGMENT NOT APPARENT ON MICRO

Animal Note: COD, LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:18

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 186

TRT#: 5

DOSE: 25 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 718

HISTO: 870946

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
Bone	Humerus	Fibrous Osteodystrophy	Moderate
	Mandible	Fibrous Osteodystrophy	Moderate
	Maxilla	Fibrous Osteodystrophy	Moderate
	Thoracic, Vertebra	Fibrous Osteodystrophy	Mild
	Tibia	Fibrous Osteodystrophy	Moderate
* Epididymis	Serosa	Mesothelioma Malignant	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-1 ]			
* Liver	Hepatocyte	Basophilic Focus	
		Degeneration	Cystic, Mild
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery		Mesothelioma Malignant	
Note: MESOTHELIO MAL TGLs = 1-10,1-14,1-16			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Histiocytic Sarcoma	
Note: HISTIO SARC TGLs = 4-15			
Stomach	Glandular	Pigmentation	Hemosiderin, Mild
Note: PIGMENT TGLs = 5-6			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Serosa	Mesothelioma Malignant	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:18

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 186

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 718

**DOSE:** 25 PPM

**DISP:** Natural Death

**HISTO:** 870946

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Note: ADENOMA      TGLs = 3-10

\* Thymus

Depletion Lymphoid

Marked

Tooth

Lower, Molar, Peridont Tiss

Inflammation

Suppurative, Chronic, Moderate

---

**PRIMARY CAUSE OF DEATH**

-

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Animal Note: COD, NEPHROPATHY AND MALIGNANT MESOTHELIOMA

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 187

TRT#: 5

SEX: Male

DAY ON TEST: 459

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870947

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: THE FEMUR HEAD HAS A SMALL FOCAL AREA OF

Animal Note: DYSPLASIA ON SLIDE 12

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 188

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870948

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Bilateral, Cortex Medulla Medulla	Degeneration Hyperplasia Pheochromocytoma Benign	Cystic, Focal, Mild Mild
* Heart		Degeneration	Chronic, Moderate
Intestine Small Note: [ INFLAMMATION ] TGLs = 3-15	Jejunum	Inflammation	Granulomatous, Chronic Active, Marked
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus Clear Cell Focus	
Lymph Node Note: ANGIECTASIS TGLs = 1-16	Hepatocyte Mesenteric	Degeneration Angiectasis	Cystic, Mild Marked
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Testes Note: ADENOMA TGLs = 2-10	Bilateral, Interstit Cell	Adenoma	
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 189

TRT#: 5

SEX: Male

DAY ON TEST: 691

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870949

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Stomach - Forestomach	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear Degeneration	Chronic, Moderate
* Heart		Leukemia Mononuclear Nephropathy	Chronic, Moderate
* Kidney		Hyperplasia	Mild
* Liver	Bile Duct	Leukemia Mononuclear Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 7-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 8-2			
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-16,5-17			
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
Skin		Cyst Epithelial Inclusion	
		Papilloma	
		Ulcer	Moderate
Note: PAPILLOMA TGLs = 1-15			
Note: ULCER TGLs = 3-19			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

**ANIMAL ID:** 189

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 691

**DOSE:** 25 PPM

**DISP:** Natural Death

**HISTO:** 870949

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: CYST EPITH INC	TGLs = 2-18		
* Spleen			Leukemia Mononuclear
Note: LEUKEMIA MONUC	TGLs = 4-1		
Stomach		Glandular	Pigmentation
Note: PIGMENT	TGLs = 9-6		Hemosiderin, Mild
* Testes		Bilateral, Interstit Cell	Adenoma
Note: ADENOMA	TGLs = 6-10		
* Thymus			Depletion Lymphoid
Tooth		Dentine, Incisor	Necrosis
			Moderate
			Multifocal, Minimal

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL5-16,5-17, IS MESENTERY FAT, NOT ADRENAL LESION

Animal Note: COD, LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 190

TRT#: 5

DOSE: 25 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 533

HISTO: 870950

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

INSUFFICIENT TISSUE

\* Pituitary Gland

OBSERVATIONS

* Adrenal Gland Note: PHEOCHROM BGN TGLs = 2-7	Medulla	Pheochromocytoma Benign	
* Brain		Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Spleen Note: LEUKEMIA MONUC TGLs = 1-15		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 190

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 533

**DOSE:** 25 PPM

**DISP:** Natural Death

**HISTO:** 870950

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 191

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870951

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	* Nose	* Parathyroid Gland
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Marked
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-4			
Note: HYPERPLASIA TGLs = 8-4,8-16			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6-7,7-6			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	
Note: CYST TGLs = 1-7			
* Preputial Gland		Adenoma	
		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	

[ Fibrosis TGLS = 4-15 ]

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 191	<b>TRT#:</b> 5 <b>DOSE:</b> 25 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 729 <b>HISTO:</b> 870951
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 4-1 ]

* Testes Note: ADENOMA TGLs = 2-10,3-10	Bilateral, Interstit Cell	Adenoma	
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 192

TRT#: 5

SEX: Male

DAY ON TEST: 459

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870952

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder			

**OBSERVATIONS**

Ear	Pinna	Fibroma	
Note: FIBROMA	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 193

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870953

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
Bone	Tibia	Thrombosis	Chronic, Focal, Moderate
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-1 ]			
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Adenoma	
Note: ADENOMA TGLs = 1-16			
* Spleen		Hematopoietic Cell Proliferation	Moderate
Note: HEMA CELL PROL TGLs = 3-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: METAPLASIA

Animal Note: THE TIBIA THROMBUS HAS FIBROUS AND OSSEOUS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 194

TRT#: 5

SEX: Male

DAY ON TEST: 706

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870954

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Liver	* Lung	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
Eye	Lens	Cataract	Mild
	Cornea	Hyperplasia	Squamous, Mild
Note: HYPERPLASIA TGLs = 9-15			
Note: CATARACT TGLs = 7-15			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 1-1 ]			
Lymph Node	Mandibular	Histiocytic Sarcoma	Metastatic (Spleen)
	Mediastinal	Histiocytic Sarcoma	Metastatic (Spleen)
	Mesenteric	Histiocytic Sarcoma	Metastatic (Spleen)
Note: HISTIO SARC TGLs = 2-2,6-6			
Mammary Gland		Hyperplasia	Cystic, Marked
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 3-7			
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Histiocytic Sarcoma	
Note: HISTIO SARC TGLs = 5-16			
* Testes	Interstit Cell	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 194

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 706

**DOSE:** 25 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870954

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Tooth

Dentine, Incisor

Necrosis

Focal, Minimal

Zymbal's Gland

Carcinoma

Note: CARCINOMA TGLs = 4-17,4-18

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: MORIBUND SAC DUE TO ZYMBALS GLAND TUMOR

Animal Note: TGL8-15, EYE SIZE WITHIN NORMAL LIMITS ON MICRO

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 195

TRT#: 5

SEX: Male

DAY ON TEST: 459

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870955

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Tissue NOS	Tooth
Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

Note: ADENOMA TGLs = 1-10

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 196

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870956

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Bone	Humerus	Fibrous Osteodystrophy	Moderate
	Maxilla	Fibrous Osteodystrophy	Moderate
	Thoracic, Vertebra	Fibrous Osteodystrophy	Minimal
Eye	Tibia	Fibrous Osteodystrophy	Moderate
	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-15			
Note: CATARACT TGLs = 1-15			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-17 ]			
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-7			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Mild
Note: ADENOMA TGLs = 6-16			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 196

**TRT#:** 5  
**DOSE:** 25 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 732  
**HISTO:** 870956

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Preputial Gland		Inflammation	Chronic Active, Minimal
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 4-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 197

TRT#: 5

SEX: Male

DAY ON TEST: 422

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870957

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Spleen		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 1-14 ]	
* Testes	Interstit Cell	Hyperplasia	Mild
* Thymus		Leukemia Mononuclear	
Tooth	Dentine, Incisor	Dysplasia	Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: CAUSE OF DEATH IS LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 198

TRT#: 5

SEX: Male

DAY ON TEST: 697

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870958

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	* Islets, Pancreatic	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Stomach - Glandular	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
		Thrombosis	
Intestine Small	Jejunum, Peyers Patch	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 11-18		
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 8-4	Vacuolization Cytoplasmic	Mild
Note: HYPERPLASIA	TGLs = 9-16		
* Lung		Leukemia Mononuclear	
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-5,2-7,6-2,7-17,10-6		
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 198	<b>TRT#:</b> 5 <b>DOSE:</b> 25 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 697 <b>HISTO:</b> 870958
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Skin Note: CYST EPITH INC TGLs = 1-19		Cyst Epithelial Inclusion	
* Spleen Note: LEUKEMIA MONUC TGLs = 4-15		Leukemia Mononuclear	
Stomach Note: ULCER TGLs = 12-6	Forestomach	Ulcer	Moderate
* Testes Note: ADENOMA TGLs = 5-10	Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
* Thymus		Leukemia Mononuclear	

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**PRIMARY CAUSE OF DEATH** -  
Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 199

TRT#: 5

SEX: Male

DAY ON TEST: 459

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870959

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

Note: ADENOMA TGLs = 1-10

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 200

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870960

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 201

TRT#: 5

SEX: Male

DAY ON TEST: 460

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870961

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
Tooth	Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Interstitial Cell	Hyperplasia	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 202

TRT#: 5

SEX: Male

DAY ON TEST: 732

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870962

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
Bone	Humerus	Fibrous Osteodystrophy	Minimal
	Maxilla	Fibrous Osteodystrophy	Minimal
	Thoracic, Vertebra	Fibrous Osteodystrophy	Minimal
	Tibia	Fibrous Osteodystrophy	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-15		
Note: CATARACT	TGLs = 1-15		
* Heart		Degeneration	Chronic, Moderate
* Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Marked
	[ Cyst TGLS = 4-1 ]		
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 202

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 732

**DOSE:** 25 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870962

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LEUKEMIA MONUC TGLs = 3-1

\* Testes

Bilateral, Interstit Cell

Adenoma

Note: ADENOMA TGLs = 2-10

\* Thymus

Depletion Lymphoid

Moderate

\* Thyroid Gland

C Cell

Hyperplasia

Mild

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 203

TRT#: 5

SEX: Male

DAY ON TEST: 460

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870963

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder			

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney	Renal Tubule	Adenoma	
		Nephropathy	Chronic, Mild
Note: ADENOMA	TGLs = 1-1		
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Adenoma	
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 2-10		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 204

TRT#: 5

SEX: Male

DAY ON TEST: 424

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870964

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	Tooth
Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone Marrow		Carcinoma	Metastatic (Thyroid Gland)
Note: TIBIA IS THE BONE SITE, SLIDE 12			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
* Lung		Carcinoma	Metastatic (Thyroid Gland)
Lymph Node	Axillary	Carcinoma	Metastatic (Thyroid Gland)
	Mandibular	Carcinoma	Metastatic (Thyroid Gland)
	Mediastinal	Carcinoma	Metastatic (Thyroid Gland)
Note: CARCINOMA	TGLs = 1-16,2-14,3-15,6-2		
Mammary Gland		Hyperplasia	Cystic, Moderate
* Testes	Interstitial Cell	Hyperplasia	Mild
* Thyroid Gland	Bilateral, C Cell	Carcinoma	
Note: CARCINOMA	TGLs = 5-7,4-17		

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SACRIFICE DUE TO THYROID C-CELL TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 205

TRT#: 5

SEX: Male

DAY ON TEST: 717

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870965

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Parathyroid Gland	* Salivary Glands
Seminal Vesicle	Skin	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Marked
	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Note: HYPERPLASIA TGLs = 5-7			
Bone	Humerus	Fibrous Osteodystrophy	Mild
	Maxilla	Fibrous Osteodystrophy	Minimal
	Tibia	Fibrous Osteodystrophy	Mild
* Bone Marrow	Femoral	Atrophy	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 4-1			
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: CLEAR CL FOCUS TGLs = 7-16			
* Lung	Pleura	Inflammation	Chronic Active, Moderate
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1-2			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Minimal
	Mucosa	Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Atrophy	Minimal

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 205

TRT#: 5

SEX: Male

DAY ON TEST: 717

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870965

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-15		
Note: FIBROSIS	TGLs = 3-15		
Stomach	Forestomach	Ulcer	Moderate
	Glandular	Ulcer	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 6-10		
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Adenoma	
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Incisor, Odontoblast	Degeneration	Minimal
	Dentine, Incisor	Dysplasia	Mild
	Dentine, Incisor	Necrosis	Multifocal, Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: ADRENAL STRESS

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR, AND

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 206

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870966

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Clear Cell Focus	
		Hyperplasia	Moderate
		Mixed Cell Focus	
Note: [ MIXED CL FOCUS ] TGLs = 3-4			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Congestion	Moderate
	Pars Distalis	Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 2-7			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 207

TRT#: 5

SEX: Male

DAY ON TEST: 460

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870967

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thymus	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder		

**OBSERVATIONS**

* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
		Vacuolization Cytoplasmic	Mild
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 208

TRT#: 5

SEX: Male

DAY ON TEST: 459

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870968

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Prostate  
Stomach - Forestomach  
Tooth

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Pancreas  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Seminal Vesicle  
\* Thymus  
\* Urinary Bladder

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Skin  
\* Thyroid Gland

OBSERVATIONS

\* Adrenal Gland  
\* Heart  
\* Kidney  
\* Liver  
  
Mammary Gland  
\* Preputial Gland  
\* Spleen  
\* Testes

Medulla  
  
Bile Duct  
  
  
  
Bilateral, Interstit Cell  
Interstit Cell

Pheochromocytoma Benign  
Degeneration  
Nephropathy  
Hyperplasia  
Inflammation  
Vacuolization Cytoplasmic  
Hyperplasia  
Inflammation  
Fibrosis  
Adenoma  
Hyperplasia

Chronic, Mild  
Chronic, Moderate  
Mild  
Chronic Active, Mild  
Mild  
Cystic, Mild  
Chronic Active, Mild  
Minimal  
  
Mild

Note: ADENOMA TGLs = 1-10

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 209

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870969

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 210

TRT#: 5

SEX: Male

DAY ON TEST: 623

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870970

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
Seminal Vesicle  
Trachea

\* Adrenal Gland - Medulla  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Spleen  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Parathyroid Gland  
Stomach - Glandular

\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Salivary Glands  
\* Thyroid Gland

MISSING

Lymph Node - Mesenteric

OBSERVATIONS

Bone	Humerus	Osteoporosis	Mild
	Tibia	Osteoporosis	Mild
* Brain		Compression	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
Note: HDN	TGLs = 3-15		
Mammary Gland		Hyperplasia	Cystic, Minimal
* Nose	Mucosa	Inflammation	Acute, Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 1-7		
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Prostate		Inflammation	Chronic Active, Mild
Skin	Subcut Tiss	Inflammation	Chronic Active, Mild
Note: INFLAMMATION	TGLs = 2-16		
Stomach	Forestomach	Acanthosis	Moderate
* Testes	Interstit Cell	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 210

**TRT#:** 5  
**DOSE:** 25 PPM

**SEX:** Male  
**DISP:** Natural Death

**DAY ON TEST:** 623  
**HISTO:** 870970

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

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Animal Note: COD, PITUITARY TUMOR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 211

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870971

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
Bone	Epiphysis, Humerus	Cyst	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
[ Nephropathy TGLS = 5-1 ]			
* Liver		Clear Cell Focus	
	Hepatocyte	Cytomegaly	Focal, Mild
	Hepatocyte	Degeneration	Cystic, Mild
Lymph Node	Mandibular	Angiectasis	Moderate
Note: ANGIECTASIS TGLs = 6-7			
Mammary Gland		Hyperplasia	Cystic, Minimal
* Preputial Gland		Carcinoma	
		Inflammation	Chronic Active, Moderate
Note: CARCINOMA TGLs = 1-16			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
Tongue		Squamous Cell Papilloma	
Note: SQ CL PAPILOM TGLs = 4-15			
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 211

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** 25 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870971

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: HUMERUS CYST FILLED WITH LOOSE FIBROUS TISSUE

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 212

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870972

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 1-15			
* Nose	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 213

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 184

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870973

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 214

TRT#: 5

SEX: Male

DAY ON TEST: 673

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870974

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Prostate  
\* Spleen

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
\* Salivary Glands  
\* Thyroid Gland

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Pancreas  
Seminal Vesicle  
Trachea

\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Parathyroid Gland  
Skin  
\* Urinary Bladder

MISSING

\* Thymus

OBSERVATIONS

\* Adrenal Gland  
Note: PHEOCHROM BGN TGLs = 2-7,5-7  
Bone  
\* Heart  
\* Kidney  
\* Liver  
Lymph Node  
Note: ANGIECTASIS TGLs = 6-7  
Mammary Gland  
\* Nose  
\* Pituitary Gland  
Note: ADENOMA TGLs = 7-7  
\* Preputial Gland  
Note: ADENOMA TGLs = 10-10  
Stomach  
Note: NECROSIS TGLs = 8-6  
\* Testes  
Note: ADENOMA TGLs = 9-10

Bilateral, Medulla  
Epiphysis, Tibia  
Bile Duct  
Mandibular  
Sinus  
Mucosa  
Pars Distalis  
Glandular  
Forestomach  
Bilateral, Interstit Cell

Pheochromocytoma Benign  
Cyst  
Degeneration  
Nephropathy  
Hyperplasia  
Vacuolization Cytoplasmic  
Angiectasis  
Hyperplasia  
Foreign Body  
Inflammation  
Adenoma  
Adenoma  
Necrosis  
Ulcer  
Adenoma

Multifocal  
Chronic, Moderate  
Chronic, Marked  
Moderate  
Moderate  
Mild  
Cystic, Moderate  
Marked  
Chronic Active, Mild  
Mild  
Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 214

**TRT#:** 5  
**DOSE:** 25 PPM

**SEX:** Male  
**DISP:** Natural Death

**DAY ON TEST:** 673  
**HISTO:** 870974

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor	Dysplasia	Minimal
PRIMARY CAUSE OF DEATH		-	

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Animal Note: COD, NEPHROPATHY

Animal Note: TGL3-6, CECUM WITHIN NORMAL LIMITS ON MICRO

Animal Note: TGL1-1, SPLEEN WITHIN NORMAL LIMITS

Animal Note: TGL4-6, MESENTERIC LYMPH NODE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 215

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870975

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Lung	Alveolar Epith	Hyperplasia	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 1-15			
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland	Duct	Cyst	
		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 216

TRT#: 5

SEX: Male

DAY ON TEST: 699

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870976

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
 Esophagus  
 Intestine Small - Duodenum  
 \* Lung  
 \* Parathyroid Gland  
 \* Urinary Bladder

\* Bone Marrow  
 Intestine Large - Cecum  
 Intestine Small - Ileum  
 Lymph Node - Mesenteric  
 Seminal Vesicle

\* Brain  
 Intestine Large - Colon  
 Intestine Small - Jejunum  
 \* Nose  
 \* Spleen

\* Epididymis  
 Intestine Large - Rectum  
 \* Islets, Pancreatic  
 \* Pancreas  
 Trachea

MISSING

Lymph Node - Mandibular

\* Salivary Glands

OBSERVATIONS

\* Adrenal Gland  
Bone

Medulla  
Humerus  
Maxilla

Hyperplasia  
Fibrous Osteodystrophy  
Fibrous Osteodystrophy  
Fibrous Osteodystrophy

Minimal  
Minimal  
Minimal  
Minimal  
Moderate  
Chronic Active, Moderate

Eye

Lens  
Cornea

Cataract  
Inflammation

Note: CATARACT TGLs = 1-17  
Note: INFLAMMATION TGLs = 1-17

\* Heart  
\* Kidney

Degeneration  
Nephropathy

Chronic, Moderate  
Chronic, Marked

Note: NEPHROPATHY TGLs = 4-1

\* Liver

Hepatocyte

Degeneration  
Vacuolization Cytoplasmic  
Hyperplasia

Cystic, Mild  
Mild  
Cystic, Moderate

Mammary Gland  
\* Pituitary Gland

Pars Distalis  
Pars Intermed

Cyst  
Cyst

\* Preputial Gland  
\* Prostate

Inflammation  
Inflammation

Chronic Active, Mild  
Chronic Active, Minimal

Skin

Subcut Tiss

Neurofibrosarcoma

Note: NEUROFIBROSARC TGLs = 2-16

Stomach

Forestomach

Ulcer

Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 216

TRT#: 5

SEX: Male

DAY ON TEST: 699

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870976

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ULCER	TGLs = 5-15,6-6,6-15	Glandular	Ulcer	Mild
* Testes		Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 3-10			
* Thymus			Depletion Lymphoid	Moderate
* Thyroid Gland		Bilateral, C Cell	Adenoma	
Tooth		Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO SKIN TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 217

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870977

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Parathyroid Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla Cortex	Pheochromocytoma Benign Vacuolization Cytoplasmic Compression Hydrocephalus	Focal, Mild  Mild
* Brain		Degeneration	Chronic, Moderate
* Heart	Atrium	Dilatation	Moderate
Note: DILATATION	TGLs = 2-15		
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear Vacuolization Cytoplasmic	Moderate Mild
* Lung		Leukemia Mononuclear Hyperplasia	Cystic, Moderate
Mammary Gland			
Note: HYPERPLASIA	TGLs = 3-16		
* Nose	Sinus Mucosa	Foreign Body Inflammation	Moderate Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 1-7		
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
Stomach	Forestomach	Ulcer	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 217	<b>TRT#:</b> 5 <b>DOSE:</b> 25 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 727 <b>HISTO:</b> 870977
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Interstit Cell	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

Animal Note: COD, PITUITARY TUMOR AND LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 218

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870978

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
 \* Epididymis  
 Intestine Large - Rectum  
 \* Islets, Pancreatic  
 \* Nose  
 \* Salivary Glands  
 Stomach - Forestomach  
 \* Urinary Bladder

Bone  
 Esophagus  
 Intestine Small - Duodenum  
 \* Lung  
 \* Pancreas  
 Seminal Vesicle  
 Stomach - Glandular

\* Bone Marrow  
 Intestine Large - Cecum  
 Intestine Small - Ileum  
 Lymph Node - Mandibular  
 \* Parathyroid Gland  
 Skin  
 \* Thyroid Gland

\* Brain  
 Intestine Large - Colon  
 Intestine Small - Jejunum  
 Lymph Node - Mesenteric  
 \* Prostate  
 \* Spleen  
 Trachea

OBSERVATIONS

\* Adrenal Gland  
 \* Heart  
 \* Kidney  
 \* Liver

Cortex

Hyperplasia  
 Degeneration  
 Nephropathy  
 Basophilic Focus  
 Clear Cell Focus  
 Vacuolization Cytoplasmic

Moderate  
 Chronic, Moderate  
 Chronic, Moderate

Mammary Gland  
 \* Pituitary Gland  
 \* Preputial Gland

Pars Distalis

Hyperplasia  
 Inflammation

Mild  
 Cystic, Minimal  
 Mild  
 Chronic Active, Minimal

\* Testes  
 Note: ADENOMA TGLs = 1-10

Bilateral, Interstit Cell

Adenoma

\* Thymus

Depletion Lymphoid

Mild

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-4, LIVER FOCUS NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 219

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870979

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Parathyroid Gland	* Salivary Glands
Seminal Vesicle	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Bone	Tibia	Osteosclerosis	Mild
* Heart		Degeneration	Chronic, Moderate
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 7-1 ]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Chronic Active, Mild
		Mixed Cell Focus	
Note: [ MIXED CL FOCUS ] TGLs = 8-15			
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Moderate
	Artery	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Prostate		Inflammation	Chronic Active, Minimal
Skin	Sebaceous GI	Cyst	
		Hyperkeratosis	Moderate
		Squamous Cell Papilloma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

**ANIMAL ID:** 219

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 25 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870979

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: CYST TGLs = 1-16

Note: SQ CL PAPILLOM TGLs = 3-16

Note: HYPERKERATOSIS TGLs = 2-17

\* Testes Bilateral, Interstit Cell

Adenoma

Note: ADENOMA TGLs = 5-10

\* Thymus Depletion Lymphoid

Moderate

Tooth Lower, Molar, Peridont Tiss

Inflammation

Suppurative, Chronic, Moderate

Dentine, Incisor

Necrosis

Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL4-5,MANDIBULAR LYMPH NODE WITHIN NORMAL LIMITS

Animal Note: ON MICRO

Animal Note: TGL6-10,SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 220

TRT#: 5

SEX: Male

DAY ON TEST: 634

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 870980

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 8-4			
Intestine Large	Colon, Serosa	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 5-17			
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 6-1 ]			
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 7-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-16 ]			
* Testes	Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 220	<b>TRT#:</b> 5 <b>DOSE:</b> 25 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 634 <b>HISTO:</b> 870980
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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	Seminif Tub	Atrophy	Marked
	Interstit Cell	Hyperplasia	Mild
Note: ATROPHY	TGLs = 3-10		
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Moderate
Tissue NOS		Chordoma	
Note: CHORDOMA	TGLs = 9-15		
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

Animal Note: TGL4-18, DILATATION OF BLADDER DUE TO URINE

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 221

**TRT#:** 7  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Scheduled Sacrifice

**DAY ON TEST:** 185  
**HISTO:** 870771

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 222

TRT#: 7

SEX: Male

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870772

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 223

TRT#: 7

SEX: Male

DAY ON TEST: 715

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870773

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Liver	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

Bone	Humerus	Fibrous Osteodystrophy	Marked
	Mandible	Fibrous Osteodystrophy	Moderate
	Maxilla	Fibrous Osteodystrophy	Moderate
	Thoracic, Vertebra	Fibrous Osteodystrophy	Moderate
	Tibia	Fibrous Osteodystrophy	Marked
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY	TGLs = 2-1		
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Parathyroid Gland		Hyperplasia	Moderate
* Preputial Gland	Duct	Cyst	
		Inflammation	Chronic Active, Moderate
* Spleen		Depletion Lymphoid	Moderate
Stomach	Glandular	Mineralization	Marked
* Testes	Bilateral, Interstit Cell	Adenoma	
* Thymus		Depletion Lymphoid	Marked
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 223

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 715

**DOSE:** 100 PPM

**DISP:** Natural Death

**HISTO:** 870773

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: COD, NEPHROPATHY, CHRONIC

Animal Note: TGL1-15, EXTRUDED PENIS WITHIN NORMAL LIMITS

Animal Note: THERE IS A TERMINAL INTUSSUSCEPTION OF THE

Animal Note: JEJUNUM

---

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 224

TRT#: 7

SEX: Male

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870774

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Prostate  
Stomach - Forestomach  
Tooth

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Pancreas  
Seminal Vesicle  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver  
  
Mammary Gland  
\* Pituitary Gland  
\* Preputial Gland  
Skin  
Note: KERATOACANTHMA TGLs = 1-15  
\* Testes  
Note: ADENOMA TGLs = 2-10

Bile Duct  
  
  
  
Pars Distalis  
  
Interstit Cell  
Interstit Cell

Degeneration  
Nephropathy  
Hyperplasia  
Inflammation  
Vacuolization Cytoplasmic  
Hyperplasia  
Cyst  
Inflammation  
Keratoacanthoma  
  
Adenoma  
Hyperplasia

Chronic, Mild  
Chronic, Mild  
Mild  
Chronic Active, Minimal  
Mild  
Cystic, Mild  
  
Chronic Active, Mild  
  
  
  
Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 225

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870775

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Lung
* Nose	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Leukemia Mononuclear	
Bone	Thoracic, Vertebra	Fibrous Osteodystrophy	Minimal
	Tibia	Osteosclerosis	Minimal
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-15			
Note: ATROPHY TGLs = 1-15			
* Heart		Degeneration	Chronic, Moderate
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Chronic, Marked
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Moderate
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4-6			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Adenoma	
Note: ADENOMA TGLs = 2-16			
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 225

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870775

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Note: ADENOMA      TGLs = 3-10

\* Thymus

Depletion Lymphoid

Moderate

Tooth

Ameloblast, Incisor

Degeneration

Marked

Dentine, Incisor

Necrosis

Multifocal, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 226

TRT#: 7

SEX: Male

DAY ON TEST: 681

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870776

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Degeneration	Chronic, Moderate
* Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Moderate
[ Nephropathy TGLS = 4-17 ]			
* Liver	Bile Duct	Hyperplasia	Moderate
Mammary Gland		Hyperplasia	Cystic, Minimal
Oral Mucosa	Gingival	Squamous Cell Carcinoma	
Note: [ SQUAM CEL CARC ] TGLs = 1-15,3-8			
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Intermed	Cyst	
* Preputial Gland		Inflammation	Chronic Active, Mild
Stomach	Glandular	Erosion	Mild
Note: EROSION TGLs = 5-6,5-16			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO GINGIVA TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 227

TRT#: 7

SEX: Male

DAY ON TEST: 591

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870777

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
* Thyroid Gland	Trachea	* Urinary Bladder	

MISSING

Stomach - Glandular

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Moderate
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

Animal Note: TGL3-16,NCL, NO LESION BEYOND LEUKEMIA

Animal Note: TGL4-17, AUTOLYTIC CHANGES

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 228

TRT#: 7

SEX: Male

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870778

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Seminal Vesicle  
Stomach - Glandular  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Parathyroid Gland  
Skin  
\* Thymus

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Prostate  
\* Spleen  
Tooth

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Salivary Glands  
Stomach - Forestomach  
Trachea

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver  
  
Mammary Gland  
\* Nose  
\* Pancreas  
\* Pituitary Gland  
\* Preputial Gland  
\* Testes  
\* Thyroid Gland

Bile Duct  
  
  
  
Acinus  
Pars Distalis  
  
Interstit Cell  
C Cell

Degeneration  
Nephropathy  
Hyperplasia  
Vacuolization Cytoplasmic  
Hyperplasia  
Inflammation  
Atrophy  
Hyperplasia  
Inflammation  
Hyperplasia  
Hyperplasia

Chronic, Mild  
Chronic, Mild  
Mild  
Moderate  
Cystic, Mild  
Chronic Active, Minimal  
Mild  
Minimal  
Chronic Active, Mild  
Mild  
Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 229

TRT#: 7

SEX: Male

DAY ON TEST: 693

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870779

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
Bone	Humerus	Fibrous Osteodystrophy	Minimal
	Tibia	Fibrous Osteodystrophy	Minimal
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
[ Atrophy TGLS = 1-15 ]			
[ Cataract TGLS = 1-15 ]			
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
Note: LEUKEMIA MONUC TGLs = 7-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6-17,8-2,9-6			
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Artery	Thrombosis	
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Note: HYPERPLASIA TGLs = 2-7			

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 229

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 693

**DOSE:** 100 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870779

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen Note: LEUKEMIA MONUC TGLs = 3-16		Leukemia Mononuclear	
Stomach Note: PIGMENT TGLs = 10-6	Glandular Glandular	Necrosis Pigmentation	Mild Hemosiderin, Mild
* Testes Note: ADENOMA TGLs = 5-10,11-10 Note: ATROPHY TGLs = 4-10	Bilateral, Interstit Cell Seminif Tub	Adenoma Atrophy	Mild
* Thymus Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Depletion Lymphoid Inflammation Necrosis	Moderate Suppurative, Chronic, Mild Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 230

TRT#: 7

SEX: Male

DAY ON TEST: 668

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870780

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mesenteric	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Leukemia Mononuclear	
Bone	Humerus	Osteosclerosis	Marked
* Heart		Degeneration	Chronic, Mild
		Thrombosis	
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC	TGLs = 4-4,4-16,10-16		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 7-6,11-18		
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin	Subcut Tiss	Fibroma	
Note: FIBROMA	TGLs = 1-19		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 230

TRT#: 7

SEX: Male

DAY ON TEST: 668

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870780

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Leukemia Mononuclear Necrosis	Moderate
[ Leukemia Mononuclear TGLS = 3-1,3-15,5-1 ]			
[ Necrosis TGLS = 6-15 ]			
Stomach	Forestomach Glandular	Ulcer Ulcer	Moderate Moderate
Note: ULCER	TGLs = 9-17		
Note: ULCER	TGLs = 8-17		
* Testes	Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA AND SKIN MASS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 231

TRT#: 7

SEX: Male

DAY ON TEST: 619

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870781

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

MISSING

Mammary Gland

OBSERVATIONS

* Adrenal Gland Note: PHEOCHROM BGN TGLs = 4-7	Bilateral, Medulla	Pheochromocytoma Benign	
Bone	Humerus	Fibrous Osteodystrophy	Minimal
	Maxilla	Fibrous Osteodystrophy	Minimal
	Thoracic, Vertebra	Fibrous Osteodystrophy	Minimal
	Tibia	Fibrous Osteodystrophy	Minimal
* Heart  Note: DEGEN TGLs = 2-4		Degeneration	Chronic, Moderate
		Thrombosis	
* Kidney Note: NEPHROPATHY TGLs = 3-1		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Mild
* Preputial Gland Note: INFLAMMATION TGLs = 1-10		Inflammation	Chronic Active, Marked
Stomach	Forestomach	Acanthosis	Moderate
	Forestomach, Submucosa	Ectopic Tissue	
	[ Ectopic Tissue TGLS = 5-6 ]		
* Testes Note: ADENOMA TGLs = 7-10	Interstit Cell	Adenoma	
* Thymus		Depletion Lymphoid	Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 231

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 619

**DOSE:** 100 PPM

**DISP:** Natural Death

**HISTO:** 870781

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Tooth

Dentine, Incisor

Dysplasia

Mild

Dentine, Incisor

Necrosis

Multifocal, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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Animal Note: COD, NEPHROPATHY CHRONIC

Animal Note: TGL6-10, SEMINAL VESICLES WITHIN NORMAL LIMITS

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 232

TRT#: 7

SEX: Male

DAY ON TEST: 715

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870782

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Liver	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea			

MISSING

\* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Lung	Mediastinum	Histiocytic Sarcoma	Metastatic (Mesentery)
	Alveolar Epith	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery		Histiocytic Sarcoma	
Note: HISTIO SARC	TGLs = 3-15,5-17,5-18		
* Pancreas	Acinus	Atrophy	Mild
		Histiocytic Sarcoma	Metastatic (Mesentery)
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Skeletal Muscle	Diaphragm	Histiocytic Sarcoma	Metastatic (Mesentery)
Note: [ HISTIO SARC ]	TGLs = 4-19		
Skin		Hyperkeratosis	Marked
Note: HYPERKERATOSIS	TGLs = 6-20		
* Spleen		Fibrosarcoma	
Note: FIBROSARC	TGLs = 2-16		
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 232

**TRT#:** 7  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Natural Death

**DAY ON TEST:** 715  
**HISTO:** 870782

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA      TGLs = 1-10

\* Thymus

Tooth

Lower, Molar, Peridont Tiss  
Dentine, Incisor

Depletion Lymphoid  
Inflammation  
Necrosis

Moderate  
Suppurative, Chronic, Minimal  
Multifocal, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

Animal Note: COD, MESENTERY MASSES

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 233

TRT#: 7

SEX: Male

DAY ON TEST: 382

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870783

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Liver	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Testes	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder			

MISSING

\* Preputial Gland

OBSERVATIONS

* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Mucosa	Inflammation	Chronic Active, Moderate
* Thymus		Depletion Lymphoid	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL1-10, TESTIS WITHIN NORMAL LIMITS ON MICRO

Animal Note: CAUSE OF DEATH UNDETERMINED

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 234

TRT#: 7

SEX: Male

DAY ON TEST: 648

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870784

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Parathyroid Gland  
\* Spleen  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Prostate  
Stomach - Forestomach

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Nose  
\* Salivary Glands  
Stomach - Glandular

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Pancreas  
Seminal Vesicle  
Trachea

OBSERVATIONS

Bone  
Eye  
[ Atrophy TGLS = 1-16 ]  
[ Cataract TGLS = 1-16 ]

Cartilage, Humerus, Joint  
Retina  
Lens

Degeneration  
Atrophy  
Cataract

Mild  
Marked  
Mild

\* Heart  
\* Kidney  
\* Liver  
[ Fibrosarcoma TGLS = 7-15 ]

Serosa

Degeneration  
Nephropathy  
Fibrosarcoma  
Fibrosis  
Inflammation

Chronic, Moderate  
Chronic, Moderate  
Metastatic (Skin)  
Mild  
Chronic Active, Mild

Lymph Node  
Note: INFLAMMATION TGLs = 8-7,9-6

Mandibular  
Mesenteric

Inflammation  
Inflammation

Chronic Active, Moderate  
Chronic Active, Moderate

Mammary Gland  
\* Pituitary Gland  
Note: ADENOMA TGLs = 3-7

Pars Distalis

Hyperplasia  
Adenoma

Cystic, Mild

\* Preputial Gland  
Note: ADENOMA TGLs = 4-10  
Skin  
[ Fibrosarcoma TGLS = 5-17 ]

Subcut Tiss

Adenoma

Fibrosarcoma

\* Testes  
Bilateral, Interstit Cell

Adenoma

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 234

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 648

**DOSE:** 100 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870784

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ADENOMA	TGLs = 6-10		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland		Adenoma	
Tooth		Inflammation	Suppurative, Chronic, Moderate
		Necrosis	Multifocal, Minimal
Zymbal's Gland		Carcinoma	
Note: CARCINOMA	TGLs = 2-18		

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-19, THERE IS NO ZYMBALS TUMOR IN THIS SECTION

Animal Note: MORIBUND SAC DUE TO ZYMBALS GLAND TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 235

TRT#: 7

SEX: Male

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870785

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver		Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose		Inflammation	Chronic Active, Mild
		Metaplasia	Squamous, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 236

TRT#: 7

SEX: Male

DAY ON TEST: 570

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870786

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Pituitary Gland  
Stomach - Glandular

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Prostate  
\* Thyroid Gland

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Salivary Glands  
Trachea

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Skin  
\* Urinary Bladder

MISSING

\* Parathyroid Gland

\* Preputial Gland

\* Thymus

OBSERVATIONS

* Epididymis	Serosa	Mesothelioma Malignant	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 4-4			
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery		Mesothelioma Malignant	
Note: MESOTHELIO MAL TGLs = 3-15			
* Nose	Mucosa	Inflammation	Acute, Mild
	Mucosa	Ulcer	Mild
* Pancreas	Serosa	Mesothelioma Malignant	
Note: MESOTHELIO MAL TGLs = 2-6			
Seminal Vesicle	Serosa	Mesothelioma Malignant	
* Spleen		Leukemia Mononuclear	
Stomach	Forestomach	Inflammation	Chronic Active, Mild
	Forestomach	Squamous Cell Papilloma	
Note: SQ CL PAPILLOM TGLs = 6-16			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 236	<b>TRT#:</b> 7 <b>DOSE:</b> 100 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 570 <b>HISTO:</b> 870786
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA Tooth	TGLs = 5-10	Serosa Lower, Molar, Peridont Tiss Dentine, Incisor	Mesothelioma Malignant Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Minimal
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PRIMARY CAUSE OF DEATH

-

Animal Note: COD, MALIGNANT MESOTHELIOMA

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Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 237

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870787

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Minimal
Bone	Humerus	Fibrous Osteodystrophy	Minimal
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Clear Cell Focus	
	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hepatodiaphragmatic Nodule	
		Hyperplasia	Mild
		Leukemia Mononuclear	
Note: HDN TGLs = 3-16			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	Follicle	Cyst	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 237

**TRT#:** 7  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 730  
**HISTO:** 870787

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Ameloblast, Incisor	Degeneration	Moderate
	Dentine, Incisor	Dysplasia	Mild
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

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Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 238

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870788

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 239

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870789

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 2-15		
Note: ATROPHY	TGLs = 2-15		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Intermed	Cyst	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 1-10		
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 240

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 184

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870790

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 241

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870791

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
Bone	Thoracic, Vertebra	Osteosclerosis	Minimal
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 5-1 ]			
* Liver		Basophilic Focus	
	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
	Pars Distalis	Cyst	
Note: ADENOMA TGLs = 6-7			
* Preputial Gland	Duct	Cyst	
		Inflammation	Chronic Active, Moderate
Note: CYST TGLs = 1-15			
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-1			
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 241

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870791

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA      TGLs = 3-10

\* Thymus

Depletion Lymphoid

Moderate

\* Thyroid Gland

C Cell

Hyperplasia

Mild

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: TGL4-10, SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 242

TRT#: 7

SEX: Male

DAY ON TEST: 583

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870792

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Nose
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
	Medulla	Leukemia Mononuclear	
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-7			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Moderate
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLs = 2-15 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Leukemia Mononuclear	
Tooth	Ameloblast, Incisor	Degeneration	Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 242

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 583

**DOSE:** 100 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870792

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 243

TRT#: 7

SEX: Male

DAY ON TEST: 185

DOSE: 100 PPM

DISP: Accidentally Killed

HISTO: 870793

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Skin  
\* Testes  
Trachea

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pituitary Gland  
\* Spleen  
\* Thymus  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Liver  
\* Nose  
\* Salivary Glands  
Stomach - Forestomach  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Pancreas  
Seminal Vesicle  
Stomach - Glandular  
Tooth

**OBSERVATIONS**

\* Heart  
\* Kidney  
Mammary Gland  
\* Preputial Gland  
\* Prostate

Degeneration  
Nephropathy  
Hyperplasia  
Inflammation  
Inflammation

Chronic, Mild  
Chronic, Minimal  
Cystic, Mild  
Chronic Active, Mild  
Chronic Active, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 244

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870794

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Pancreas  
Skin  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pituitary Gland  
Stomach - Glandular

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Salivary Glands  
\* Thyroid Gland

\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
Seminal Vesicle  
Trachea

OBSERVATIONS

\* Adrenal Gland  
Note: PHEOCHROM BGN TGLs = 4-7

Medulla

Pheochromocytoma Benign

Bone

Humerus

Fibrous Osteodystrophy

Minimal

Mandible

Fibrous Osteodystrophy

Moderate

Maxilla

Fibrous Osteodystrophy

Mild

Thoracic, Vertebra

Fibrous Osteodystrophy

Minimal

Tibia

Fibrous Osteodystrophy

Mild

\* Heart

Degeneration

Chronic, Minimal

\* Kidney

Nephropathy

Chronic, Marked

[ Nephropathy TGLS = 3-1 ]

\* Liver

Basophilic Focus

Bile Duct

Hyperplasia

Mild

Mammary Gland

Hyperplasia

Cystic, Mild

\* Parathyroid Gland

Adenoma

\* Preputial Gland

Inflammation

Chronic Active, Mild

\* Prostate

Inflammation

Chronic Active, Mild

\* Spleen

Fibrosis

Moderate

[ Fibrosis TGLS = 2-1 ]

Stomach

Forestomach

Ulcer

Moderate

\* Testes

Bilateral, Interstit Cell

Adenoma

Note: ADENOMA TGLs = 1-10

\* Thymus

Depletion Lymphoid

Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 244

**TRT#:** 7  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 729  
**HISTO:** 870794

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor	Dysplasia	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 245

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870795

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Moderate
	Medulla	Hyperplasia	Minimal
Bone	Coccygeal, Vertebra	Osteosarcoma	
Note: OSTEOSARC TGLs = 5-19			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-1 ]			
* Liver	Bile Duct	Clear Cell Focus	
		Hyperplasia	Mild
* Lung		Osteosarcoma	Metastatic (Bone), Multiple (Bone)
Note: OSTEOSARC TGLs = 3-18,4-2,4-3,4-16,4-17			
Mammary Gland		Hyperplasia	Cystic, Minimal
* Pancreas	Duct	Cyst	
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Carcinoma	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-15			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 245

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870795

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 246

TRT#: 7

SEX: Male

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870796

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thymus	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Inflammation	Chronic Active, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 247

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 184

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870797

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 248

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870798

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-15			
Note: ATROPHY TGLs = 1-15			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-1 ]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Moderate
		Infarct	Moderate
Note: INFARCT TGLs = 4-16			
Note: HYPERPLASIA TGLs = 4-16			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Prostate		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 248

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870798

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: TGL5-4, GRANULAR LIVER NOT APPARENT ON MICRO

Animal Note: BONE, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 249

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870799

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 250

TRT#: 7

SEX: Male

DAY ON TEST: 718

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870800

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla Cortex	Hyperplasia Vacuolization Cytoplasmic Compression Hydrocephalus	Minimal Focal, Moderate
* Brain		Degeneration	Mild
* Heart		Nephropathy	Chronic, Mild
* Kidney [ Nephropathy TGLS = 1-1 ]			Chronic, Marked
* Liver	Hepatocyte Bile Duct	Degeneration Hyperplasia Carcinoma	Cystic, Mild Mild Metastatic (Prostate)
* Lung		Hyperplasia	Cystic, Moderate
Mammary Gland		Adenoma	
* Pituitary Gland	Pars Distalis Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 6-7			
* Preputial Gland		Carcinoma	
Note: CARCINOMA TGLs = 3-16			
* Prostate		Inflammation	Chronic Active, Moderate
Seminal Vesicle		Inflammation	Chronic Active, Mild
* Spleen [ Fibrosis TGLS = 2-15 ]		Fibrosis	Mild
* Testes	Interstit Cell Seminif Tub Interstit Cell	Adenoma Atrophy Hyperplasia	Moderate Mild

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 250

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 718

**DOSE:** 100 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870800

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ATROPHY      TGLs = 4-10

Note: ADENOMA      TGLs = 5-10

\* Thymus

Depletion Lymphoid

Moderate

Tooth

Lower, Molar, Peridont Tiss

Inflammation

Suppurative, Chronic, Mild

Dentine, Incisor

Necrosis

Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: BONE END TEETH, CA F2 GRANULES PRESENT

Animal Note: MORIBUND SAC DUE TO PREPUTIAL GLAND MASS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 251

TRT#: 7

SEX: Male

DAY ON TEST: 459

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870801

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
		Vacuolization Cytoplasmic	Moderate
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 252

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870802

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 253

TRT#: 7

SEX: Male

DAY ON TEST: 702

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870803

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Epididymis	Esophagus
* Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Trachea			

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6-5			
* Islets, Pancreatic		Carcinoma	
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-4		Vacuolization Cytoplasmic	Mild
* Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7-2			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Minimal
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1-15			
Stomach	Glandular	Necrosis	Mild
	Glandular	Pigmentation	Hemosiderin, Mild
Note: PIGMENT TGLs = 9-6			
* Testes	Interstitial Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 253

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 702

**DOSE:** 100 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870803

**ORGAN AND ACCOUNTABLE SITE STATUS**

Seminif Tub  
Interstit Cell

Atrophy  
Hyperplasia

Mild  
Mild

Note: HYPERPLASIA TGLs = 8-10

Note: ATROPHY TGLs = 3-10

Note: ADENOMA TGLs = 2-10

\* Thymus

Depletion Lymphoid

Moderate

\* Thyroid Gland

C Cell

Hyperplasia

Mild

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

\* Urinary Bladder

Submucosa

Ectasia

Moderate

Hemorrhage

Mild

Note: [ ECTASIA ] TGLs = 4-6

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 254

TRT#: 7

SEX: Male

DAY ON TEST: 718

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870804

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Epididymis	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Liver
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Salivary Glands	Seminal Vesicle	* Spleen
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Bone	Humerus	Fibrous Osteodystrophy	Minimal
	Thoracic, Vertebra	Fibrous Osteodystrophy	Minimal
* Brain		Compression	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-15			
Note: ATROPHY TGLs = 1-15			
* Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-1 ]			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Parathyroid Gland		Hyperplasia	Marked
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 5-7			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
Skin	Subcut Tiss	Neurofibroma	
Note: NEUROFIBROMA TGLs = 2-16			
Stomach	Forestomach	Acanthosis	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 254	<b>TRT#:</b> 7	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 718
	<b>DOSE:</b> 100 PPM	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> 870804

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA	TGLs = 3-10	Interstit Cell	Hyperplasia	Mild
* Thymus			Depletion Lymphoid	Marked
Tooth		Ameloblast, Incisor	Degeneration	Marked
		Incisor, Odontoblast	Degeneration	Minimal
		Dentine, Incisor	Dysplasia	Mild
		Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
		Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: MORIBUND SAC DUE TO NEPHROPATHY

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 255

TRT#: 7

SEX: Male

DAY ON TEST: 459

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870805

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	* Thymus
Tooth	Trachea	* Urinary Bladder	

OBSERVATIONS

* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Interstit Cell	Hyperplasia	Mild
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 256

TRT#: 7

SEX: Male

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870806

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
Note: PHEOCHROM BGN TGLs = 2-7			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
[ Vacuolization Cytoplasmic TGLS = 1-15 ]			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA TGLs = 3-10			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 257

TRT#: 7

SEX: Male

DAY ON TEST: 642

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870807

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
* Thyroid Gland	Trachea	* Urinary Bladder	

MISSING

\* Thymus

OBSERVATIONS

* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Moderate
Note: HDN	TGLs = 3-15		
Lymph Node		Inflammation	Acute, Moderate
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland		Adenoma	
Note: ADENOMA	TGLs = 4-7		
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Fibrosis	Marked
Note: FIBROSIS	TGLs = 2-16		
Stomach		Inflammation	Chronic Active, Mild
Note: INFLAMMATION	TGLs = 5-17		
* Testes		Adenoma	
Note: ADENOMA	TGLs = 1-10		
Tooth	Dentine, Incisor	Necrosis	Multifocal, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 257

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 642

**DOSE:** 100 PPM

**DISP:** Natural Death

**HISTO:** 870807

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: COD, PITUITARY TUMOR

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 258

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870808

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 259

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 698

**DOSE:** 100 PPM

**DISP:** Natural Death

**HISTO:** 870809

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	* Thyroid Gland	Trachea
* Urinary Bladder			

**MISSING**

Lymph Node - Mesenteric                      Mammary Gland

**OBSERVATIONS**

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY    TGLs = 6-1			
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Marked
		Hyperplasia	Mild
		Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ]    TGLs = 8-4			
Lymph Node	Mandibular	Leukemia Mononuclear	
Note: LEUKEMIA MONUC    TGLs = 2-7			
Pharynx	Palate	Squamous Cell Papilloma	
Note: SQ CL PAPILLOM    TGLs = 7-15			
* Preputial Gland	Duct	Cyst	
		Inflammation	Chronic Active, Moderate
Note: CYST            TGLs = 1-10			
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC    TGLs = 5-16			
Stomach	Glandular	Necrosis	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 259	<b>TRT#:</b> 7	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 698
	<b>DOSE:</b> 100 PPM	<b>DISP:</b> Natural Death	<b>HISTO:</b> 870809

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: NECROSIS	TGLs = 9-6			
* Testes		Interstit Cell	Adenoma	
		Seminif Tub	Atrophy	Mild
		Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 4-10			
Note: HYPERPLASIA	TGLs = 4-10			
Note: ATROPHY	TGLs = 3-10			
* Thymus			Depletion Lymphoid	Marked
Tooth		Dentine, Incisor	Necrosis	Multifocal, Minimal

---

PRIMARY CAUSE OF DEATH

-

Animal Note: COD,LEUKEMIA MONONUCLEAR AND PHARYNX PAPILLOMA

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 260

TRT#: 7

SEX: Male

DAY ON TEST: 603

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870810

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Nose  
\* Salivary Glands  
Stomach - Forestomach  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Parathyroid Gland  
Seminal Vesicle  
Stomach - Glandular

Bone  
Esophagus  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
\* Pituitary Gland  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
\* Prostate  
\* Spleen  
Trachea

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver  
  
Note: HDN TGLs = 3-15  
\* Lung  
Mammary Gland  
\* Pancreas  
\* Preputial Gland  
  
Note: ADENOMA TGLs = 4-10  
\* Testes  
  
Note: ADENOMA TGLs = 1-10  
\* Thymus  
Tooth

Pleura  
Acinus  
  
Bilateral, Interstit Cell  
Interstit Cell  
  
Dentine, Incisor

Degeneration  
Nephropathy  
Clear Cell Focus  
Hepatodiaphragmatic Nodule  
Inflammation  
Vacuolization Cytoplasmic  
  
Inflammation  
Hyperplasia  
Atrophy  
Adenoma  
Inflammation  
  
Adenoma  
Hyperplasia  
  
Depletion Lymphoid  
Necrosis

Chronic, Moderate  
Chronic, Moderate  
  
Chronic Active, Mild  
Minimal  
  
Chronic Active, Mild  
Cystic, Mild  
Mild  
  
Chronic Active, Mild  
  
Mild  
  
Mild  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, UNDETERMINED

Animal Note: TGL2-10SEMINAL VESICLES WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 260

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 603

**DOSE:** 100 PPM

**DISP:** Natural Death

**HISTO:** 870810

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

---

**ANIMAL ID:** 261

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870811

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 262

TRT#: 7

SEX: Male

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870812

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Trachea	* Urinary Bladder	

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Moderate
* Lung		Alveolar/Bronchiolar Adenoma	
		Inflammation	Chronic Active, Focal, Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Tooth	Molar, Peridont Tiss	Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 263

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870813

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 264

TRT#: 7

SEX: Male

DAY ON TEST: 575

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870814

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

MISSING

\* Thymus

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear Degeneration	Chronic, Moderate
* Heart		Leukemia Mononuclear	
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC	TGLs = 3-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-7,5-2,6-6		
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION	TGLs = 7-16		
* Nose	Mucosa	Inflammation	Acute, Minimal
	Mucosa	Ulcer	Mild
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 264

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 575

**DOSE:** 100 PPM

**DISP:** Natural Death

**HISTO:** 870814

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: LEUKEMIA MONUC	TGLs = 1-15			
Note: FIBROSIS	TGLs = 8-15			
Stomach		Forestomach	Acanthosis	Moderate
Note: ACANTHOSIS	TGLs = 9-6			
* Testes		Interstit Cell	Adenoma	
		Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 2-10			
Tooth		Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
		Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 265

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870815

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Minimal
	Medulla	Hyperplasia	Mild
Bone	Humerus	Fibrous Osteodystrophy	Mild
	Mandible	Fibrous Osteodystrophy	Moderate
	Maxilla	Fibrous Osteodystrophy	Mild
	Thoracic, Vertebra	Fibrous Osteodystrophy	Minimal
	Tibia	Fibrous Osteodystrophy	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
	[ Nephropathy TGLS = 3-1 ]		
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Inflammation	Chronic Active, Moderate
Stomach	Forestomach	Acanthosis	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 1-10		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Dentine, Incisor	Dysplasia	Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 265

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870815

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: TGL2-15, SPLEEN APPEARS WITHIN NORMAL LIMITS ON MICRO

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 266

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870816

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-1 ]			
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Note: CLEAR CL FOCUS TGLs = 4-16,6-17			
* Lung	Alveolar Epith	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 5-7			
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 267

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870817

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Bone	Epiphysis, Tibia	Cyst	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Marked
Note: [ ATROPHY ] TGLs = 1-15			
Note: [ CATARACT ] TGLs = 1-15			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 5-1 ]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
Note: [ CLEAR CL FOCUS ] TGLs = 4-17		Leukemia Mononuclear	
* Lung	Alveolar Epith	Hyperplasia	Mild
Note: [ HYPERPLASIA ] TGLs = 6-18			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-16 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 267

**TRT#:** 7  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 731  
**HISTO:** 870817

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Testes Note: [ ADENOMA ] TGLs = 2-10	Bilateral, Interstit Cell	Adenoma	
* Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Dysplasia	Mild
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 268

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870818

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mandibular	* Nose	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
Lymph Node	Mesenteric	Angiectasis	Marked
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Congestion	Mild
	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 1-10		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 269

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870819

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Lung
* Nose	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Moderate
Note: [ DEGEN ] TGLs = 4-17			
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 7-1 ]			
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Moderate
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 8-4			
Note: [ HDN ] TGLs = 6-19			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin		Squamous Cell Papilloma	
Note: SQ CL PAPILOM TGLs = 1-15			
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 269	<b>TRT#:</b> 7	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> 100 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 870819

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: FIBROSIS	TGLs = 9-20		
	[ Leukemia Mononuclear TGLS = 5-18 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: [ ADENOMA	] TGLs = 3-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

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Animal Note: TGL2-16, FOCUS NOT APPARENT ON MICRO

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 270

TRT#: 7

SEX: Male

DAY ON TEST: 716

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870820

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Bone	Cartilage, Humerus, Joint	Necrosis	Focal, Moderate
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-1 ]			
* Liver	Bile Duct	Basophilic Focus	Mild
		Hyperplasia	Moderate
		Hyperplasia	
		Leukemia Mononuclear	
Note: HYPERPLASIA TGLs = 4-4			
Lymph Node	Mediastinal	Congestion	Moderate
Note: CONGESTION TGLs = 3-2			
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin	Subcut Tiss	Fibroma	
Note: FIBROMA TGLs = 1-16			
* Spleen		Leukemia Mononuclear	
Stomach	Glandular	Pigmentation	Hemosiderin, Mild
	Forestomach	Ulcer	Moderate
Note: PIGMENT TGLs = 7-6			
Note: ULCER TGLs = 8-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 270	<b>TRT#:</b> 7 <b>DOSE:</b> 100 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 716 <b>HISTO:</b> 870820
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ATROPHY Note: ADENOMA	TGLs = 6-10 TGLs = 5-10	Interstit Cell	Hyperplasia	Mild
* Thymus		C Cell	Depletion Lymphoid Adenoma	Marked
* Thyroid Gland		Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
Tooth		Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: COD, NEPHROPATHY, CHRONIC

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 271

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870821

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 272

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870822

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

MISSING

\* Thymus

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-15			
Note: CATARACT TGLs = 1-15			
* Heart		Degeneration	Chronic, Moderate
* Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-1 ]			
* Liver	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Fibrosis	Mild
Note: FIBROSIS TGLs = 3-1			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 272

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 731

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870822

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 273

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870823

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-15		
Note: ATROPHY	TGLs = 1-15		
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Clear Cell Focus	
	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Prostate		Dilatation	Moderate
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
[ Fibrosis TGLS = 3-16 ]			
[ Leukemia Mononuclear TGLS = 2-1 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 4-10		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	Bilateral, C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 273

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870823

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 274

TRT#: 7

SEX: Male

DAY ON TEST: 684

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870824

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
Bone	Tibia	Osteosclerosis	Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Thrombosis	
Note: THROMBUS	TGLs = 6-15		
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-5,4-7		
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5-16		
Stomach	Glandular	Pigmentation	Hemosiderin, Mild
Note: PIGMENT	TGLs = 7-17,8-17,9-17,10-17		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 274	<b>TRT#:</b> 7 <b>DOSE:</b> 100 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 684 <b>HISTO:</b> 870824
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Interstit Cell Seminif Tub Interstit Cell	Adenoma Atrophy Hyperplasia	Mild Mild
Note: ADENOMA	TGLs = 2-10		
Note: HYPERPLASIA	TGLs = 2-10		
Note: ATROPHY	TGLs = 1-10		
* Thymus		Leukemia Mononuclear	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

Animal Note: TGL3-10, SEMINAL VESICLES WITHIN NORMAL LIMITS

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 275

TRT#: 7

SEX: Male

DAY ON TEST: 404

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870825

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Epididymis	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Testes
* Thymus	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder			

**MISSING**

Mammary Gland

**OBSERVATIONS**

* Brain		Compression	
		Hydrocephalus	Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 1-14		
* Preputial Gland		Inflammation	Chronic Active, Moderate

PRIMARY CAUSE OF DEATH

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Animal Note: MORIBUND SAC DUE TO PITUITARY TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 276

TRT#: 7

SEX: Male

DAY ON TEST: 731

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870826

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Cortex	Hypertrophy	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-15		
Note: CATARACT	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Congestion	Moderate
Note: CONGESTION	TGLs = 3-7		
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 276

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 731

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870826

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: TGL4-1, SPLEEN IRREGULAR SURFACE WITHIN NORMAL

Animal Note: LIMITS ON MICRO

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 277

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870827

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-15		
Note: CATARACT	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
Note: CLEAR CL FOCUS	TGLs = 5-4,5-17		
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Duct	Cyst	
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Fibrosis	Mild
		Hematopoietic Cell Proliferation	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 277

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 732

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870827

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: HEMA CELL PROL TGLs = 2-16

Note: FIBROSIS TGLs = 4-16

\* Testes Bilateral, Interstit Cell

Adenoma

Note: ADENOMA TGLs = 3-10

\* Thymus Depletion Lymphoid Moderate

Tooth Dentine, Incisor Necrosis Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

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Animal Note: BONEAND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 278

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870828

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

Bone	Humerus	Fibrous Osteodystrophy	Minimal
	Tibia	Osteosclerosis	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-15		
Note: CATARACT	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Islets, Pancreatic		Hyperplasia	Moderate
* Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Marked
	[ Nephropathy TGLS = 3-1 ]		
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL4-16, LIVER FOCUS NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 278

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870828

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 279

TRT#: 7

SEX: Male

DAY ON TEST: 717

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870829

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Seminal Vesicle	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Cortex Bilateral, Medulla	Hyperplasia Pheochromocytoma Benign	Mild
Eye	Retina Lens	Atrophy Cataract	Marked Moderate
Note: ATROPHY TGLs = 1-17			
Note: CATARACT TGLs = 1-17			
* Heart	Atrium	Degeneration Dilatation	Chronic, Minimal Moderate
[ Degeneration TGLS = 4-4 ]			
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 5-1 ]			
* Liver	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland	Duct	Cyst	
Note: CYST TGLs = 3-10			
* Prostate		Inflammation	Chronic Active, Mild
Skin	Subcut Tiss	Fibroma	
Note: [ FIBROMA ] TGLs = 2-18			
* Testes	Bilateral, Interstit Cell Seminif Tub	Adenoma Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 279

TRT#: 7

SEX: Male

DAY ON TEST: 717

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870829

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ATROPHY	TGLs = 7-10	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 6-10			
* Thyroid Gland		C Cell	Adenoma	
		Follicle	Cyst	
		Follicular Cel	Hyperplasia	Minimal
Tooth		Incisor, Odontoblast	Degeneration	Minimal
		Dentine, Incisor	Dysplasia	Mild
		Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: MORIBUND SAC DUE TO NEPHROPATHY AND SKIN MASS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 280

TRT#: 7

SEX: Male

DAY ON TEST: 660

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870830

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland Note: CONGESTION TGLs = 7-7	Cortex	Congestion	Moderate
* Heart		Degeneration	Chronic, Moderate
* Kidney Note: HYDRONEPHROSIS TGLs = 5-1,5-18		Hydronephrosis	Moderate
		Nephropathy	Chronic, Moderate
* Liver Note: CONGESTION TGLs = 6-19		Congestion	Moderate
		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Marked
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Prostate Note: INFLAMMATION TGLs = 8-14,8-15		Inflammation	Chronic Active, Marked
Seminal Vesicle Note: DILATATION TGLs = 2-10		Dilatation	Moderate
* Testes Note: ATROPHY TGLs = 4-16 Note: ADENOMA TGLs = 3-16	Bilateral, Interstit Cell Seminif Tub	Adenoma Atrophy	Mild
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 280	<b>TRT#:</b> 7 <b>DOSE:</b> 100 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 660 <b>HISTO:</b> 870830
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor Lower, Molar, Peridont Tiss Dentine, Incisor	Dysplasia Inflammation Necrosis	Mild Suppurative, Chronic, Mild Multifocal, Minimal
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**PRIMARY CAUSE OF DEATH**

-

Animal Note: COD, PROSTATIC INFLAMMATION

Animal Note: TGL1-17, DILATED BLADDER WITHIN NORMAL LIMITS ON MICRO

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 281

TRT#: 7

SEX: Male

DAY ON TEST: 607

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870831

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 7-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-2,8-17,9-16			
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Marked
* Pancreas	Acinus	Atrophy	Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-15			
* Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 281

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 607

**DOSE:** 100 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870831

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ATROPHY      TGLs = 3-10

Note: ADENOMA      TGLs = 4-10

\* Thymus

Depletion Lymphoid

Marked

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 282

TRT#: 7

SEX: Male

DAY ON TEST: 607

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
Bone	Tibia	Osteosclerosis	Minimal
* Bone Marrow	Femoral	Leukemia Mononuclear	
Ear	Pinna	Fibrosarcoma	
Note: FIBROSARC TGLs = 1-15			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 5-4			
* Lung		Fibrosarcoma	Metastatic (Ear)
Lymph Node	Mandibular	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-7			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-16 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 4-10			
* Thyroid Gland	C Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 282

**TRT#:** 7  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 607  
**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
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**PRIMARY CAUSE OF DEATH**

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 283

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870833

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Cortex	Hypertrophy	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Atrophy	Mild
	Acinus	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin		Basal Cell Carcinoma	
Note: BASAL CEL CARC TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-10 SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 283

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 732

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870833

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 284

TRT#: 7

SEX: Male

DAY ON TEST: 732

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870834

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Parathyroid Gland	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex Bilateral, Medulla	Adenoma Pheochromocytoma Benign	
Note: ADENOMA TGLs = 3-7			
Eye	Retina Lens	Atrophy Cataract	Moderate Moderate
Note: ATROPHY TGLs = 1-17			
Note: CATARACT TGLs = 1-17			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-1 ]			
* Liver	Hepatocyte	Basophilic Focus Clear Cell Focus Degeneration Eosinophilic Focus	Cystic, Mild
Note: CLEAR CL FOCUS TGLs = 5-15,5-16	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 284

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 732

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870834

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA      TGLs = 2-10

\* Thymus

Depletion Lymphoid

Moderate

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 285

TRT#: 7

SEX: Male

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870835

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thymus	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Testes	Interstitial Cell	Adenoma	
	Interstitial Cell	Hyperplasia	Mild

Note: ADENOMA TGLs = 1-10

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 286

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870836

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

MISSING

\* Pituitary Gland

OBSERVATIONS

* Adrenal Gland Note: PHEOCHROM MAL TGLs = 1-7	Medulla	Pheochromocytoma Malignant	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Clear Cell Focus	
Mammary Gland	Bile Duct	Hyperplasia	Mild
* Nose	Sinus	Hyperplasia	Cystic, Mild
	Mucosa	Foreign Body	Mild
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Testes	Interstit Cell	Inflammation	Chronic Active, Minimal
* Thymus		Hyperplasia	Mild
Tooth	Ameloblast, Incisor	Depletion Lymphoid	Marked
	Dentine, Incisor	Degeneration	Marked
	Lower, Molar, Peridont Tiss	Dysplasia	Moderate
		Inflammation	Suppurative, Chronic, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 287

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870837

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hepatocellular Adenoma	
Note: HEPATOCLR ADEN TGLs = 3-4		Hyperplasia	Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hemorrhage	Moderate
	Pars Distalis	Hyperplasia	Moderate
Skin		Trichoepithelioma	
Note: TRICHOEPITHEL TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 287

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870837

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 288

TRT#: 7

SEX: Male

DAY ON TEST: 681

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870838

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Skin  
Trachea

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Parathyroid Gland  
\* Spleen

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Pituitary Gland  
Stomach - Forestomach

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Salivary Glands  
\* Thyroid Gland

MISSING

\* Preputial Gland  
\* Urinary Bladder

\* Prostate

Seminal Vesicle

\* Thymus

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver  
  
Mammary Gland  
\* Nose  
\* Pancreas  
Stomach  
\* Testes

Bile Duct

Mucosa  
Acinus  
Glandular  
Bilateral, Interstit Cell

Degeneration  
Nephropathy  
Hyperplasia  
Vacuolization Cytoplasmic  
Hyperplasia  
Inflammation  
Atrophy  
Mineralization  
Adenoma

Chronic, Mild  
Chronic, Moderate  
Moderate  
Moderate  
Cystic, Minimal  
Chronic Active, Moderate  
Moderate  
Mild

Note: ADENOMA TGLs = 2-10

Tissue NOS

Note: [ FIBROSARC ] TGLs = 1-15,1-16

Tooth

Dentine, Incisor  
Lower, Molar, Peridont Tiss  
Dentine, Incisor

Fibrosarcoma  
  
Dysplasia  
Inflammation  
Necrosis

Minimal  
Suppurative, Chronic, Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-10, TESTIS SIZE WITHIN NORMAL LIMITS

Animal Note: MORIBUND SAC DUE TO A MASS IN THE PREPUTIAL AREA

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 289

TRT#: 7

SEX: Male

DAY ON TEST: 733

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870839

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Chronic, Marked
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: [ ADENOMA ] TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	Follicular Cel	Adenoma	
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 290

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870840

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Mild
* Kidney	Cortex	Myxoma	
		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Congestion	Mild
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
Note: CONGESTION	TGLs = 2-15		
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 1-10		
* Thymus		Depletion Lymphoid	Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 291

TRT#: 9

SEX: Male

DAY ON TEST: 459

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870571

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
Tooth	Trachea	* Urinary Bladder	

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Inflammation	Chronic Active, Mild
		Metaplasia	Squamous, Minimal
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Testes	Interstit Cell	Hyperplasia	Mild
* Thyroid Gland	Follicular Cel	Carcinoma	

Note: CARCINOMA TGLs = 1-15

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 292

TRT#: 9

SEX: Male

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870572

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla Cortex	Pheochromocytoma Benign Vacuolization Cytoplasmic Degeneration Hyperplasia	Focal, Mild Chronic, Mild Mild
* Heart		Nephropathy	Chronic, Marked
* Islets, Pancreatic		Basophilic Focus Eosinophilic Focus	
* Kidney	Bile Duct	Hyperplasia	Mild
* Liver		Hyperplasia	Cystic, Mild
Note: [ EOSIN FOCUS ] TGLs = 5-4		Atrophy	Mild
Mammary Gland	Acinus	Cyst	
* Pancreas	Pars Intermed	Carcinoma Inflammation	Chronic Active, Mild
* Pituitary Gland		Adenoma	
* Preputial Gland		Hyperplasia	Mild
Note: [ CARCINOMA ] TGLs = 1-15		Depletion Lymphoid	Mild
* Testes	Bilateral, Interstit Cell Interstit Cell	Adenoma	
Note: [ ADENOMA ] TGLs = 2-10		Inflammation	Suppurative, Chronic, Mild
* Thymus			
* Thyroid Gland	Bilateral, C Cell		
Note: [ ADENOMA ] TGLs = 4-7			
Tooth	Lower, Molar, Peridont Tiss		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 292

**TRT#:** 9  
**DOSE:** 175 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 730  
**HISTO:** 870572

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Dentine, Incisor

Necrosis

Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

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Animal Note: TGL3-10, SEMINAL VESICLES WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 293

TRT#: 9

SEX: Male

DAY ON TEST: 628

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870573

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Skin  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Nose  
Stomach - Forestomach

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Parathyroid Gland  
\* Thyroid Gland

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Seminal Vesicle  
Trachea

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear Degeneration	Chronic, Moderate
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-1 ]			
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear Vacuolization Cytoplasmic	Mild  Mild
Note: LEUKEMIA MONUC TGLs = 1-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular Mediastinal Mesenteric	Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4-7,5-17,8-19			
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7-15			
* Pancreas		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Leukemia Mononuclear	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Moderate
* Salivary Glands		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 293	<b>TRT#:</b> 9 <b>DOSE:</b> 175 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 628 <b>HISTO:</b> 870573
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LEUKEMIA MONUC TGLs = 10-5 * Spleen [ Leukemia Mononuclear TGLS = 3-18 ]		Leukemia Mononuclear	
Stomach Note: NECROSIS TGLs = 9-16	Glandular	Necrosis	Mild
* Testes Note: ADENOMA TGLs = 6-10	Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
* Thymus		Leukemia Mononuclear	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 294

TRT#: 9

SEX: Male

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870574

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Parathyroid Gland
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex Medulla	Hyperplasia Pheochromocytoma Benign	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia Leukemia Mononuclear	Moderate
Note: HDN TGLs = 3-15 Note: LEUKEMIA MONUC TGLs = 2-4			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Congestion	Marked
Note: ADENOMA TGLs = 4-7			
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 294

**TRT#:** 9  
**DOSE:** 175 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 730  
**HISTO:** 870574

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor Lower, Molar, Peridont Tiss Dentine, Incisor	Dysplasia Inflammation Necrosis	Minimal Suppurative, Chronic, Moderate Multifocal, Minimal
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 295

TRT#: 9

SEX: Male

DAY ON TEST: 460

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870575

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Trachea	* Urinary Bladder

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Tooth	Molar, Peridont Tiss	Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 296

TRT#: 9

SEX: Male

DAY ON TEST: 587

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870576

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
Seminal Vesicle	* Spleen	Stomach - Glandular	Tooth
Trachea	* Urinary Bladder		

MISSING

Mammary Gland

OBSERVATIONS

* Brain		Compression	
* Epididymis	Serosa	Mesothelioma Benign	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Moderate
Note: CLEAR CL FOCUS TGLs = 4-17			
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 3-7			
* Prostate		Atrophy	Marked
Skin	Subcut Tiss	Fibroma	
Note: FIBROMA TGLs = 7-19			
Stomach	Forestomach	Inflammation	Chronic Active, Moderate
	Forestomach	Ulcer	Marked
Note: ULCER TGLs = 6-18			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Mild
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA TGLs = 5-10			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 296	<b>TRT#:</b> 9	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 587
	<b>DOSE:</b> 175 PPM	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> 870576

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
Zymbal's Gland	Bilateral	Carcinoma	
Note: CARCINOMA	TGLs = 1-15,2-16		

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PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO PITUITARY AND ZYMBALS TUMORS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 297

TRT#: 9

SEX: Male

DAY ON TEST: 464

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870577

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

MISSING

Mammary Gland

OBSERVATIONS

* Brain		Compression	
		Hydrocephalus	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 1-7		
* Prostate		Inflammation	Chronic Active, Mild
* Testes	Seminif Tub	Atrophy	Mild
	Interstit Cell	Hyperplasia	Minimal
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, PITUITARY TUMOR

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 298

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 184

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870578

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Gland - Cortex  
Epididymis  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Trachea

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Preputial Gland  
Skin  
Testes  
Urinary Bladder

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Pancreas  
Prostate  
Spleen  
Thymus

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Parathyroid Gland  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

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**OBSERVATIONS**

Heart  
Kidney  
Mammary Gland

Degeneration  
Nephropathy  
Hyperplasia

Chronic, Mild  
Chronic, Minimal  
Cystic, Mild

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 299

TRT#: 9

SEX: Male

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870579

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Minimal
	Medulla	Pheochromocytoma Benign	
Note: PHEOCHROM BGN TGLs = 8-7			
Bone			
Note: CA F2 GRANULES IN BONE.			
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-16			
Note: CATARACT TGLs = 1-16			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 6-1 ]			
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: HDN TGLs = 3-17			
Note: LEUKEMIA MONUC TGLs = 5-4			
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland	Duct	Cyst	
		Hyperplasia	Glandular, Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 299

TRT#: 9

SEX: Male

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870579

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: CYST	TGLs = 2-10		Inflammation	Chronic Active, Mild
* Spleen			Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 4-15 ]			
* Testes		Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 7-10			
* Thymus			Depletion Lymphoid	Marked
* Thyroid Gland		C Cell	Hyperplasia	Mild
Tooth		Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
		Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 300

TRT#: 9

SEX: Male

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870580

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Bone	Humerus	Fibrous Osteodystrophy	Mild
	Maxilla	Fibrous Osteodystrophy	Mild
	Thoracic, Vertebra	Fibrous Osteodystrophy	Mild
	Tibia	Fibrous Osteodystrophy	Mild
Note: BONE: CA F2 GRANULES			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-1 ]			
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Artery	Inflammation	Chronic Active, Mild
* Parathyroid Gland		Hyperplasia	Moderate
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Incisor, Odontoblast	Degeneration	Minimal
	Dentine, Incisor	Dysplasia	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 300

**TRT#:** 9  
**DOSE:** 175 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 730  
**HISTO:** 870580

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Lower, Molar, Peridont Tiss  
Dentine, Incisor

Inflammation  
Necrosis

Suppurative, Chronic, Moderate  
Multifocal, Mild

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Note: TEETH: CA F2 GRANULES

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 301

TRT#: 9

SEX: Male

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870581

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland
* Pancreas	* Parathyroid Gland	* Prostate	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
Bone			
Note: BONE: CA F2 GRANULES PRESENT			
* Heart		Degeneration	Chronic, Moderate
* Kidney	Epithelium, Renal Tubule	Hyperplasia	Focal, Moderate
		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-1 ]			
* Liver	Bile Duct	Hyperplasia	Mild
* Lung		Inflammation	Chronic Active, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Salivary Glands	Acinus	Atrophy	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Minimal
Tooth	Dentine, Incisor	Necrosis	Multifocal, Mild
Note: TEETH: CA F2 GRANULES PRESENT			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 302

TRT#: 9

SEX: Male

DAY ON TEST: 687

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870582

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Epididymis	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Nose	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6-2,6-3		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 2-15		
* Preputial Gland		Inflammation	Chronic Active, Moderate
Note: INFLAMMATION	TGLs = 7-10		
Skin		Keratoacanthoma	
Note: KERATOACANTHMA	TGLs = 1-17		
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-16		
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 4-10		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 302	<b>TRT#:</b> 9 <b>DOSE:</b> 175 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 687 <b>HISTO:</b> 870582
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: TGL5-4, HEART SIZE WITHIN NORMAL LIMITS

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 303

TRT#: 9

SEX: Male

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870583

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
* Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Carcinoma	
Note: CARCINOMA	TGLs = 2-16		
Skin		Papilloma	
Note: PAPILLOMA	TGLs = 1-15		
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Mild
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 3-10		
Note: ATROPHY	TGLs = 4-10		
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 304

TRT#: 9

SEX: Male

DAY ON TEST: 646

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870584

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

MISSING

Mammary Gland

OBSERVATIONS

* Adrenal Gland	Medulla Cortex	Pheochromocytoma Benign Vacuolization Cytoplasmic	Focal, Mild
Bone			
Note: BONE: CA F2 GRANULES PRESENT			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Leukemia Mononuclear Adenoma	
* Preputial Gland		Carcinoma	
Note: CARCINOMA TGLs = 1-15			
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	Bilateral, C Cell	Adenoma	
Tooth	Dentine, Incisor	Dysplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 304

**TRT#:** 9  
**DOSE:** 175 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 646  
**HISTO:** 870584

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Dentine, Incisor

Necrosis

Multifocal, Minimal

Note: TEETH:CA F2 GRANULES PRESENT

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PRIMARY CAUSE OF DEATH

-

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Animal Note: MORIBUND SAC DUE TO PREPUTIAL GLAND TUMOR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 305

TRT#: 9

SEX: Male

DAY ON TEST: 570

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870585

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Parathyroid Gland  
Seminal Vesicle  
Stomach - Glandular

\* Adrenal Gland - Medulla  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pituitary Gland  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Prostate  
\* Spleen  
Trachea

\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Pancreas  
\* Salivary Glands  
Stomach - Forestomach  
\* Urinary Bladder

OBSERVATIONS

Bone  
\* Brain  
\* Heart  
\* Kidney  
\* Liver  
  
Mammary Gland  
\* Nose  
\* Preputial Gland  
\* Testes  
  
Note: ADENOMA TGLs = 1-10  
\* Thymus  
Tooth  
Zymbal's Gland  
Note: CARCINOMA TGLs = 2-15

Cartilage, Joint, Tibia  
  
Bile Duct  
  
Mucosa  
  
Interstit Cell  
Interstit Cell

Degeneration  
Hemorrhage  
Degeneration  
Nephropathy  
Hyperplasia  
Vacuolization Cytoplasmic  
Hyperplasia  
Inflammation  
Inflammation  
Adenoma  
Hyperplasia  
  
Depletion Lymphoid  
Inflammation  
Carcinoma

Mild  
Moderate  
Chronic, Minimal  
Chronic, Mild  
Minimal  
Minimal  
Cystic, Mild  
Acute, Mild  
Chronic Active, Mild  
  
Minimal  
  
Mild  
Suppurative, Moderate

PRIMARY CAUSE OF DEATH

-  
Animal Note: MORIBUND SAC DUE TO ZYMBALS GLAND TUMOR  
Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 306

TRT#: 9

SEX: Male

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870586

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Blood	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland Note: ADENOMA TGLs = 3-7	Cortex	Adenoma	
Bone Note: BONE: CA F2 GRANULES PRESENT			
Eye Note: ATROPHY TGLs = 1-15 Note: CATARACT TGLs = 1-15	Retina Lens	Atrophy Cataract	Marked Moderate
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Eosinophilic Focus	
* Lung	Bile Duct	Hyperplasia	Mild
Mammary Gland		Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Hyperplasia	Cystic, Mild
* Preputial Gland		Atrophy	Mild
* Testes Note: ADENOMA TGLs = 2-10	Bilateral, Interstit Cell	Inflammation	Chronic Active, Moderate
		Adenoma	
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland Note: CARCINOMA TGLs = 4-7	C Cell	Carcinoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 306

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870586

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: TEETH: CA F2 GRANULES PRESENT

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 307

TRT#: 9

SEX: Male

DAY ON TEST: 661

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870587

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	Seminal Vesicle	Stomach - Forestomach	* Thyroid Gland
Trachea	* Urinary Bladder		

MISSING

Mammary Gland

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 4-4,5-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Dilatation	Marked
Note: DILATATION TGLs = 6-16			
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1-17			
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-1,2-15			
Stomach	Glandular	Ulcer	Mild
Note: ULCER TGLs = 7-6			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 307

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 661

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870587

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes Note: ADENOMA      TGLs = 3-10	Bilateral, Interstit Cell	Adenoma	
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 308

TRT#: 9

SEX: Male

DAY ON TEST: 459

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870588

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
* Nose		Inflammation	Chronic Active, Moderate
		Metaplasia	Squamous, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 309

TRT#: 9

SEX: Male

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870589

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
Bone			
Note: BONE: CA F2 GRANULES PRESENT			
* Heart		Degeneration	Chronic, Moderate
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-1 ]			
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Artery	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Dentine, Incisor	Dysplasia	Mild
	Dentine, Incisor	Necrosis	Multifocal, Mild
Note: TEETH: CA F2 GRANULES PRESENT			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 310

TRT#: 9

SEX: Male

DAY ON TEST: 459

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
 \* Brain  
 Intestine Large - Colon  
 Intestine Small - Jejunum  
 Lymph Node - Mesenteric  
 \* Pituitary Gland  
 Seminal Vesicle  
 Stomach - Glandular  
 \* Urinary Bladder

\* Adrenal Gland - Medulla  
 \* Epididymis  
 Intestine Large - Rectum  
 \* Islets, Pancreatic  
 \* Nose  
 \* Preputial Gland  
 Skin  
 \* Thymus

Bone  
 Esophagus  
 Intestine Small - Duodenum  
 \* Lung  
 \* Pancreas  
 \* Prostate  
 \* Spleen  
 Tooth

\* Bone Marrow  
 Intestine Large - Cecum  
 Intestine Small - Ileum  
 Lymph Node - Mandibular  
 \* Parathyroid Gland  
 \* Salivary Glands  
 Stomach - Forestomach  
 Trachea

OBSERVATIONS

\* Heart  
 \* Kidney  
 \* Liver  
  
 Mammary Gland  
 \* Testes  
  
 \* Thyroid Gland

Bile Duct  
  
 Bilateral, Interstit Cell  
 Interstit Cell  
 C Cell  
 C Cell

Degeneration  
 Nephropathy  
 Hyperplasia  
 Inflammation  
 Vacuolization Cytoplasmic  
 Hyperplasia  
 Adenoma  
 Hyperplasia  
 Adenoma  
 Hyperplasia

Chronic, Moderate  
 Chronic, Moderate  
 Mild  
 Chronic Active, Minimal  
 Moderate  
 Cystic, Mild  
  
 Mild  
  
 Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 311

TRT#: 9

SEX: Male

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870591

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Cortex	Hypertrophy	Mild
	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
	[ Nephropathy TGLS = 3-1,3-15 ]		
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Lymph Node	Deep Cervical	Carcinoma	Metastatic (Thyroid Gland)
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
Note: ATROPHY	TGLs = 2-10		
Note: ADENOMA	TGLs = 1-10		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Carcinoma	
Note: CARCINOMA	TGLs = 4-16		
Tooth	Ameloblast, Incisor	Degeneration	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:19  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 311	<b>TRT#:</b> 9 <b>DOSE:</b> 175 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 731 <b>HISTO:</b> 870591
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Dentine, Incisor	Dysplasia	Mild
Dentine, Incisor	Necrosis	Multifocal, Mild

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT.

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 312

TRT#: 9

SEX: Male

DAY ON TEST: 729

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870592

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
Note: EOSIN FOCUS TGLs = 3-15	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
	Artery	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Congestion	Moderate
Note: CONGESTION TGLs = 2-7			
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 313

TRT#: 9

SEX: Male

DAY ON TEST: 561

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870593

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Epididymis	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC	TGLs = 5-16,2-1,2-2		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Mucosa	Inflammation	Acute, Moderate
* Spleen		Leukemia Mononuclear	
		Necrosis	Moderate
[ Leukemia Mononuclear TGLS = 1-15 ]			
Stomach	Glandular	Necrosis	Mild
Note: NECROSIS	TGLs = 4-6		
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 3-10		
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:19

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 313

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 561

**DOSE:** 175 PPM

**DISP:** Natural Death

**HISTO:** 870593

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:19

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 314

TRT#: 9

SEX: Male

DAY ON TEST: 729

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870594

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 4-17			
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Adenoma	
		Inflammation	Chronic Active, Mild
Note: ADENOMA TGLs = 2-16			
Skin	Subcut Tiss	Fibroma	
Note: FIBROMA TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 3-10			
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
	Follicular Cel	Adenoma	
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 314

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870594

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 315

TRT#: 9

SEX: Male

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870595

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-15		
Note: CATARACT	TGLs = 1-15		
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Mild

PRIMARY CAUSE OF DEATH

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Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 316

TRT#: 9

SEX: Male

DAY ON TEST: 678

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870596

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Heart		Degeneration	Chronic, Mild
* Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Moderate
* Liver		Congestion	Marked
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin	Subcut Tiss	Fibroma	
Note: FIBROMA	TGLs = 1-15		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Peridont Tiss	Fibrosis	Marked
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-10, SEMINAL VESICLES WITHIN NORMAL LIMITS

Animal Note: COD UNDETERMINED

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 316

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 678

**DOSE:** 175 PPM

**DISP:** Natural Death

**HISTO:** 870596

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 317

TRT#: 9

SEX: Male

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870597

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mesenteric	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Cortex	Hypertrophy	Mild
	Medulla	Pheochromocytoma Benign	
Bone	Cartilage, Humerus, Joint	Degeneration	Moderate
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-15		
Note: INFLAMMATION	TGLs = 1-15		
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Duct	Hyperplasia	Mild
	Artery	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Mild
Note: ADENOMA	TGLs = 2-7		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 317

**TRT#:** 9  
**DOSE:** 175 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 731  
**HISTO:** 870597

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
* Testes	Interstit Cell	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Dysplasia	Moderate
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 318

TRT#: 9

SEX: Male

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870598

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

Bone	Tibia	Osteosclerosis	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4-4,4-16			
Note: HDN TGLs = 3-16			
* Lung	Alveolar Epith	Hyperplasia	Mild
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
[ Fibrosis TGLS = 2-15 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Ameloblast, Incisor	Degeneration	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 318

**TRT#:** 9  
**DOSE:** 175 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 731  
**HISTO:** 870598

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Dentine, Incisor  
Dentine, Incisor

Dysplasia  
Necrosis

Mild  
Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

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Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 319

TRT#: 9

SEX: Male

DAY ON TEST: 729

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870599

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Trachea	* Urinary Bladder		

MISSING

Seminal Vesicle

OBSERVATIONS

* Adrenal Gland	Cortex Medulla	Hyperplasia Pheochromocytoma Benign	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Hepatocyte	Basophilic Focus Degeneration Hepatodiaphragmatic Nodule	Cystic, Mild
Note: HDN TGLs = 3-15	Bile Duct	Hyperplasia	Mild
* Lung	Mediastinum Pleura	Mesothelioma Benign Mesothelioma Benign	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus Mucosa Mucosa	Foreign Body Inflammation Squamous Cell Papilloma	Mild Chronic Active, Moderate
Note: SQ CL PAPILOM TGLs = 5-9	Artery	Inflammation	Chronic Active, Moderate
* Pancreas	Palate	Squamous Cell Papilloma	
Note: SQ CL PAPILOM TGLs = 4-8			
* Preputial Gland		Inflammation	Chronic Active, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 319	<b>TRT#:</b> 9 <b>DOSE:</b> 175 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 729 <b>HISTO:</b> 870599
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Bilateral, Interstit Cell Seminif Tub	Adenoma Atrophy	Mild
Note: ATROPHY      TGLs = 1-10 Note: ADENOMA      TGLs = 2-10			
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Mild Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 320

TRT#: 9

SEX: Male

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870600

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Clear Cell Focus	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Prostate		Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 1-10		
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Dysplasia	Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 321

TRT#: 9

SEX: Male

DAY ON TEST: 711

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870601

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	* Thyroid Gland
Trachea	* Urinary Bladder		

MISSING

Mammary Gland

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
* Bone Marrow	Femoral	Leukemia Mononuclear	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-16			
Note: ATROPHY TGLs = 1-16			
* Heart		Degeneration	Chronic, Moderate
		Thrombosis	
* Kidney		Nephropathy	Chronic, Moderate
[ Nephropathy TGLS = 4-1 ]			
* Liver	Hepatocyte	Degeneration	Cystic, Moderate
	Bile Duct	Hyperplasia	Marked
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7-4			
Note: HYPERPLASIA TGLs = 8-15			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 9-7			

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 321

TRT#: 9

SEX: Male

DAY ON TEST: 711

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870601

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
Oral Mucosa	Buccal	Squamous Cell Papilloma	
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Stomach	Glandular	Pigmentation	Hemosiderin, Moderate
Note: PIGMENT	TGLs = 10-6		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 3-10		
* Thymus		Depletion Lymphoid	Marked
Tooth	Ameloblast, Incisor	Degeneration	Moderate
	Dentine, Incisor	Dysplasia	Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Note: [ DEGEN ]	TGLs = 6-9		

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

Animal Note: TGL2-10, TESTIS SIZE WITHIN NORMAL LIMITS

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 322

TRT#: 9

SEX: Male

DAY ON TEST: 661

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870602

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Nose	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland Note: PHEOCHROM BGN TGLs = 5-7	Bilateral, Medulla	Pheochromocytoma Benign	
* Kidney		Nephropathy	Chronic, Moderate
* Liver  Note: LEUKEMIA MONUC TGLs = 6-4	Bile Duct	Hyperplasia Leukemia Mononuclear Vacuolization Cytoplasmic	Marked  Marked
* Lung Lymph Node  Note: LEUKEMIA MONUC TGLs = 7-16,8-6	Mandibular Mediastinal Mesenteric Pancreatic	Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland Note: LEUKEMIA MONUC TGLs = 1-7	Pars Distalis	Leukemia Mononuclear	
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen  Note: FIBROSIS TGLs = 3-15 [ Fibrosis TGLS = 2-1 ]		Fibrosis Leukemia Mononuclear	Moderate
Stomach	Glandular	Necrosis	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 322	<b>TRT#:</b> 9	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 661
	<b>DOSE:</b> 175 PPM	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> 870602

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: NECROSIS	TGLs = 9-6			
* Testes		Interstit Cell	Adenoma	
		Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 4-10			
* Thymus			Depletion Lymphoid	Moderate

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**PRIMARY CAUSE OF DEATH** -

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 323

TRT#: 9

SEX: Male

DAY ON TEST: 729

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870603

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

MISSING

Seminal Vesicle

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-17		
Note: ATROPHY	TGLs = 1-17		
* Heart		Degeneration	Chronic, Mild
Intestine Small	Jejunum	Adenocarcinoma	
Note: ADENOCARC	TGLs = 3-15		
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Dilatation	Moderate
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-16		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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<b>ANIMAL ID:</b> 323	<b>TRT#:</b> 9 <b>DOSE:</b> 175 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 729 <b>HISTO:</b> 870603
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
* Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
<b>PRIMARY CAUSE OF DEATH</b>	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 324

TRT#: 9

SEX: Male

DAY ON TEST: 607

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870604

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Leukemia Mononuclear	
* Epididymis		Inflammation	Chronic Active, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 3-17			
* Nose	Mucosa	Inflammation	Acute, Moderate
* Preputial Gland		Carcinoma	
Note: CARCINOMA TGLs = 1-16			
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA AND PREPUTIAL GLAND TUMOR

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 324

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 607

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870604

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 325

TRT#: 9

SEX: Male

DAY ON TEST: 526

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870605

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
* Heart		Thrombosis	
Note: THROMBUS	TGLs = 7-4		
* Kidney		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-1		
* Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
Note: HDN	TGLs = 6-15		
Note: LEUKEMIA MONUC	TGLs = 5-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Mucosa	Inflammation	Acute, Mild
* Prostate		Inflammation	Chronic Active, Moderate
Seminal Vesicle		Atrophy	Mild
Note: ATROPHY	TGLs = 2-10		
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-1 ]			
* Testes	Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 1-10		
* Thymus		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 325

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 526

**DOSE:** 175 PPM

**DISP:** Natural Death

**HISTO:** 870605

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
<hr/>			
PRIMARY CAUSE OF DEATH	-		
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Animal Note: COD, LEUKEMIA MONONUCLEAR			
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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 326

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 184

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870606

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Pancreas  
Prostate  
Spleen  
Thymus  
Urinary Bladder

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Parathyroid Gland  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

Bone  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

Bone Marrow  
Heart  
Intestine Small - Duodenum  
Liver  
Nose  
Preputial Gland  
Skin  
Testes  
Trachea

**OBSERVATIONS**

Kidney  
Mammary Gland

Nephropathy  
Hyperplasia

Chronic, Minimal  
Cystic, Mild

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 327

TRT#: 9

SEX: Male

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870607

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Bilateral, Medulla	Pheochromocytoma Benign	
Bone	Cartilage, Joint, Tibia	Degeneration	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-1 ]			
* Liver	Hepatocyte	Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Hyperplasia	Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-4			
[ Hyperplasia TGLS = 4-15 ]			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 327

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 731

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870607

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 328

TRT#: 9

SEX: Male

DAY ON TEST: 645

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870608

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 4-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-6			
Mammary Gland		Hyperplasia	Cystic, Minimal
* Pancreas	Acinus	Atrophy	Moderate
		Leukemia Mononuclear	
* Preputial Gland		Inflammation	Chronic Active, Mild
Seminal Vesicle		Atrophy	Mild
Note: ATROPHY TGLs = 3-10			
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 328	<b>TRT#:</b> 9 <b>DOSE:</b> 175 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 645 <b>HISTO:</b> 870608
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**ORGAN AND ACCOUNTABLE SITE STATUS**

	Seminif Tub	Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
Note: ATROPHY      TGLs = 2-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Ameloblast, Incisor	Degeneration	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 329

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870609

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Preputial Gland  
Skin  
Testes  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
Lung  
Pancreas  
Prostate  
Spleen  
Thymus  
Urinary Bladder

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Parathyroid Gland  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

**OBSERVATIONS**

Heart  
Kidney  
Liver  
Mammary Gland

Degeneration  
Nephropathy  
Clear Cell Focus  
Hemorrhage

Chronic, Minimal  
Chronic, Minimal  
Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 330

TRT#: 9

SEX: Male

DAY ON TEST: 459

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870610

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thymus	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Minimal
Mammary Gland		Hyperplasia	Cystic, Minimal
Mesentery	Fat	Inflammation	Chronic Active, Mild
Note: INFLAMMATION TGLs = 1-15			
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 331

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 184

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870611

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Parathyroid Gland  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

Bone  
Esophagus  
Intestine Small - Duodenum  
Liver  
Mammary Gland  
Preputial Gland  
Skin  
Testes  
Trachea

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Nose  
Prostate  
Spleen  
Thymus  
Urinary Bladder

**OBSERVATIONS**

Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Minimal
Pancreas	Acinus	Atrophy	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 332

TRT#: 9

SEX: Male

DAY ON TEST: 726

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870612

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla Cortex	Pheochromocytoma Benign Vacuolization Cytoplasmic	Focal, Mild
Note: PHEOCHROM BGN TGLs = 6-7			
Bone	Tibia Tibia	Necrosis Osteosclerosis Degeneration Thrombosis	Focal, Moderate Mild Chronic, Moderate
* Heart			
Note: THROMBUS TGLs = 8-4			
* Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 5-1			
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Moderate
Note: LEUKEMIA MONUC TGLs = 4-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular Mesenteric	Leukemia Mononuclear Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 332

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870612

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Ameloblast, Incisor	Degeneration	Marked
	Incisor, Odontoblast	Degeneration	Moderate
	Dentine, Incisor	Dysplasia	Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

Note: [ DYSPLASIA ] TGLs = 11-9

Note: [ DEGEN ] TGLs = 11-9

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**PRIMARY CAUSE OF DEATH**

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

Animal Note: TGL3-10, TESTIS SIZE WITHIN NORMAL LIMITS

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 333

TRT#: 9

SEX: Male

DAY ON TEST: 726

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870613

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
Bone	Femur	Fibrous Osteodystrophy	Minimal
	Femur	Osteosclerosis	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-15		
Note: CATARACT	TGLs = 1-15		
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY	TGLs = 5-1		
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Parathyroid Gland		Adenoma	
* Pituitary Gland	Pars Distalis	Karyomegaly	Mild
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Spleen		Fibrosis	Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 333

TRT#: 9

SEX: Male

DAY ON TEST: 726

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870613

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: LEUKEMIA MONUC	TGLs = 3-16		Leukemia Mononuclear	
Note: FIBROSIS	TGLs = 7-17			
* Testes		Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10			
* Thymus			Depletion Lymphoid	Marked
Tooth		Ameloblast, Incisor	Degeneration	Marked
		Dentine, Incisor	Dysplasia	Moderate
		Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL4-10, SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 334

TRT#: 9

SEX: Male

DAY ON TEST: 501

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870614

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	* Thyroid Gland	Trachea
* Urinary Bladder			

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Leukemia Mononuclear	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung	Alveolar Epith	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
	Mucosa	Ulcer	Mild
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Prostate		Inflammation	Chronic Active, Minimal
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-1 ]			
Stomach	Glandular	Necrosis	Mild
Note: NECROSIS	TGLs = 3-15		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 334	<b>TRT#:</b> 9 <b>DOSE:</b> 175 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 501 <b>HISTO:</b> 870614
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
Note: ADENOMA      TGLs = 1-10			
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH	-
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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 335

TRT#: 9

SEX: Male

DAY ON TEST: 184

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870615

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Preputial Gland  
Skin  
Testes  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Prostate  
Spleen  
Thymus  
Urinary Bladder

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Pancreas  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

**MISSING**

Parathyroid Gland

**OBSERVATIONS**

Heart  
Kidney  
Mammary Gland

Degeneration  
Nephropathy  
Hyperplasia

Chronic, Minimal  
Chronic, Minimal  
Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 336

TRT#: 9

SEX: Male

DAY ON TEST: 729

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870616

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Marked
		Hyperplasia	Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5-5,5-7,6-6,7-2,8-15		
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 336

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870616

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LEUKEMIA MONUC TGLs = 1-1

\* Testes

Bilateral, Interstit Cell  
Interstit Cell

Adenoma  
Hyperplasia

Mild

Note: ADENOMA TGLs = 3-10

\* Thymus

Depletion Lymphoid

Moderate

Tooth

Dentine, Incisor  
Lower, Molar, Peridont Tiss  
Dentine, Incisor

Dysplasia  
Inflammation  
Necrosis

Minimal  
Suppurative, Chronic, Moderate  
Multifocal, Minimal

---

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: TGL4-10, TESTIS SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 337

TRT#: 9

SEX: Male

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870617

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Duodenum  
\* Nose  
Seminal Vesicle  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Parathyroid Gland  
Stomach - Forestomach

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Prostate  
Stomach - Glandular

\* Epididymis  
Intestine Large - Rectum  
\* Lung  
\* Salivary Glands  
Trachea

OBSERVATIONS

\* Adrenal Gland  
Bone  
\* Heart  
\* Islets, Pancreatic  
\* Kidney  
\* Liver

Medulla  
Tibia  
  
  
  
  
  
Bile Duct  
  
  
Mandibular  
Mediastinal  
Mesenteric

Hyperplasia  
Osteosclerosis  
Degeneration  
Adenoma  
Nephropathy  
Basophilic Focus  
Hepatodiaphragmatic Nodule  
Hyperplasia  
Leukemia Mononuclear  
  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear

Minimal  
Mild  
Chronic, Mild  
  
Chronic, Moderate  
  
Moderate

Note: HDN TGLs = 5-16

Lymph Node

Note: LEUKEMIA MONUC TGLs = 4-6

Mammary Gland

Mesentery

Note: INFLAMMATION TGLs = 3-15

\* Pancreas

\* Pituitary Gland

\* Preputial Gland

Skin

Note: SQ CL PAPILOM TGLs = 1-17

\* Spleen

Fat

Hyperplasia  
Inflammation

Cystic, Mild  
Chronic Active, Moderate

Atrophy  
Adenoma  
Inflammation  
Squamous Cell Papilloma

Mild  
  
Chronic Active, Mild

Leukemia Mononuclear

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 337

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 731

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870617

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes Note: ADENOMA      TGLs = 2-10	Bilateral, Interstit Cell	Adenoma	
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 338

TRT#: 9

SEX: Male

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870618

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Heart		Thrombosis	
[ Thrombosis TGLS = 7-17 ]			
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 6-1 ]			
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
[ Hyperplasia TGLS = 5-4 ]		Vacuolization Cytoplasmic	Mild
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 9-5			
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 2-15			
* Preputial Gland		Inflammation	Chronic Active, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 338

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 731

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870618

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Prostate		Dilatation	Mild
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 1-16,8-16 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 3-10		
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Dentine, Incisor	Dysplasia	Moderate
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: TGL4-10, TESTIS SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 339

TRT#: 9

SEX: Male

DAY ON TEST: 710

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870619

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	* Islets, Pancreatic	* Nose	* Pancreas
* Pituitary Gland	* Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Trachea	* Urinary Bladder		

MISSING

Intestine Small - Ileum

OBSERVATIONS

* Adrenal Gland	Medulla	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Mild
Intestine Small	Jejunum	Leiomyoma	
Note: LEIOMYOMA TGLs = 7-15			
* Kidney		Nephropathy	Chronic, Moderate
[ Nephropathy TGLS = 4-1 ]			
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 6-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-17,8-16,9-7,11-19			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Parathyroid Gland		Carcinoma	Metastatic (Thyroid Gland)
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 339

TRT#: 9

SEX: Male

DAY ON TEST: 710

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870619

ORGAN AND ACCOUNTABLE SITE STATUS

Skin		Papilloma	
Note: PAPILLOMA	TGLs = 12-21		
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-1,3-18 ]			
Stomach	Glandular	Necrosis	Mild
	Glandular	Pigmentation	Hemosiderin, Mild
Note: PIGMENT	TGLs = 14-6,14-20		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 1-10		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Carcinoma	
		Metaplasia	Osseous, Moderate
Note: CARCINOMA	TGLs = 10-7		
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Dentine, Incisor	Dysplasia	Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-10 SEMINAL VESICLE SIZE WITHIN NORMAL LIMIT

Animal Note: COD, LEUKEMIA MONONUCLEAR & SMALL INTESTINE TUMOR

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 340

TRT#: 9

SEX: Male

DAY ON TEST: 659

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870620

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Degeneration	Chronic, Moderate
* Kidney		Liposarcoma	
		Nephropathy	Chronic, Mild
[ Nephropathy TGLS = 4-16 ]			
* Liver	Bile Duct	Hyperplasia	Mild
		Necrosis	Moderate
Note: NECROSIS TGLs = 2-4			
Lymph Node	Renal	Angiectasis	Moderate
	Mesenteric	Congestion	Moderate
Note: [ ANGIECTASIS ] TGLs = 5-15			
Note: CONGESTION TGLs = 6-6			
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 3-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, TUMOR INVOLVING KIDNEY

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 341

TRT#: 9

SEX: Male

DAY ON TEST: 620

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870621

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Tissue NOS
Trachea	* Urinary Bladder		

MISSING

Lymph Node - Mesenteric	Mammary Gland
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OBSERVATIONS

* Kidney		Nephropathy	Chronic, Mild
* Liver		Vacuolization Cytoplasmic	Moderate
Lymph Node	Mandibular	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1-7			
Oral Mucosa	Gingival	Squamous Cell Carcinoma	
Note: [ SQUAM CEL CARC ] TGLs = 3-15			
* Preputial Gland	Duct	Cyst	
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10	Interstit Cell	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

Animal Note: TGL3-10 SEMINAL VESICLES WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 342

TRT#: 9

SEX: Male

DAY ON TEST: 602

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870622

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Preputial Gland  
Skin  
Trachea

Bone  
\* Heart  
Intestine Small - Duodenum  
\* Nose  
\* Prostate  
Stomach - Forestomach  
\* Urinary Bladder

\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Parathyroid Gland  
\* Salivary Glands  
Stomach - Glandular

\* Epididymis  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Pituitary Gland  
Seminal Vesicle  
\* Thyroid Gland

MISSING

Lymph Node - Mesenteric

\* Pancreas

\* Thymus

OBSERVATIONS

\* Adrenal Gland  
\* Bone Marrow  
\* Kidney

Medulla  
Femoral

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Nephropathy

Chronic, Mild

\* Liver  
\* Lung  
Lymph Node  
Mammary Gland  
\* Spleen

Mandibular

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Hyperplasia  
Leukemia Mononuclear

Cystic, Mild

[ Leukemia Mononuclear TGLS = 2-15 ]

\* Testes  
Note: ADENOMA TGLs = 1-10

Bilateral, Interstit Cell

Adenoma

Tooth  
Lower, Molar, Peridont Tiss  
Dentine, Incisor

Inflammation  
Necrosis

Suppurative, Chronic, Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 343

TRT#: 9

SEX: Male

DAY ON TEST: 190

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870623

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Preputial Gland  
Skin  
Testes  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Prostate  
Spleen  
Thymus  
Urinary Bladder

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Pancreas  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

**MISSING**

Parathyroid Gland

**OBSERVATIONS**

Heart  
Kidney  
Mammary Gland

Degeneration  
Nephropathy  
Hyperplasia

Chronic, Mild  
Chronic, Minimal  
Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 344

TRT#: 9

SEX: Male

DAY ON TEST: 729

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870624

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Harderian Gland	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla Cortex	Hyperplasia Vacuolization Cytoplasmic Degeneration	Moderate Focal, Mild Chronic, Moderate
* Heart		Nephropathy	Chronic, Marked
* Kidney Note: NEPHROPATHY TGLs = 3-17			
* Liver	Hepatocyte Bile Duct	Degeneration Hyperplasia Hyperplasia	Cystic, Mild Mild Cystic, Mild
Mammary Gland		Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Adenoma	
* Testes Note: ADENOMA TGLs = 1-15	Bilateral, Interstit Cell	Depletion Lymphoid	Mild
* Thymus	Follicular Cel	Adenoma	
* Thyroid Gland	Ameloblast, Incisor	Degeneration	Marked
Tooth	Incisor, Odontoblast	Degeneration	Moderate
	Dentine, Incisor	Dysplasia	Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL4-16, PALE LIVER FOCUS NOT APPARENT ON MICRO

Animal Note: TGL2-10, SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 344

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870624

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 345

TRT#: 9

SEX: Male

DAY ON TEST: 184

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870625

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Pancreas  
Prostate  
Spleen  
Thymus  
Urinary Bladder

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Parathyroid Gland  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

Bone  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

Bone Marrow  
Heart  
Intestine Small - Duodenum  
Liver  
Nose  
Preputial Gland  
Skin  
Testes  
Trachea

**OBSERVATIONS**

Kidney  
Mammary Gland

Nephropathy  
Hyperplasia

Chronic, Minimal  
Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 346

TRT#: 9

SEX: Male

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870626

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
	Cortex	Hypertrophy	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-15			
Note: ATROPHY TGLs = 1-15			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 5-1 ]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Moderate
Note: CLEAR CL FOCUS TGLs = 6-18,6-19			
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 3-17			
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland	Duct	Cyst	
		Inflammation	Chronic Active, Mild
* Spleen		Fibrosis	Moderate
[ Fibrosis TGLS = 4-16 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 346	<b>TRT#:</b> 9	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 175 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 870626

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	Follicular Cel	Hyperplasia	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 347

TRT#: 9

SEX: Male

DAY ON TEST: 460

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870627

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Trachea	* Urinary Bladder	

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Vacuolization Cytoplasmic	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Hyperplasia	Mild
Tooth	Peridont Tiss	Inflammation	Chronic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 348

TRT#: 9

SEX: Male

DAY ON TEST: 729

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870628

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-15			
Note: CATARACT TGLs = 1-15			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
Note: FIBROSIS TGLs = 6-16			
[ Fibrosis TGLS = 2-16 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 348

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870628

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA      TGLs = 3-10

\* Thymus

Depletion Lymphoid

Moderate

\* Thyroid Gland

C Cell

Adenoma

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: TGL4-10, SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 349

TRT#: 9

SEX: Male

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870629

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Minimal
	Medulla	Pheochromocytoma Benign	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-16		
Note: CATARACT	TGLs = 1-16		
* Heart		Degeneration	Chronic, Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Chronic, Marked
	[ Nephropathy TGLS = 6-1 ]		
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: HYPERPLASIA	TGLs = 9-15,10-15,11-15		
Note: CLEAR CL FOCUS	TGLs = 12-17		
Note: LEUKEMIA MONUC	TGLs = 3-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-7		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 349

TRT#: 9

SEX: Male

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870629

ORGAN AND ACCOUNTABLE SITE STATUS

Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Marked
	Mucosa	Inflammation	Chronic Active, Marked
* Pituitary Gland	Pars Distalis	Congestion	Moderate
Note: CONGESTION	TGLs = 8-7		
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-1 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	Follicular Cel	Adenoma	
	Follicle	Cyst	
Note: CYST	TGLs = 7-7		
Tooth	Ameloblast, Incisor	Degeneration	Mild
	Dentine, Incisor	Dysplasia	Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 350

TRT#: 9

SEX: Male

DAY ON TEST: 681

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870630

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	

MISSING

Seminal Vesicle

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
* Brain		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 9-5			
* Heart		Leukemia Mononuclear	
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
Note: LEUKEMIA MONUC TGLs = 5-4			
* Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6-2,6-3			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 7-15,8-18,10-17			
Mammary Gland		Hyperplasia	Cystic, Moderate
Peripheral Nerve	Sciatic	Degeneration	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Spinal Cord		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 350

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 681

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870630

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LEUKEMIA MONUC	TGLs = 3-16			
* Testes		Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 1-10			
* Thymus			Leukemia Mononuclear	
Tooth		Ameloblast, Incisor	Degeneration	Minimal
		Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked
		Dentine, Incisor	Necrosis	Multifocal, Minimal
* Urinary Bladder			Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-19			

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**PRIMARY CAUSE OF DEATH**

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

Animal Note: TGL2-10 TESTIS SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 351

TRT#: 9

SEX: Male

DAY ON TEST: 683

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870631

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
Lymph Node	Mandibular	Infiltration Cellular	Histiocyte, Moderate
Note: INFILTRAT CELL TGLs = 2-7			
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Marked
	Mucosa	Inflammation	Chronic Active, Marked
	Mucosa	Squamous Cell Carcinoma	
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 3-10			
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal
	Peridont Tiss	Squamous Cell Carcinoma	Metastatic (Uncertain Primary Site)

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 351

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 683

**DOSE:** 175 PPM

**DISP:** Natural Death

**HISTO:** 870631

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: COD NASAL TUMOR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 352

TRT#: 9

SEX: Male

DAY ON TEST: 729

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870632

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Seminal Vesicle
* Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Moderate
	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Heart		Degeneration	Chronic, Mild
* Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Marked
	[ Nephropathy TGLS = 6-1 ]		
* Liver	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 5-17			
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Mild
Skin	Subcut Tiss	Inflammation	Chronic Active, Marked
	Subcut Tiss	Osteosarcoma	
Note: INFLAMMATION TGLs = 2-15			
Note: OSTEOSARC TGLs = 1-18			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA TGLs = 3-10			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 352

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870632

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Dentine, Incisor	Dysplasia	Mild
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked
	Dentine, Incisor	Necrosis	Multifocal, Mild

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**PRIMARY CAUSE OF DEATH**

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Animal Note: TGL4-10, TESTIS SIZE WITHIN NORMAL LIMITS

Animal Note: TGL7-10, SEMINAL VESICLES WITHIN NORMAL LIMITS

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: TGL8-16, NO LIVER FOCUS APPARENT ON MICRO

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 353

TRT#: 9

SEX: Male

DAY ON TEST: 388

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870633

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

Bone Note: OSTEOSARC TGLs = 2-17	Vertebra	Osteosarcoma	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery Note: INFLAMMATION TGLs = 1-14	Fat	Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
Spinal Cord		Osteosarcoma	Metastatic (Bone)
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO BONE AND SPINAL CORD TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 354

TRT#: 9

SEX: Male

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870634

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mesenteric	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hepatodiaphragmatic Nodule	
		Hyperplasia	Marked
		Leukemia Mononuclear	
Note: HDN TGLs = 5-4			
Note: LEUKEMIA MONUC TGLs = 4-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-7			
Mammary Gland		Hyperplasia	Cystic, Minimal
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Inflammation	Chronic Active, Moderate
Skin		Squamous Cell Papilloma	
Note: SQ CL PAPILOM TGLs = 1-15			
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
Note: FIBROSIS TGLs = 7-16			
[ Fibrosis TGLS = 6-16 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 354	<b>TRT#:</b> 9	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 175 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 870634

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA	TGLs = 3-10		
* Thymus		Depletion Lymphoid	Mild
Tooth	Ameloblast, Incisor	Degeneration	Mild
	Dentine, Incisor	Dysplasia	Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: TGL8-17, NO ADHESION APPARENT ON MICRO

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 355	<b>TRT#:</b> 9	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 184
	<b>DOSE:</b> 175 PPM	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> 870635

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Liver	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Pancreas	Parathyroid Gland
Pituitary Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Tooth	Trachea	Urinary Bladder	

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**OBSERVATIONS**

Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Acute, Moderate

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 356

TRT#: 9

SEX: Male

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870636

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Seminal Vesicle	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney	Renal Tubule	Adenoma	
		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-1 ]			
* Liver	Hepatocyte	Degeneration	Cystic, Mild
		Eosinophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Dilatation	Moderate
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Marked
Tooth	Ameloblast, Incisor	Degeneration	Mild
	Dentine, Incisor	Dysplasia	Mild
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 356

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 732

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870636

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Animal Note: TGL4-10, SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 357

TRT#: 9

SEX: Male

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870637

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Note: PHEOCHROM BGN TGLs = 2-7			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland	Duct	Hemorrhage	Moderate
		Hyperplasia	Cystic, Mild
Note: HEMORRHAGE TGLs = 6-16			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Minimal
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1-17			
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-15 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 5-10			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 357

**TRT#:** 9  
**DOSE:** 175 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 732  
**HISTO:** 870637

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

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Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 358

TRT#: 9

SEX: Male

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870638

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Moderate
	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-1 ]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 3-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Marked
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Dentine, Incisor	Dysplasia	Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

---

**ANIMAL ID:** 358

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 732

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870638

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: TGL4-10, SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 359

TRT#: 9

SEX: Male

DAY ON TEST: 729

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870639

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Note: PHEOCHROM BGN TGLs = 7-7			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver		Angiectasis	Moderate
	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Marked
		Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 8-16		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-4			
Note: DEGEN TGLs = 9-4			
Note: ANGIECTASIS TGLs = 8-16			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-5,5-7,6-6			
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 359	<b>TRT#:</b> 9	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> 175 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 870639

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Skin		Keratoacanthoma	
Note: KERATOACANTHMA	TGLs = 1-17		
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-15 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 4-10		
* Thymus		Depletion Lymphoid	Mild
Tooth	Ameloblast, Incisor	Degeneration	Moderate
	Dentine, Incisor	Dysplasia	Mild
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 360

TRT#: 9

SEX: Male

DAY ON TEST: 522

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870640

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
* Lung	Mediastinum	Thymoma Malignant	Metastatic (Thymus)
Note: THYMOMA MAL TGLs = 6-15			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Skeletal Muscle	Diaphragm	Thymoma Malignant	Metastatic (Thymus)
Note: THYMOMA MAL TGLs = 4-17			
* Testes	Seminif Tub	Atrophy	Mild
	Interstit Cell	Hyperplasia	Mild
Note: ATROPHY TGLs = 2-10			
* Thymus		Thymoma Malignant	
Note: THYMOMA MAL TGLs = 3-16			
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, MALIGNANT THYMOMA

Animal Note: ONLY DUCTS

Animal Note: TGL5-2, NOT SEEN ON MICRO

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 360

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 522

**DOSE:** 175 PPM

**DISP:** Natural Death

**HISTO:** 870640

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: TGL1-10, NO UNUSUAL NODULE SEEN ON MICRO,

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

**ANIMAL ID:** 361

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 184

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870641

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Parathyroid Gland  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

Bone  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Preputial Gland  
Skin  
Testes  
Trachea

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Pancreas  
Prostate  
Spleen  
Thymus  
Urinary Bladder

**OBSERVATIONS**

Heart  
Kidney  
Mammary Gland

Degeneration  
Nephropathy  
Hyperplasia

Chronic, Minimal  
Chronic, Minimal  
Cystic, Mild

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 362

TRT#: 9

SEX: Male

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870642

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-15			
Note: ATROPHY TGLs = 1-15			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-4			
Note: HYPERPLASIA TGLs = 7-4,8-7			
* Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6-2,6-3			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-7			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 362	<b>TRT#:</b> 9	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 175 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 870642

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Spleen [ Leukemia Mononuclear TGLS = 3-16 ]		Leukemia Mononuclear	
* Testes Note: ADENOMA TGLs = 4-10	Bilateral, Interstit Cell	Adenoma	
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Carcinoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

---

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH,CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 363

TRT#: 9

SEX: Male

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870643

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Nose  
\* Prostate  
Stomach - Forestomach  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Pancreas  
\* Salivary Glands  
Stomach - Glandular

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Parathyroid Gland  
Seminal Vesicle  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Mammary Gland  
\* Preputial Gland  
Skin  
Trachea

MISSING

Lymph Node - Mesenteric

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver

Degeneration  
Nephropathy  
Basophilic Focus  
Clear Cell Focus  
Degeneration  
Hepatodiaphragmatic Nodule  
Hyperplasia  
Leukemia Mononuclear

Chronic, Mild  
Chronic, Moderate

Hepatocyte

Degeneration  
Hepatodiaphragmatic Nodule  
Hyperplasia  
Leukemia Mononuclear

Cystic, Mild

Bile Duct

Hyperplasia  
Leukemia Mononuclear

Mild

Note: HDN TGLs = 3-15

Lymph Node

Mandibular  
Mediastinal

Leukemia Mononuclear  
Leukemia Mononuclear

Chronic Active, Moderate

Mesentery

Note: INFLAMMATION TGLs = 2-16

Fat

Inflammation

\* Pituitary Gland

Pars Intermed

Cyst

\* Spleen

Leukemia Mononuclear

\* Testes

Bilateral, Interstit Cell

Adenoma

Note: ADENOMA TGLs = 1-10

\* Thymus

Depletion Lymphoid

Mild

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 363

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 732

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870643

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL4-7, PITUITARY FOCUS NOT APPARENT ON MICRO

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 364

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870644

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Brain	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Nose
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Moderate
	Medulla	Pheochromocytoma Benign	
* Bone Marrow	Femoral	Leukemia Mononuclear	
Harderian Gland			
Note: 82			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 7-1 ]			
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4-5,4-7,5-15,8-18,9-16,10-19			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 364

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870644

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Preputial Gland		Inflammation	Chronic Active, Moderate
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
	[ Fibrosis TGLS = 3-17 ]		
	[ Leukemia Mononuclear TGLS = 2-17 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 1-10		
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	Follicle	Cyst	
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Dentine, Incisor	Dysplasia	Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 365

TRT#: 9

SEX: Male

DAY ON TEST: 614

DOSE: 175 PPM

DISP: Natural Death

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Leukemia Mononuclear	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Islets, Pancreatic		Adenoma	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
* Liver		Histiocytic Sarcoma	Multiple
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: HISTIO SARC TGLs = 3-15,8-17,9-15			
* Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-2,5-3,10-2,10-3			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6-2,11-16			
Mammary Gland		Hyperplasia	Cystic, Marked
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 7-7			
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 365

TRT#: 9

SEX: Male

DAY ON TEST: 614

DOSE: 175 PPM

DISP: Natural Death

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Leukemia Mononuclear TGLS = 1-16 ]

* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Ameloblast, Incisor	Degeneration	Minimal
	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL4-4, FOCUS NOT APPARENT ON MICRO

Animal Note: TGL2-10, TESTIS TUMOR IS UNILATERAL

Animal Note: COD LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 366

TRT#: 9

SEX: Male

DAY ON TEST: 664

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870646

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 4-7			
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-1			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10,2-10			
* Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 366

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 664

**DOSE:** 175 PPM

**DISP:** Natural Death

**HISTO:** 870646

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 367

TRT#: 9

SEX: Male

DAY ON TEST: 681

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870647

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Brain	Meninges	Carcinoma	Metastatic (Zymbal'S Gland)
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Marked
Note: CATARACT	TGLs = 6-15		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Hyperplasia	Moderate
Note: HYPERPLASIA	TGLs = 8-4		
* Lung		Carcinoma	Metastatic (Zymbal'S Gland)
Note: CARCINOMA	TGLs = 7-3		
Lymph Node	Mandibular	Angiectasis	Mild
Note: ANGIECTASIS	TGLs = 1-7		
Mammary Gland		Hyperplasia	Cystic, Mild
Stomach	Glandular	Mineralization	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Zymbal's Gland		Carcinoma	
Note: CARCINOMA	TGLs = 5-16		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 367

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 681

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870647

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: MORIBUND SAC DUE TO ZYMBALS GLAND TUMOR

Animal Note: TGL4-1, SPLEEN WITHIN NORMAL LIMITS, NCL

Animal Note: TGL3-10, TESTIS SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 368

TRT#: 9

SEX: Male

DAY ON TEST: 544

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870648

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
Skin	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC	TGLs = 4-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5-18,6-16		
Mammary Gland		Hyperplasia	Cystic, Mild
Seminal Vesicle		Atrophy	Mild
Note: ATROPHY	TGLs = 2-10		
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear	TGLS = 3-15 ]		
Stomach	Glandular	Necrosis	Mild
	Forestomach	Ulcer	Mild
Note: ULCER	TGLs = 7-17		
Note: NECROSIS	TGLs = 8-6,8-17		

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 368	<b>TRT#:</b> 9 <b>DOSE:</b> 175 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 544 <b>HISTO:</b> 870648
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
Note: ADENOMA      TGLs = 1-10			
* Thymus		Leukemia Mononuclear	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 369

TRT#: 9

SEX: Male

DAY ON TEST: 695

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Epididymis	Esophagus
* Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
* Islets, Pancreatic		Carcinoma	
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 8-4		
* Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5-2,5-3		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 1-5,1-7,4-2,7-16,9-6		
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Leukemia Mononuclear	
Note: LEUKEMIA MONO	TGLs = 6-7		
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-15		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 369

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 695

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes Note: ADENOMA      TGLs = 3-10	Bilateral, Interstit Cell	Adenoma	
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Mild Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL10-6, BLACK PIGMENT NOT APPARENT ON MICRO

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 370

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870650

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
Bone	Humerus	Osteosarcoma	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Mild
Note: INFLAMMATION TGLs = 2-16			
* Pancreas	Artery	Inflammation	Chronic Active, Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 3-10,4-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Marked

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL5-17, LIVER FOCUS NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 370

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870650

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 371

TRT#: 9

SEX: Male

DAY ON TEST: 389

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870651

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Testes	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-5		
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6-4		
* Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-2,3-3		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Minimal
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-15 ]			

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL1-14, THE EAR IS WITHIN NORMAL LIMITS ON MICRO

Animal Note: CAUSE OF DEATH IS MONONUCLEAR LEUKEMIA

Animal Note: TGL2-10, PIGMENT NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 372

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870652

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
Skin  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Jejunum  
\* Nose  
\* Spleen  
\* Urinary Bladder

\* Brain  
Intestine Large - Colon  
\* Lung  
\* Salivary Glands  
Stomach - Forestomach

\* Epididymis  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
Seminal Vesicle  
Stomach - Glandular

MISSING

Mammary Gland

\* Parathyroid Gland

OBSERVATIONS

\* Adrenal Gland  
Note: PHEOCHROM BGN TGLs = 5-7

Bilateral, Medulla

Pheochromocytoma Benign

Bone  
Eye  
Note: ATROPHY TGLs = 1-15  
Note: CATARACT TGLs = 1-15

Cartilage, Humerus, Joint  
Retina  
Lens

Degeneration  
Atrophy  
Cataract

Focal, Mild  
Marked  
Moderate

\* Heart  
Intestine Large  
\* Islets, Pancreatic  
\* Kidney  
\* Liver  
Mesentery  
Note: INFLAMMATION TGLs = 3-16

Muscularis, Rectum

Degeneration  
Inflammation  
Adenoma  
Nephropathy  
Hyperplasia  
Vacuolization Cytoplasmic  
Inflammation

Chronic, Mild  
Chronic Active, Moderate  
Chronic, Marked  
Moderate  
Minimal  
Chronic Active, Moderate

\* Pancreas  
\* Pituitary Gland  
Note: ADENOMA TGLs = 4-7

Acinus  
Pars Distalis  
Pars Distalis

Atrophy  
Adenoma  
Congestion

Mild  
Moderate

\* Preputial Gland  
\* Prostate

Inflammation  
Inflammation

Chronic Active, Mild  
Chronic Active, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 372	<b>TRT#:</b> 9 <b>DOSE:</b> 175 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b> 870652
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Mild

---

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-10, SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 373

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870653

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY	TGLs = 1-1		
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Prostate		Inflammation	Chronic Active, Mild
* Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 2-10		
Note: ATROPHY	TGLs = 3-10		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 374

TRT#: 9

SEX: Male

DAY ON TEST: 459

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870654

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Minimal
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 1-15			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Note: HYPERPLASIA TGLs = 2-7			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Tooth	Molar, Peridont Tiss	Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 375

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870655

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Minimal
Bone	Thoracic, Vertebra	Fibrous Osteodystrophy	Minimal
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-15		
Note: CATARACT	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 5-1 ]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION	TGLs = 4-17		
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Preputial Gland		Inflammation	Chronic Active, Moderate
Skin	Subcut Tiss	Inflammation	Chronic Active, Mild
	Subcut Tiss	Metaplasia	Osseous, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 375	<b>TRT#:</b> 9	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 733
	<b>DOSE:</b> 175 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 870655

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: INFLAMMATION	TGLs = 2-16		
Note: METAPL	TGLs = 2-16		
* Spleen		Leukemia Mononuclear	
* Testes		Adenoma	
Note: ADENOMA	TGLs = 3-10		
* Thymus		Depletion Lymphoid	Minimal
Tooth	Dentine, Incisor	Necrosis	Multifocal, Mild

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: TGL6-18, NO STOMACH LESION APPARENT ON MICRO

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 376

TRT#: 9

SEX: Male

DAY ON TEST: 718

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870656

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver	Hepatocyte	Basophilic Focus	
		Degeneration	Cystic, Mild
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA TGLs = 3-16			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hemorrhage	Moderate
Note: HEMORRHAGE TGLs = 4-7			
* Preputial Gland		Adenoma	
		Inflammation	Chronic Active, Moderate
* Spleen		Hematopoietic Cell Proliferation	Mild
Note: HEMA CELL PROL TGLs = 2-15			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 376

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 718

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870656

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: MORIBUND SAC DUE TO MAMMARY MASS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 377

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870657

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Epididymis
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Medulla	Leukemia Mononuclear	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-7,5-2,6-6			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Congestion	Mild
	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[ Fibrosis TGLS = 4-15 ]			
[ Leukemia Mononuclear TGLS = 2-1 ]			
* Testes	Bilateral, Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 7-10			
* Thymus		Depletion Lymphoid	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 377

**TRT#:** 9  
**DOSE:** 175 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 733  
**HISTO:** 870657

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Minimal
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**PRIMARY CAUSE OF DEATH**

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 378

TRT#: 9

SEX: Male

DAY ON TEST: 718

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870658

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Epididymis	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
Note: PHEOCHROM BGN TGLs = 6-7			
Bone	Humerus	Fibrous Osteodystrophy	Mild
	Mandible	Fibrous Osteodystrophy	Mild
	Maxilla	Fibrous Osteodystrophy	Multifocal, Mild
	Thoracic, Vertebra	Fibrous Osteodystrophy	Mild
	Tibia	Fibrous Osteodystrophy	Minimal
* Brain	Vein	Thrombosis	
Eye	Retina	Atrophy	Mild
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-15			
Note: CATARACT TGLs = 1-15			
* Heart	Atrium	Degeneration Dilatation	Chronic, Moderate Moderate
Note: DILATATION TGLs = 4-17			
* Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 5-1 ]			
* Liver	Hepatocyte	Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-4			
* Lung	Alveolar Epith	Hyperplasia Leukemia Mononuclear	Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 378

TRT#: 9

SEX: Male

DAY ON TEST: 718

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870658

ORGAN AND ACCOUNTABLE SITE STATUS

[ Leukemia Mononuclear TGLS = 12-2 ]

Lymph Node

Mandibular  
Mediastinal  
Mesenteric

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 9-2,10-7

Mammary Gland

Hyperplasia

Cystic, Moderate

\* Pituitary Gland

Pars Distalis  
Pars Distalis

Cyst

Minimal

\* Preputial Gland

Duct

Cyst

Inflammation

Chronic Active, Mild

\* Spleen

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 2-16

\* Testes

Bilateral, Interstit Cell  
Seminif Tub

Adenoma  
Atrophy

Mild

Note: ATROPHY TGLs = 7-10

Note: ADENOMA TGLs = 8-10

\* Thymus

Depletion Lymphoid

Moderate

\* Thyroid Gland

C Cell

Adenoma

Tooth

Ameloblast, Incisor  
Incisor, Odontoblast  
Dentine, Incisor  
Lower, Molar, Peridont Tiss  
Dentine, Incisor

Degeneration  
Degeneration  
Dysplasia  
Inflammation  
Necrosis

Marked  
Mild  
Moderate  
Suppurative, Chronic, Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 379

TRT#: 9

SEX: Male

DAY ON TEST: 655

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870659

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	* Nose	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Angiectasis	Marked
	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: ANGIECTASIS TGLs = 3-16			
Note: LEUKEMIA MONUC TGLs = 2-4			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1-7			
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 7-15			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen		Hemangioma	
		Leukemia Mononuclear	
Note: HEMANGIOMA TGLs = 6-17			
Note: LEUKEMIA MONUC TGLs = 6-1,6-17			
* Testes	Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 379

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 655

**DOSE:** 175 PPM

**DISP:** Natural Death

**HISTO:** 870659

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA      TGLs = 5-10

\* Thymus

Tooth

Lower, Molar, Peridont Tiss

Dentine, Incisor

Depletion Lymphoid

Inflammation

Necrosis

Moderate

Suppurative, Chronic, Marked

Multifocal, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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Animal Note: TGL8-2, PIGMENT NOT APPARENT ON MICRO

Animal Note: TGL9-6, BLACK PIGMENT NOT APPARENT ON MICRO

Animal Note: TGL4-10, TESTIS SIZE WITHIN NORMAL LIMITS

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 380

TRT#: 9

SEX: Male

DAY ON TEST: 683

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870660

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Skin	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-7			
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 4-15			
* Nose		Leukemia Mononuclear	
* Preputial Gland		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
Stomach	Forestomach	Acanthosis	Mild
* Testes	Interstitial Cell	Adenoma	
	Seminif Tub	Atrophy	Mild
	Interstitial Cell	Hyperplasia	Mild
Note: ATROPHY TGLs = 2-10			
Note: ADENOMA TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 380

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 683

**DOSE:** 175 PPM

**DISP:** Natural Death

**HISTO:** 870660

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth

Incisor, Peridont Tiss  
Dentine, Incisor

Inflammation  
Necrosis

Suppurative, Mild  
Multifocal, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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Animal Note: COD LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 381

TRT#: 9

SEX: Male

DAY ON TEST: 282

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870661

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Pancreas  
\* Prostate  
\* Spleen  
\* Thyroid Gland

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Parathyroid Gland  
\* Salivary Glands  
Stomach - Forestomach  
Tooth

Bone  
Esophagus  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
\* Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Nose  
\* Preputial Gland  
Skin  
\* Testes  
\* Urinary Bladder

**MISSING**

Lymph Node - Mesenteric

Mammary Gland

\* Thymus

**OBSERVATIONS**

\* Heart

Degeneration  
Hemangiosarcoma

Chronic, Mild

Note: HEMANGIOSARC TGLs = 1-14

\* Kidney

Renal Tubule

Necrosis  
Nephropathy  
Vacuolization Cytoplasmic

Acute, Multifocal, Mild  
Chronic, Minimal

\* Liver

\* Lung

Pleura

Hyperplasia

Mild  
Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO TUMOR ON HEART

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 382

TRT#: 9

SEX: Male

DAY ON TEST: 460

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870662

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	Seminal Vesicle	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
		Vacuolization Cytoplasmic	Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Adenoma	
		Inflammation	Chronic Active, Moderate
Note: ADENOMA TGLs = 1-10			
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 383

TRT#: 9

SEX: Male

DAY ON TEST: 460

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870663

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Epididymis	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	Seminal Vesicle	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Testes	* Thymus
Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Inflammation	Chronic Active, Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Inflammation	Chronic Active, Moderate
		Metaplasia	Squamous, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 1-7		
* Preputial Gland		Inflammation	Chronic Active, Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Dentine, Incisor	Dysplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 384

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870664

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Epididymis
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
	Medulla	Pheochromocytoma Benign	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-20		
Note: CATARACT	TGLs = 1-20		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
	[ Nephropathy TGLS = 7-1 ]		
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Mixed Cell Focus	
Note: [ MIXED CL FOCUS ]	TGLs = 8-16		
	[ Hyperplasia TGLS = 9-17 ]		
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA	TGLs = 3-18		
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Adenoma	
	Duct	Cyst	
		Inflammation	Chronic Active, Mild
Note: CYST	TGLs = 2-19		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 384

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870664

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen			Fibrosis	Mild
			Leukemia Mononuclear	
Note: FIBROSIS	TGLs = 6-15			
* Testes		Bilateral, Interstit Cell	Adenoma	
		Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 4-10			
* Thymus			Depletion Lymphoid	Marked
Tooth		Ameloblast, Incisor	Degeneration	Marked
		Dentine, Incisor	Dysplasia	Minimal
		Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
		Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL8-16, ONLY ONE LIVER FOCUS APPARENT ON MICRO

Animal Note: TGL5-10, TESTIS SIZE WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 385

TRT#: 9

SEX: Male

DAY ON TEST: 671

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870665

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Pancreas  
Stomach - Glandular

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Trachea

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Salivary Glands

\* Epididymis  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Spleen

OBSERVATIONS

\* Adrenal Gland  
Bone  
Note: [ OSTEOSARC ] TGLs = 12-19  
\* Heart  
\* Kidney  
Note: NEPHROPATHY TGLs = 3-1  
\* Liver  
Note: NECROSIS TGLs = 5-15  
Lymph Node  
Note: CONGESTION TGLs = 13-15  
Mammary Gland  
Note: [ HYPERPLASIA ] TGLs = 14-10  
\* Pituitary Gland  
Note: ADENOMA TGLs = 1-7  
\* Preputial Gland  
\* Prostate  
Seminal Vesicle  
Note: INFLAMMATION TGLs = 7-10  
Skin  
Note: OSTEOSARC TGLs = 12-17  
Stomach

Medulla  
Vertebra  
  
  
  
  
  
Bile Duct  
  
  
Renal  
  
  
Pars Distalis  
  
  
  
  
Subcut Tiss  
Forestomach

Hyperplasia  
Osteosarcoma  
  
Degeneration  
Nephropathy  
  
Basophilic Focus  
Hyperplasia  
Necrosis  
  
Congestion  
  
Hyperplasia  
  
Adenoma  
  
Inflammation  
Inflammation  
Inflammation  
  
Osteosarcoma  
  
Acanthosis

Mild  
  
  
Chronic, Minimal  
Chronic, Marked  
  
Moderate  
Moderate  
  
Mild  
  
Cystic, Marked  
  
  
  
Chronic Active, Mild  
Chronic Active, Marked  
Chronic Active, Marked  
  
Metastatic (Bone)  
  
Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 385

TRT#: 9

SEX: Male

DAY ON TEST: 671

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870665

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Forestomach	Inflammation	Chronic Active, Moderate
	Forestomach	Ulcer	Moderate
Note: ULCER	TGLs = 4-6		
* Testes	Interstit Cell	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Dentine, Incisor	Dysplasia	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal
* Urinary Bladder	Mucosa	Hyperplasia	Moderate
Note: HYPERPLASIA	TGLs = 6-18		

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL8-6,9-6,10-6, LARGE INTESTINE WITHIN NORMAL LIMITS

Animal Note: TGL2-4, HEART SIZE WITHIN NORMAL LIMITS

Animal Note: MORIBUND SAC DUE TO BONE TUMOR

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 386

TRT#: 9

SEX: Male

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870666

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	Seminal Vesicle
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Marked
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-4		
Note: HYPERPLASIA	TGLs = 6-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Preputial Gland	Duct	Cyst	
		Inflammation	Chronic Active, Mild
Skin		Keratoacanthoma	
Note: KERATOACANTHMA	TGLs = 1-16		
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 2-15 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 4-10		
* Thymus		Depletion Lymphoid	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 386

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870666

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**ORGAN AND ACCOUNTABLE SITE STATUS**

\* Thyroid Gland

Follicular Cel

Carcinoma

Note: CARCINOMA

TGLs = 7-7

Tooth

Lower, Molar, Peridont Tiss

Inflammation

Suppurative, Chronic, Mild

Dentine, Incisor

Necrosis

Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CS F2 GRANULES PRESENT

Animal Note: TGL5-10, SEMINAL VESICLE SIZE WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 387

TRT#: 9

SEX: Male

DAY ON TEST: 646

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870667

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Seminal Vesicle	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Bilateral, Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Serosa	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
Note: FIBROSIS TGLs = 3-15			
Lymph Node	Mandibular	Angiectasis	Mild
	Mesenteric	Angiectasis	Mild
Note: ANGIECTASIS TGLs = 4-7,5-6			
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Adenoma	
Note: ADENOMA TGLs = 1-16			
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA TGLs = 2-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO PREPUTIAL GLAND TUMOR

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 388

TRT#: 9

SEX: Male

DAY ON TEST: 729

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870668

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Marked
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-2,4-6,6-15,7-16		
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION	TGLs = 8-17		
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Minimal
Skin	Subcut Tiss	Fibroma	
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 388	<b>TRT#:</b> 9	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> 175 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 870668

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Leukemia Mononuclear TGLS = 1-1 ]

* Testes Note: ADENOMA TGLs = 5-10	Bilateral, Interstit Cell	Adenoma	
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Tooth	Dentine, Incisor	Dysplasia	Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 389

TRT#: 9

SEX: Male

DAY ON TEST: 184

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870669

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

Adrenal Gland - Medulla  
Epididymis  
Intestine Small - Duodenum  
Liver  
Nose  
Preputial Gland  
Skin  
Testes  
Trachea

Bone  
Esophagus  
Intestine Small - Ileum  
Lung  
Pancreas  
Prostate  
Spleen  
Thymus  
Urinary Bladder

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Parathyroid Gland  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

**OBSERVATIONS**

Heart  
Intestine Large  
Kidney  
Mammary Gland

Rectum

Degeneration  
Parasite Metazoan  
Nephropathy  
Hyperplasia

Chronic, Mild  
  
Chronic, Minimal  
Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 390

TRT#: 9

SEX: Male

DAY ON TEST: 460

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870670

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Tooth

\* Adrenal Gland - Medulla  
\* Epididymis  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Nose  
\* Preputial Gland  
Skin  
\* Thymus  
Trachea

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Pancreas  
\* Prostate  
\* Spleen  
\* Thyroid Gland  
\* Urinary Bladder

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
\* Salivary Glands  
Stomach - Forestomach  
Tissue NOS

OBSERVATIONS

\* Kidney  
\* Liver  
  
\* Lung  
Mammary Gland  
\* Testes

Bile Duct  
  
  
  
Interstit Cell

Nephropathy  
Hyperplasia  
Vacuolization Cytoplasmic  
Alveolar/Bronchiolar Adenoma  
Hyperplasia  
Hyperplasia

Chronic, Mild  
Moderate  
Moderate  
  
Cystic, Mild  
Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 391

TRT#: 2

SEX: Female

DAY ON TEST: 460

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870371

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

**OBSERVATIONS**

Bone  
\* Heart  
\* Kidney  
\* Liver  
Uterus

Mandible  
  
Bile Duct  
Endometrium

Fibrous Osteodystrophy  
Degeneration  
Nephropathy  
Hyperplasia  
Hyperplasia

Mild  
Chronic, Minimal  
Chronic, Minimal  
Minimal  
Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 392

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870372

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thyroid Gland

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
Trachea

Bone  
\* Heart  
Intestine Small - Duodenum  
\* Kidney  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Uterus

**MISSING**

\* Clitoral Gland

**OBSERVATIONS**

\* Liver  
Mammary Gland

Basophilic Focus  
Fibroadenoma  
Hyperplasia

Cystic, Moderate

Note: FIBROADENOMA TGLs = 1-14

\* Thymus  
Tooth

Lower, Molar, Peridont Tiss  
Dentine, Incisor

Depletion Lymphoid  
Inflammation  
Necrosis

Marked  
Suppurative, Chronic, Marked  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 393

TRT#: 2

SEX: Female

DAY ON TEST: 184

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870373

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
 \* Brain  
 Intestine Large - Cecum  
 Intestine Small - Ileum  
 \* Lung  
 \* Nose  
 \* Salivary Glands  
 Stomach - Glandular  
 Trachea

\* Adrenal Gland - Medulla  
 \* Clitoral Gland  
 Intestine Large - Colon  
 Intestine Small - Jejunum  
 Lymph Node - Mandibular  
 \* Ovary  
 Skin  
 \* Thymus  
 \* Urinary Bladder

Bone  
 Esophagus  
 Intestine Large - Rectum  
 \* Islets, Pancreatic  
 Lymph Node - Mesenteric  
 \* Pancreas  
 \* Spleen  
 \* Thyroid Gland  
 Uterus

\* Bone Marrow  
 \* Heart  
 Intestine Small - Duodenum  
 \* Liver  
 Mammary Gland  
 \* Parathyroid Gland  
 Stomach - Forestomach  
 Tooth

OBSERVATIONS

* Kidney	Renal Tubule	Mineralization	Mild
		Nephropathy	Chronic, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 394

TRT#: 2

SEX: Female

DAY ON TEST: 509

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870374

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
\* Ovary  
\* Salivary Glands  
\* Thymus

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Pancreas  
Skin  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Parathyroid Gland  
\* Spleen  
Trachea

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Stomach - Forestomach  
\* Urinary Bladder

OBSERVATIONS

Mammary Gland

Hyperplasia  
Mineralization

Cystic, Mild  
Mild

\* Nose

Mucosa  
Mucosa

Inflammation  
Ulcer

Acute, Mild  
Mild

Stomach

Glandular

Mineralization

Moderate

Tooth

Lower, Molar, Peridont Tiss

Inflammation

Suppurative, Chronic, Mild

Uterus

Polyp Stromal

Note: POLYP STROMAL TGLs = 1-14

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, UTERINE MASS

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 395

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870375

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

**OBSERVATIONS**

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 396

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 870376

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-15			
Note: CATARACT TGLs = 1-15			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Chronic Active, Mild
Note: BASOPH FOCUS TGLs = 4-14			
Note: HDN TGLs = 3-14			
Mammary Gland		Hyperplasia	Cystic, Marked
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hemorrhage	Moderate
Note: ADENOMA TGLs = 2-7			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 397

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 870377

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
Skin  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Spleen  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Stomach - Forestomach  
Uterus

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular

OBSERVATIONS

\* Adrenal Gland Cortex  
Note: 1991 CONVERSION DISCREPANCY. ORIGINAL DIAGNOSIS SITE NOT SPECIFIED.

Accessory Adrenal Cortical Nodule

\* Heart Degeneration  
\* Kidney Nephropathy  
\* Liver Basophilic Focus  
Hepatodiaphragmatic Nodule  
Inflammation

Chronic, Minimal  
Chronic, Mild  
Chronic Active, Moderate

Note: HDN TGLs = 3-14

Mammary Gland

Fibroadenoma  
Hyperplasia

Cystic, Marked

Note: FIBROADENOMA TGLs = 2-15

Note: HYPERPLASIA TGLs = 1-16

\* Pancreas Artery  
\* Pituitary Gland Pars Distalis  
Pars Distalis

Inflammation  
Adenoma  
Congestion

Chronic Active, Mild  
Minimal

Note: ADENOMA TGLs = 4-7

\* Thymus  
\* Thyroid Gland C Cell  
Tooth Dentine, Incisor

Depletion Lymphoid  
Carcinoma  
Necrosis

Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 398

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870378

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

Bone	Humerus	Osteosclerosis	Minimal
	Thoracic, Vertebra	Osteosclerosis	Minimal
	Tibia	Osteosclerosis	Minimal
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-15		
Note: CATARACT	TGLs = 1-15		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-4		
* Lung		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-14		
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 399

TRT#: 2

SEX: Female

DAY ON TEST: 460

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870379

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Inflammation	Chronic Active, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 400

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870380

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder
Uterus			

**OBSERVATIONS**

* Clitoral Gland	Bilateral	Adenoma	
Note: ADENOMA	TGLs = 2-15		
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 401

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870381

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-14			
Note: ATROPHY TGLs = 1-14			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Congestion	Marked
	Pars Distalis	Hyperplasia	Moderate
Note: CONGESTION TGLs = 2-7			
* Thymus		Thymoma Benign	
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 402

TRT#: 2

SEX: Female

DAY ON TEST: 683

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870382

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Kidney	Lymph Node - Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Marked
Note: CATARACT	TGLs = 1-15		
Note: ATROPHY	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC	TGLs = 3-4		
* Lung		Foreign Body	Mild
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
Note: FOREIGN BODY	TGLs = 5-16		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 2-14 ]		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Mild

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 402

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 683

**DOSE:** 0 PPM

**DISP:** Natural Death

**HISTO:** 870382

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: TGL4-7,NOT PRESENT ON SLIDE

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 403

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 719

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mandibular	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Cortex Bilateral, Medulla	Degeneration Pheochromocytoma Benign	Cystic, Moderate
Note: PHEOCHROM BGN TGLs = 5-7			
Ear	Pinna	Fibroma	
Note: FIBROMA TGLs = 1-17			
Eye	Retina Lens	Atrophy Cataract	Marked Moderate
Note: CATARACT TGLs = 2-14			
Note: ATROPHY TGLs = 2-14			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Mild
Note: LEUKEMIA MONUC TGLs = 4-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Deep Cervical Mediastinal Mesenteric	Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7-2,8-6,9-16			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis Pars Intermed	Cyst Cyst	
Note: CYST TGLs = 6-7			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 403

**TRT#:** 2  
**DOSE:** 0 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 719  
**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen Note: LEUKEMIA MONUC TGLs = 3-15		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
Tooth	Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Marked Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 404

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 870384

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Uterus

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
Trachea

\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
\* Urinary Bladder

OBSERVATIONS

\* Adrenal Gland  
\* Clitoral Gland  
  
Note: CYST      TGLs = 2-10

Cortex  
Duct

Hyperplasia  
Cyst  
Hyperplasia

Mild  
  
Glandular, Mild

\* Heart  
\* Kidney  
\* Liver  
  
Note: HEPATOCLR ADEN      TGLs = 3-15  
Mammary Gland

Degeneration  
Nephropathy  
Hepatocellular Adenoma  
Inflammation

Chronic, Mild  
Chronic, Mild  
  
Chronic Active, Mild

Note: FIBROADENOMA      TGLs = 1-14  
\* Thymus  
Tooth

Lower, Molar, Peridont Tiss  
Dentine, Incisor

Fibroadenoma  
Hyperplasia  
  
Depletion Lymphoid  
Inflammation  
Necrosis

Cystic, Mild  
  
Moderate  
Suppurative, Chronic, Moderate  
Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 405

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870385

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

MISSING

Skin

OBSERVATIONS

* Clitoral Gland		Adenoma	
Note: ADENOMA	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
Intestine Small	Jejunum	Leiomyoma	
Note: LEIOMYOMA	TGLs = 3-6		
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Vacuolization Cytoplasmic	Minimal
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA	TGLs = 2-15		
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 406

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 677

HISTO: 870386

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Duodenum  
\* Nose  
Skin  
Uterus

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Ovary  
Stomach - Forestomach

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Parathyroid Gland  
\* Thyroid Gland

\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Salivary Glands  
Trachea

MISSING

\* Thymus

OBSERVATIONS

\* Adrenal Gland  
\* Bone Marrow  
\* Heart  
\* Kidney  
\* Liver

Medulla  
Femoral  
  
  
Bile Duct

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Hyperplasia  
Hyperplasia  
Leukemia Mononuclear

Moderate  
Moderate

Note: HYPERPLASIA TGLs = 4-4,4-15

\* Lung  
Lymph Node

Mandibular  
Mediastinal  
Mesenteric

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 2-7,3-2,7-6

Mammary Gland  
Mesentery

Fat

Hyperplasia  
Inflammation

Cystic, Mild  
Chronic Active, Marked

Note: INFLAMMATION TGLs = 6-16

\* Pancreas

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 9-16

\* Pituitary Gland

Pars Distalis

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 1-7

\* Spleen

Leukemia Mononuclear

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 406	<b>TRT#:</b> 2 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Female <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 677 <b>HISTO:</b> 870386
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: NECROSIS TGLs = 8-14 [ Necrosis TGLS = 5-14 ]		Necrosis	Moderate
Stomach	Glandular	Leukemia Mononuclear	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
* Urinary Bladder		Leukemia Mononuclear	

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PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 407

TRT#: 2

SEX: Female

DAY ON TEST: 184

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870387

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

**OBSERVATIONS**

\* Kidney                      Renal Tubule                      Mineralization                      Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 408

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 870388

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Uterus

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
Trachea

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

OBSERVATIONS

Bone	Thoracic, Vertebra Tibia	Osteosclerosis Osteosclerosis Degeneration Nephropathy Basophilic Focus Clear Cell Focus Inflammation	Moderate Moderate Chronic, Mild Chronic, Mild   Chronic Active, Moderate
* Heart			
* Kidney			
* Liver			
Note: CLEAR CL FOCUS TGLs = 2-14 Note: BASOPH FOCUS TGLs = 3-15 Mammary Gland		Fibroadenoma Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 1-16 * Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Congestion	Moderate
Note: ADENOMA TGLs = 4-7 * Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Necrosis	Multifocal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 409

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870389

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Minimal
		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:20  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 410

**TRT#:** 2  
**DOSE:** 0 PPM

**SEX:** Female  
**DISP:** Scheduled Sacrifice

**DAY ON TEST:** 185  
**HISTO:** 870390

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

**OBSERVATIONS**

\* Kidney                      Renal Tubule                      Mineralization                      Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 411

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870391

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Clitoral Gland		Inflammation	Chronic Active, Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Vacuolization Cytoplasmic	Minimal
Mammary Gland		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 1-14			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 2-7			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 412

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870392

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Nose  
\* Pituitary Gland  
Stomach - Glandular  
Uterus

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Ovary  
\* Salivary Glands  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver

Degeneration  
Nephropathy  
Clear Cell Focus  
Inflammation  
Leukemia Mononuclear  
Alveolar/Bronchiolar Adenoma  
Hyperplasia  
Hyperplasia  
Infiltration Cellular

Chronic, Mild  
Chronic, Minimal  
  
Chronic Active, Minimal  
  
Cystic, Minimal  
Lymphoid, Nodular, Moderate  
Lipocyte, Moderate

Note: INFILTRAT CELL TGLs = 1-14

Note: HYPERPLASIA TGLs = 1-14

\* Thymus

Depletion Lymphoid

Moderate

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 413

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870393

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Lung	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Islets, Pancreatic		Adenoma	
Note: ADENOMA	TGLs = 2-6		
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 1-7		
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 414

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870394

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Pancreas  
Skin  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Parathyroid Gland  
Stomach - Glandular

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Nose  
\* Pituitary Gland  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Ovary  
\* Salivary Glands  
Trachea

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver  
\* Lung  
Lymph Node  
  
Mammary Gland  
Note: HYPERPLASIA TGLs = 1-14  
\* Spleen  
Note: LEUKEMIA MONUC TGLs = 2-15  
Stomach  
Note: ACANTHOSIS TGLs = 4-17  
\* Thymus  
Tooth  
Uterus  
Note: [ HYPERPLASIA ] TGLs = 3-16

Mandibular  
Mesenteric  
  
  
  
  
Forestomach  
  
  
Dentine, Incisor  
Endometrium

Degeneration  
Nephropathy  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Hyperplasia  
  
Leukemia Mononuclear  
  
Acanthosis  
  
Depletion Lymphoid  
Necrosis  
Hyperplasia

Chronic, Mild  
Chronic, Minimal  
  
  
  
Cystic, Moderate  
  
  
Mild  
  
Mild  
Multifocal, Minimal  
Cystic, Glandular, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 415

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870395

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Uterus

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
Trachea

OBSERVATIONS

\* Heart  
\* Kidney  
[ Nephropathy TGLS = 2-1 ]  
\* Liver  
  
Mammary Gland  
\* Pituitary Gland  
Note: CYST TGLs = 1-7  
\* Thymus  
Tooth

Cortex  
  
  
  
  
Pars Distalis  
  
Lower, Molar, Peridont Tiss  
Dentine, Incisor

Degeneration  
Cyst  
Nephropathy  
  
Basophilic Focus  
Clear Cell Focus  
Inflammation  
Hyperplasia  
Cyst  
  
Depletion Lymphoid  
Inflammation  
Necrosis

Chronic, Mild  
  
Chronic, Moderate  
  
Chronic Active, Mild  
Cystic, Moderate  
  
Mild  
Suppurative, Chronic, Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-10, FOCUS NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 416

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870396

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Clitoral Gland		Adenoma	
Note: ADENOMA	TGLs = 1-14		
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Mild
Note: ADENOMA	TGLs = 3-7		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Note: ADENOMA	TGLs = 2-7		
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 417

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870397

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Uterus

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
Trachea

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver  
Mammary Gland

Bile Duct

Degeneration  
Nephropathy  
Hyperplasia  
Fibroadenoma  
Hyperplasia

Chronic, Minimal  
Chronic, Moderate  
Minimal  
Cystic, Moderate

Note: FIBROADENOMA TGLs = 1-14

\* Pituitary Gland

Pars Intermed  
Rathkes Cleft

Carcinoma  
Cyst

Note: CYST TGLs = 2-7

\* Thymus

Depletion Lymphoid

Moderate

Tooth

Lower, Molar, Peridont Tiss  
Dentine, Incisor

Inflammation  
Necrosis

Suppurative, Chronic, Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TIBIA, FAILURE OF REMODELED TRABECULAE, FOCAL.

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 418

TRT#: 2

SEX: Female

DAY ON TEST: 691

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870398

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Cortex	Degeneration	Cystic, Mild
* Brain		Compression	
		Hydrocephalus	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Marked
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 2-15		
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 3-7		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL4-4, TAN LIVER PIGMENT NOT APPARENT ON MICRO

Animal Note: MORIBUND SAC DUE TO PITUITARY TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 419

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870399

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
Note: LEUKEMIA MONUC TGLs = 3-4		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Marked
Note: FIBROADENOMA TGLs = 1-15			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-14			
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 420

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870400

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Pancreas  
Stomach - Forestomach  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Parathyroid Gland  
Stomach - Glandular  
Uterus

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Nose  
\* Salivary Glands  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Ovary  
Skin  
Trachea

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver  
  
Note: LEUKEMIA MONUC TGLs = 3-4  
\* Lung  
Lymph Node  
  
Mammary Gland  
\* Pituitary Gland  
  
Note: ADENOMA TGLs = 1-7  
\* Spleen  
Note: LEUKEMIA MONUC TGLs = 2-14  
\* Thymus  
Tooth

Bile Duct  
  
Mandibular  
Mediastinal  
Mesenteric  
  
Pars Distalis  
Pars Distalis  
  
Molar, Peridont Tiss  
Dentine, Incisor

Degeneration  
Nephropathy  
Hyperplasia  
Leukemia Mononuclear  
  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Hyperplasia  
Adenoma  
Cyst  
  
Leukemia Mononuclear  
  
Depletion Lymphoid  
Inflammation  
Necrosis

Chronic, Minimal  
Chronic, Minimal  
Marked  
  
  
  
  
Cystic, Moderate  
  
  
  
  
Moderate  
Suppurative, Mild  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 421

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870401

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Parathyroid Gland
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-15			
Note: CATARACT TGLs = 1-15			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Minimal
Note: [ BASOPH FOCUS ] TGLs = 4-16			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Marked
Note: FIBROADENOMA TGLs = 2-14			
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 3-7			
* Salivary Glands	Acinus	Cytomegaly	Mild
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 422

TRT#: 2

SEX: Female

DAY ON TEST: 460

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870402

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Gland - Cortex
- \* Brain
- Intestine Large - Cecum
- Intestine Small - Ileum
- Lymph Node - Mandibular
- \* Ovary
- Skin
- \* Thymus
- \* Urinary Bladder

- \* Adrenal Gland - Medulla
- \* Clitoral Gland
- Intestine Large - Colon
- Intestine Small - Jejunum
- Lymph Node - Mesenteric
- \* Pancreas
- \* Spleen
- \* Thyroid Gland
- Uterus

- Bone
- Esophagus
- Intestine Large - Rectum
- \* Islets, Pancreatic
- Mammary Gland
- \* Parathyroid Gland
- Stomach - Forestomach
- Tooth

- \* Bone Marrow
- \* Heart
- Intestine Small - Duodenum
- \* Lung
- \* Nose
- \* Salivary Glands
- Stomach - Glandular
- Trachea

OBSERVATIONS

- \* Kidney
- \* Liver
- \* Pituitary Gland

- Pars Distalis
- Pars Distalis

- Nephropathy
- Basophilic Focus
- Cyst
- Hyperplasia

- Chronic, Minimal
- Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 423

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870403

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-14			
Note: ATROPHY TGLs = 1-14			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-1			
* Thymus		Depletion Lymphoid	Minimal
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 424

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870404

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
* Clitoral Gland		Adenoma	
Note: ADENOMA	TGLs = 2-10		
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Mild
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 425

TRT#: 2

SEX: Female

DAY ON TEST: 643

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870405

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Forestomach	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Medulla	Hemorrhage	Marked
Note: HEMORRHAGE TGLs = 7-7			
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
[ Leukemia Mononuclear TGLs = 3-4,4-15 ]			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-6			
Mammary Gland		Hyperplasia	Cystic, Marked
* Ovary		Leukemia Mononuclear	
* Pancreas		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
		Necrosis	Moderate
Note: NECROSIS TGLs = 2-14			
[ Necrosis TGLs = 1-1 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 425

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 643

**DOSE:** 0 PPM

**DISP:** Natural Death

**HISTO:** 870405

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Stomach	Glandular	Necrosis	Mild
Note: NECROSIS      TGLs = 6-6			
* Thymus		Leukemia Mononuclear	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL4-15 IS LIVER, NOT MEDIAS TINAL LYMPH NODE

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 426

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870406

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
* Clitoral Gland		Hyperplasia	Glandular, Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Spleen		Fibrosis	Mild
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 427

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870407

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 1-7			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 428

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 870408

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Clitoral Gland		Hyperplasia	Glandular, Mild
		Inflammation	Chronic Active, Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 2-14			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 1-7			
* Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 429

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870409

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
Ear	Pinna	Fibrosarcoma	
Note: FIBROSARC	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA	TGLs = 2-7		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 430

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 870410

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Kidney	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

MISSING

\* Thymus

OBSERVATIONS

* Clitoral Gland		Adenoma	
Note: ADENOMA	TGLs = 4-10		
* Heart		Degeneration	Chronic, Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Chronic Active, Mild
Note: CLEAR CL FOCUS	TGLs = 1-14,2-14		
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Congestion	Moderate
	Pars Distalis	Hyperplasia	Moderate
Note: HYPERPLASIA	TGLs = 3-7		
* Spleen		Hyperplasia	Reticulum Cell, Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 431

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870411

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Clitoral Gland		Adenoma	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-6			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
	Pars Distalis	Cyst	
Note: ADENOMA TGLs = 1-7			
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 432

TRT#: 2

SEX: Female

DAY ON TEST: 184

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870412

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Liver
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	* Spleen	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder
Uterus			

**OBSERVATIONS**

* Kidney	Renal Tubule	Mineralization	Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
Stomach	Forestomach	Acanthosis	Moderate

Note: ACANTHOSIS TGLs = 1-14

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 433

TRT#: 2

SEX: Female

DAY ON TEST: 674

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870413

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

Eye Note: [ HEMORRHAGE ] TGLs = 1-14	Antr Chamber	Hemorrhage	Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver		Vacuolization Cytoplasmic	Moderate
Mammary Gland Note: [ HYPERPLASIA ] TGLs = 2-15		Hyperplasia	Cystic, Marked
Oral Mucosa Note: [ SQUAM CEL CARC ] TGLs = 5-16	Gingival	Squamous Cell Carcinoma	
* Pituitary Gland Note: [ CYST ] TGLs = 4-7	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Incisor, Peridont Tiss	Inflammation	Necrotizing, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus Note: [ POLYP STROMAL ] TGLs = 3-10		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MANDIBULAR MASS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 434

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 634

HISTO: 870414

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Bilateral, Cortex Cortex	Hyperplasia Vacuolization Cytoplasmic	Marked Focal, Mild
Note: HYPERPLASIA TGLs = 7-7			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Centrilobular	Basophilic Focus Necrosis	Moderate
Note: NECROSIS TGLs = 5-4			
Lymph Node	Mesenteric	Inflammation	Chronic Active, Moderate
Mammary Gland		Hyperplasia	Cystic, Marked
* Ovary	Follicle	Cyst	
Note: CYST TGLs = 3-10			
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 6-7			
* Spleen		Hematopoietic Cell Proliferation	Marked
Note: HEMA CELL PROL TGLs = 4-1			
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Vagina		Leiomyosarcoma Prolapse	
Note: LEIOMYOSAR TGLs = 1-14,1-15			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 434

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 634

**DOSE:** 0 PPM

**DISP:** Natural Death

**HISTO:** 870414

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: PROLAPSE      TGLs = 2-14,2-15

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PRIMARY CAUSE OF DEATH      -

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Animal Note: TGL8-6, PIGMENT NOT APPARENT ON MICRO

Animal Note: COD, VAGINAL TUMOR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 435

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 682

HISTO: 870415

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Brain		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-14,3-5,4-5		
* Clitoral Gland	Duct	Cyst	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
* Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6-15		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 5-7		
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 1-16		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 436

TRT#: 2

SEX: Female

DAY ON TEST: 376

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870416

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Ovary  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland

OBSERVATIONS

\* Brain  
\* Heart  
\* Kidney  
\* Liver  
\* Pancreas  
Uterus

Bile Duct  
Acinus

Astrocytoma Malignant  
Degeneration  
Nephropathy  
Hyperplasia  
Inflammation  
Atrophy  
Polyp Stromal

Chronic, Minimal  
Chronic, Moderate  
Mild  
Chronic Active, Minimal  
Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: CAUSE FOR MORIBUND SACRIFICE DUE TO BRAIN TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 437

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870417

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Moderate
Mammary Gland		Hyperplasia	Cystic, Marked
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
	Pars Distalis	Hyperplasia	Moderate
Note: ADENOMA	TGLs = 1-7		
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Cervix	Fibrosarcoma	
Note: FIBROSARC	TGLs = 3-14,3-15		
Vagina		Fibrosarcoma	
Note: FIBROSARC	TGLs = 2-14,2-15		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 438

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: 870418

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Angiectasis	Minimal
		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
Note: CLEAR CL FOCUS TGLs = 2-15			
Note: HDN TGLs = 3-16			
Note: [ ANGIECTASIS ] TGLs = 4-17			
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Mild
	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Cervix	Cyst	
	Endometrium	Hyperplasia	Cystic, Glandular, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:20

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 438

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870418

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: CYST      TGLs = 1-14

**PRIMARY CAUSE OF DEATH**      -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 439

TRT#: 2

SEX: Female

DAY ON TEST: 647

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870419

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Kidney
* Lung	Lymph Node - Mandibular	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

MISSING

\* Thymus

OBSERVATIONS

Ear	Pinna	Fibrosarcoma	
[ Fibrosarcoma TGLS = 1-14 ]			
* Liver		Hepatodiaphragmatic Nodule Inflammation	Chronic Active, Mild
[ Hepatodiaphragmatic Nodule TGLS = 4-4 ]			
Lymph Node	Mesenteric	Infiltration Cellular	Histiocyte, Moderate
Note: INFILTRAT CELL TGLs = 5-6			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Ovary	Periovarn Tiss	Cyst	
Note: CYST TGLs = 3-10			
* Pituitary Gland	Pars Distalis	Cyst	
Skin		Trichoepithelioma	
Note: TRICHOEPITHEL TGLs = 2-15			
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO SKIN TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:20

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 440

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870420

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 2-14			
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
	Pars Distalis	Hyperplasia	Mild
Note: ADENOMA TGLs = 1-7			
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 441

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870421

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Ovary	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
Lymph Node	Mediastinal	Congestion	Moderate
Note: CONGESTION	TGLs = 2-2		
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
Note: CYST	TGLs = 4-7		
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	Follicular Cel	Carcinoma	
Note: CARCINOMA	TGLs = 3-7		
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 441

**TRT#:** 2  
**DOSE:** 0 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 732  
**HISTO:** 870421

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Dentine, Incisor

Necrosis

Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 442

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870422

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Ovary	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Cortex	Adenoma	
* Brain		Compression	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Minimal
	Mucosa	Inflammation	Chronic Active, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 1-7			
* Spleen		Hyperplasia	Reticulum Cell, Moderate
		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 443

**TRT#:** 2  
**DOSE:** 0 PPM

**SEX:** Female  
**DISP:** Scheduled Sacrifice

**DAY ON TEST:** 185  
**HISTO:** 870423

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Liver
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thymus	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder	Uterus	

**OBSERVATIONS**

* Kidney	Renal Tubule	Mineralization	Mild
Mammary Gland		Hyperplasia	Cystic, Mild

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 444

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870424

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Focal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 445

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 630

HISTO: 870425

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Cortex Medulla	Congestion Granulosa Cell Tumor Malignant	Marked Metastatic (Ovary)
Note: [ GRANLSA TM MAL ] TGLs = 5-7			
Note: CONGESTION TGLs = 6-7			
* Heart		Granulosa Cell Tumor Malignant	Metastatic (Ovary)
Note: [ GRANLSA TM MAL ] TGLs = 8-14			
* Kidney		Granulosa Cell Tumor Malignant Nephropathy	Metastatic (Ovary) Chronic, Minimal
Note: [ GRANLSA TM MAL ] TGLs = 7-1			
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear Granulosa Cell Tumor Malignant	Mild Metastatic (Ovary)
* Lung			
Note: [ GRANLSA TM MAL ] TGLs = 3-2,3-3			
Lymph Node	Mandibular Mesenteric	Leukemia Mononuclear Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1-7			
* Ovary		Granulosa Cell Tumor Malignant	
Note: GRANLSA TM MAL TGLs = 4-10			
Skin	Subcut Tiss	Granulosa Cell Tumor Malignant	Metastatic (Ovary)
Note: [ GRANLSA TM MAL ] TGLs = 9-15,9-16			
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 445

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 630

**DOSE:** 0 PPM

**DISP:** Natural Death

**HISTO:** 870425

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: COD, OVARIAN TUMOR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 446

TRT#: 2

SEX: Female

DAY ON TEST: 260

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870426

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Ovary  
Skin  
\* Thyroid Gland

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Parathyroid Gland  
\* Spleen  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Stomach - Forestomach  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
Mammary Gland  
\* Salivary Glands  
Stomach - Glandular  
Uterus

MISSING

Tooth

OBSERVATIONS

* Heart		Degeneration	Chronic, Minimal
* Nose	Mucosa	Inflammation	Chronic Active, Mild
		Metaplasia	Squamous, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO UNDETERMINED CAUSE

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 447

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870427

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Liver	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Uterus	Trachea	* Urinary Bladder

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 448

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870428

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Hepatocellular Adenoma	
		Leukemia Mononuclear	
Note: HEPATOCLR ADEN	TGLs = 2-15		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Congestion	Moderate
	Pars Intermed	Cyst	
	Pars Distalis	Hyperplasia	Moderate
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 448

**TRT#:** 2  
**DOSE:** 0 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 732  
**HISTO:** 870428

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 449

TRT#: 2

SEX: Female

DAY ON TEST: 184

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870429

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

**OBSERVATIONS**

\* Kidney

Nephropathy

Chronic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 450

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 870430

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Brain		Compression	
		Hydrocephalus	Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Mild
Note: ADENOMA	TGLs = 2-7		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 451

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870431

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA TGLs = 1-14,2-15			
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 3-17			
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Cyst	
Note: CYST TGLs = 4-7			
Stomach	Glandular	Cyst Epithelial Inclusion	
Note: CYST EPITH INC TGLs = 5-16			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 452

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870432

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Clitoral Gland	Duct	Cyst	
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA TGLs = 2-10		Hyperplasia	Cystic, Marked
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	Follicular Cel	Carcinoma	
Note: CARCINOMA TGLs = 1-14			
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

Animal Note: HAS MAMMARY TUMOR ATTACHED TO IT WHICH IS

Animal Note: TGL2-10, CLITORAL GLAND HAS CYSTIC DUCTS BUT

Animal Note: THE MASS SEEN AT TRIM

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 453

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870433

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pituitary Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Clitoral Gland		Adenoma	
		Inflammation	Chronic Active, Mild
Note: ADENOMA	TGLs = 3-10		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA	TGLs = 1-14,2-15		
* Pancreas	Acinus	Atrophy	Minimal
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 454

TRT#: 2

SEX: Female

DAY ON TEST: 463

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870434

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	* Spleen	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

MISSING

\* Thymus

OBSERVATIONS

* Kidney		Nephropathy	Chronic, Mild
* Liver		Congestion	Moderate
		Vacuolization Cytoplasmic	Moderate
Note: CONGESTION	TGLs = 1-4,1-14		
* Nose	Mucosa	Inflammation	Acute, Moderate
	Mucosa	Ulcer	Mild
Stomach	Forestomach	Acanthosis	Moderate
Note: ACANTHOSIS	TGLs = 2-15		
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-6, NORMAL GLANDULAR STOMACH

Animal Note: TGL4-16, NO MASS, NORMAL MAMMARY TISSUE

Animal Note: COD, UNDETERMINED

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 455

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870435

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Cortex	Degeneration	Cystic, Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
Note: ADENOMA	TGLs = 1-7		
* Thymus		Depletion Lymphoid	Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 456

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870436

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 1-14			
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 457

TRT#: 2

SEX: Female

DAY ON TEST: 663

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870437

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Clitoral Gland	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

* Brain		Hemorrhage	Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC	TGLs = 2-4,12-19		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-7,5-16,6-6		
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 1-7		
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[ Fibrosis TGLS = 9-15 ]			
[ Leukemia Mononuclear TGLS = 3-1 ]			
Stomach	Glandular	Necrosis	Minimal
	Forestomach	Ulcer	Moderate
Note: ULCER	TGLs = 11-14		
Note: NECROSIS	TGLs = 10-14		
* Thymus		Leukemia Mononuclear	
Uterus		Polyp Stromal	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 457

**TRT#:** 2  
**DOSE:** 0 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 663  
**HISTO:** 870437

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: POLYP STROMAL TGLs = 7-17

Vagina

Exudate

Note: EXUDATE TGLs = 8-18

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PRIMARY CAUSE OF DEATH

-

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA AND UTERINE POLYP

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 458

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870438

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Degeneration	Cystic, Moderate
* Clitoral Gland	Duct	Cyst	
		Hyperplasia	Glandular, Mild
		Inflammation	Chronic Active, Mild
Note: CYST	TGLs = 2-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus		Polyp Stromal	
Note: POLYP STROMAL	TGLs = 1-10		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 459

TRT#: 2

SEX: Female

DAY ON TEST: 184

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870439

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Ovary  
Skin  
\* Thymus  
Uterus

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pancreas  
\* Spleen  
\* Thyroid Gland

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
Stomach - Forestomach  
Trachea

\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

**MISSING**

\* Pituitary Gland

**INSUFFICIENT TISSUE**

Tooth

**OBSERVATIONS**

Bone

Thoracic, Vertebra

Fibrous Osteodystrophy

Minimal

Tibia

Fibrous Osteodystrophy

Minimal

\* Kidney

Renal Tubule

Mineralization

Moderate

Nephropathy

Chronic, Minimal

Mesentery

Inflammation

Chronic Active, Mild

Note: INFLAMMATION TGLs = 1-14

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 460

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870440

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

Bone	Humerus	Osteosclerosis	Moderate
	Thoracic, Vertebra	Osteosclerosis	Minimal
	Tibia	Osteosclerosis	Mild
* Clitoral Gland	Duct	Cyst	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
Note: BASOPH FOCUS TGLs = 2-14			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
Note: CYST TGLs = 1-7			
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 461

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870441

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-15			
Note: CATARACT TGLs = 1-15			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
[ Basophilic Focus TGLS = 3-16 ]			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 2-14			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Intermed	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 462

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870442

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Lung	* Nose	* Ovary	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

MISSING

\* Thymus

OBSERVATIONS

* Clitoral Gland		Inflammation	Chronic Active, Mild
* Heart		Degeneration	Chronic, Minimal
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Basophilic Focus	
		Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
[ Fibroadenoma TGLS = 1-14 ]			
* Pancreas	Acinus	Atrophy	Minimal
* Spleen		Leukemia Mononuclear	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 463

TRT#: 2

SEX: Female

DAY ON TEST: 646

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870443

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

MISSING

\* Thymus

OBSERVATIONS

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Hyperplasia	Minimal
Note: HDN	TGLs = 3-15	Bile Duct	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA	TGLs = 1-14		
* Pituitary Gland		Pars Distalis	
Note: CYST	TGLs = 2-7		
Tooth		Lower, Molar, Peridont Tiss	Suppurative, Chronic, Marked

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY MASS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 464

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870444

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Brain		Compression	
		Hydrocephalus	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
Note: HDN	TGLs = 3-16		
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA	TGLs = 2-15		
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
	Pars Distalis	Hyperplasia	Mild
Note: ADENOMA	TGLs = 4-7		

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 464

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870444

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thymus

Depletion Lymphoid

Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 465

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870445

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
Trachea

\* Adrenal Gland - Medulla  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach

\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular

OBSERVATIONS

Bone  
  
\* Clitoral Gland  
  
Note: CYST      TGLs = 1-14  
\* Heart  
\* Kidney  
\* Liver  
  
Mammary Gland  
\* Pituitary Gland  
\* Thymus  
\* Thyroid Gland  
Tooth  
Uterus

Humerus  
Thoracic, Vertebra  
Tibia  
Duct  
  
Bile Duct  
  
Pars Distalis  
  
C Cell  
Dentine, Incisor  
Endometrium

Osteosclerosis  
Osteosclerosis  
Osteosclerosis  
Cyst  
Inflammation  
  
Degeneration  
Nephropathy  
Basophilic Focus  
Hyperplasia  
Hyperplasia  
Hyperplasia  
Depletion Lymphoid  
Adenoma  
Necrosis  
Hyperplasia

Moderate  
Moderate  
Moderate  
Chronic Active, Mild  
  
Chronic, Minimal  
Chronic, Marked  
  
Minimal  
Cystic, Moderate  
Mild  
Mild  
  
Multifocal, Minimal  
Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 466

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870446

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thymus	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder	Uterus	

**OBSERVATIONS**

* Adrenal Gland	Cortex	Hypertrophy	Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 467

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870447

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	Esophagus
* Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
* Brain		Compression	
		Hydrocephalus	Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Inflammation	Chronic Active, Mild
* Lung	Alveolar Epith	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
Note: CONGESTION TGLs = 2-7			
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked
	Dentine, Incisor	Necrosis	Focal, Minimal
Uterus		Polyp Stromal	
Note: POLYP STROMAL TGLs = 1-14			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 468

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870448

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
\* Urinary Bladder

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver  
Mammary Gland  
\* Pituitary Gland  
\* Thymus  
\* Thyroid Gland  
Tooth  
Uterus

Pars Distalis  
C Cell  
Lower, Molar, Peridont Tiss

Degeneration  
Nephropathy  
Basophilic Focus  
Hyperplasia  
Cyst  
Depletion Lymphoid  
Adenoma  
Inflammation  
Polyp Stromal

Chronic, Minimal  
Chronic, Mild  
Cystic, Mild  
Moderate  
Suppurative, Chronic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 469

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870449

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Tooth	Trachea	* Urinary Bladder	Uterus

**OBSERVATIONS**

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Clitoral Gland		Carcinoma	
Note: CARCINOMA	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 470

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870450

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular  
Uterus

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
Skin  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Spleen  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver

Degeneration  
Nephropathy  
Basophilic Focus  
Clear Cell Focus  
Eosinophilic Focus  
Hyperplasia  
Atrophy  
Adenoma

Chronic, Minimal  
Chronic, Moderate

Mammary Gland  
\* Pancreas  
\* Pituitary Gland  
Note: ADENOMA TGLs = 1-7  
\* Thymus  
Tooth

Acinus  
Pars Distalis  
  
Lower, Molar, Peridont Tiss  
Dentine, Incisor

Depletion Lymphoid  
Inflammation  
Necrosis

Cystic, Mild  
Mild  
  
Marked  
Suppurative, Chronic, Mild  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 471

TRT#: 2

SEX: Female

DAY ON TEST: 184

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870451

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

**OBSERVATIONS**

\* Kidney                      Renal Tubule                      Mineralization                      Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 472

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870452

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Bone	Humerus	Osteosclerosis	Moderate
	Thoracic, Vertebra	Osteosclerosis	Mild
	Tibia	Osteosclerosis	Mild
* Clitoral Gland	Duct	Cyst	
		Inflammation	Chronic Active, Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-15		
Note: ATROPHY	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Mild
Note: ALV BRON ADEN	TGLs = 4-3		
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA	TGLs = 2-16		
* Thymus		Depletion Lymphoid	Moderate
Tongue		Hyperplasia	Squamous, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 472

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870452

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: [ HYPERPLASIA ] TGLs = 3-14

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 473

TRT#: 2

SEX: Female

DAY ON TEST: 620

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870453

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Hepatodiaphragmatic Nodule	
Note: HDN TGLs = 5-15			
Mammary Gland		Hyperplasia	Cystic, Moderate
Stomach	Glandular	Hyperplasia	Mild
Note: HYPERPLASIA TGLs = 3-6			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Zymbal's Gland		Carcinoma	
Note: CARCINOMA TGLs = 1-17,1-18,2-16			

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO ZYMBALS GLAND TUMOR

Animal Note: MORIBUND SAC DUE TO ZYMBALS GLAND TUMOR

Animal Note: TGL4-14 NO PIGMENT APPARENT

Animal Note: TGL2-16,SALIVARY GLAND DESTROYED BY ZYMBALS TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 474

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870454

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Clitoral Gland		Adenoma	
Note: ADENOMA	TGLs = 3-10		
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-15		
Note: ATROPHY	TGLs = 1-15		
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Basophilic Focus	
		Hyperplasia	Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5-4		
* Lung	Mandibular	Leukemia Mononuclear	
Lymph Node		Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA	TGLs = 2-16		
* Pituitary Gland	Pars Distalis	Cyst	
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-1		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 474

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870454

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Uterus

Polyp Stromal

Note: POLYP STROMAL TGLs = 6-14

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 475

TRT#: 2

SEX: Female

DAY ON TEST: 710

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870455

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-16		
Note: ATROPHY	TGLs = 1-16		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
Skin		Ulcer	Moderate
Note: ULCER	TGLs = 2-17		
Spinal Cord	Myelin	Degeneration	Moderate
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO POSTERIOR PARALYSIS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 476

TRT#: 2

SEX: Female

DAY ON TEST: 400

DOSE: 0 PPM

DISP: Natural Death

HISTO: 870456

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	Stomach - Glandular	* Thymus	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	Uterus

MISSING

Mammary Gland

OBSERVATIONS

* Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-7		
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
* Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-14 ]			
Stomach	Forestomach	Acanthosis	Moderate
Note: ACANTHOSIS	TGLs = 3-15		

PRIMARY CAUSE OF DEATH

-

Animal Note: CAUSE OF DEATH LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 477

TRT#: 2

SEX: Female

DAY ON TEST: 719

DOSE: 0 PPM

DISP: Moribund Sacrifice

HISTO: 870457

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Ovary	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
* Clitoral Gland		Adenoma	
Note: ADENOMA TGLs = 3-15			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Mild
Note: LEUKEMIA MONUC TGLs = 2-4		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-14 ]			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 478

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870458

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

**OBSERVATIONS**

* Adrenal Gland	Cortex	Degeneration	Cystic, Mild
* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 479

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 683

HISTO: 870459

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	Uterus

MISSING

\* Clitoral Gland

OBSERVATIONS

* Adrenal Gland	Medulla	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Moderate
		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Minimal
* Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC	TGLs = 2-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Ovary		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 1-14		
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 480

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO: 870460

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Tooth	Trachea	* Urinary Bladder	

OBSERVATIONS

* Clitoral Gland		Adenoma	
Note: ADENOMA	TGLs = 2-10		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 1-7		
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Uterus		Polyp Stromal	
Note: POLYP STROMAL	TGLs = 3-10		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 481

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870461

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thymus  
\* Urinary Bladder

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
Tooth

OBSERVATIONS

\* Clitoral Gland  
\* Heart  
\* Kidney  
\* Liver  
\* Nose  
\* Pituitary Gland

Pars Distalis  
Pars Distalis  
Endometrium

Inflammation  
Degeneration  
Nephropathy  
Inflammation  
Inflammation  
Cyst  
Hyperplasia  
Hyperplasia

Chronic Active, Minimal  
Chronic, Mild  
Chronic, Minimal  
Chronic Active, Mild  
Chronic Active, Mild  
Moderate  
Cystic, Glandular, Mild

Note: HYPERPLASIA TGLs = 1-10

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 482

TRT#: 2

SEX: Female

DAY ON TEST: 460

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870462

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Ovary  
Skin  
\* Thymus  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pancreas  
\* Spleen  
\* Thyroid Gland  
Uterus

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
Stomach - Forestomach  
Tooth

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Trachea

**OBSERVATIONS**

\* Heart  
\* Kidney  
\* Pituitary Gland

Pars Distalis

Degeneration  
Nephropathy  
Hyperplasia

Chronic, Minimal  
Chronic, Mild  
Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 483

TRT#: 2

SEX: Female

DAY ON TEST: 460

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870463

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex

\* Adrenal Gland - Medulla

Bone

\* Bone Marrow

\* Brain

\* Clitoral Gland

Esophagus

Eye

\* Heart

Intestine Large - Cecum

Intestine Large - Colon

Intestine Large - Rectum

Intestine Small - Duodenum

Intestine Small - Ileum

Intestine Small - Jejunum

\* Islets, Pancreatic

\* Lung

Lymph Node - Mandibular

Lymph Node - Mesenteric

Mammary Gland

\* Nose

\* Ovary

\* Pancreas

\* Parathyroid Gland

\* Salivary Glands

Skin

\* Spleen

Stomach - Forestomach

Stomach - Glandular

\* Thymus

\* Thyroid Gland

Tooth

Trachea

\* Urinary Bladder

Uterus

OBSERVATIONS

\* Kidney

Nephropathy

Chronic, Minimal

\* Liver

Hepatodiaphragmatic Nodule

Note: HDN TGLs = 2-14

\* Pituitary Gland

Pars Distalis

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL1-15, EYE IS WITHIN NORMAL LIMITS ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 484

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 870464

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder	Uterus		

**OBSERVATIONS**

* Clitoral Gland		Inflammation	Chronic Active, Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA TGLs = 1-14			
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Moderate
* Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 485

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 870465

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Brain		Compression	
		Hydrocephalus	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Marked
Note: FIBROADENOMA TGLs = 1-14			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 2-7			
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 486

TRT#: 2

SEX: Female

DAY ON TEST: 184

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870466

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

**OBSERVATIONS**

\* Kidney  
Mammary Gland

Renal Tubule

Mineralization  
Hyperplasia

Mild  
Cystic, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL1-14, BOTH EYES ARE NORMAL ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 487

TRT#: 2

DOSE: 0 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 870467

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder			

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
Bone	Tibia	Osteosclerosis	Mild
* Clitoral Gland	Duct	Cyst	
Note: CYST	TGLs = 3-10		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Ovary	Periovarn Tiss	Cyst	
Note: CYST	TGLs = 1-10		
* Pancreas	Acinus	Adenoma	
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
	Pars Distalis	Hyperplasia	Mild
Uterus	Cervix	Cyst	
Note: CYST	TGLs = 2-14		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 488

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870468

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	Tooth	Trachea	* Urinary Bladder
Uterus			

**OBSERVATIONS**

* Kidney		Nephropathy	Chronic, Mild
* Liver		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 489

TRT#: 2

SEX: Female

DAY ON TEST: 185

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870469

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

Bone  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

**MISSING**

\* Bone Marrow

**OBSERVATIONS**

\* Kidney                      Renal Tubule                      Mineralization                      Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 490

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: 0 PPM

DISP: Scheduled Sacrifice

HISTO: 870470

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thymus

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Kidney  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Trachea

**OBSERVATIONS**

\* Liver

Basophilic Focus

Mammary Gland

Inflammation

Chronic Active, Mild

Tooth

Molar, Peridont Tiss

Hyperplasia

Cystic, Mild

Uterus

Endometrium

Inflammation

Suppurative, Marked

Hyperplasia

Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 491

TRT#: 4

SEX: Female

DAY ON TEST: 338

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870521

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Kidney  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

**MISSING**

Mammary Gland

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 493

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 415

**DOSE:** SPECIAL CONTROL

**DISP:** Special Control

**HISTO:** 870523

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

**OBSERVATIONS**

\* Kidney  
\* Liver

Nephropathy  
Inflammation

Chronic, Minimal  
Chronic Active, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 494

TRT#: 4

SEX: Female

DAY ON TEST: 579

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870524

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Liver	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Minimal
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 495

TRT#: 4

SEX: Female

DAY ON TEST: 716

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870525

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
* Thymus	Trachea	* Urinary Bladder	Uterus

MISSING

Lymph Node - Mesenteric

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Cystic, Mild
Note: [ FIBROADENOMA ]			
TGLs = 1-15,2-16,3-14			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hemorrhage	Moderate
Note: [ HEMORRHAGE ]			
TGLs = 4-7			
* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY MASSES

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 496

TRT#: 4

SEX: Female

DAY ON TEST: 641

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870526

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

MISSING

\* Thymus

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: [ CATARACT ] TGLs = 1-14			
Note: [ ATROPHY ] TGLs = 1-14			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Marked
* Pituitary Gland	Pars Distalis	Adenoma	
Note: [ ADENOMA ] TGLs = 2-15			
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 497

TRT#: 4

SEX: Female

DAY ON TEST: 705

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870527

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: [ CATARACT ] TGLs = 2-14			
Note: [ ATROPHY ] TGLs = 2-14			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: [ FIBROADENOMA ] TGLs = 1-15,1-16			
* Pituitary Gland	Pars Distalis	Adenoma	
* Thymus		Depletion Lymphoid	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 498

TRT#: 4

SEX: Female

DAY ON TEST: 661

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870528

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Ovary  
Skin  
\* Thymus  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver

Degeneration  
Nephropathy  
Basophilic Focus  
Hepatodiaphragmatic Nodule  
Hyperplasia  
Inflammation

Chronic, Moderate  
Chronic, Mild  
  
Mild  
Chronic Active, Moderate

Bile Duct

Note: [ INFLAMMATION ] TGLs = 3-4,4-4,5-15

Note: [ HDN ] TGLs = 2-14

\* Lung

Alveolar Epith

Hyperplasia

Mild

Note: [ HYPERPLASIA ] TGLs = 6-2

Lymph Node

Mediastinal

Angiectasis

Moderate

Mammary Gland

Hyperplasia

Cystic, Mild

\* Pancreas

Acinus

Atrophy

Mild

Uterus

Cervix

Cyst

Note: [ CYST ] TGLs = 1-16

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 502

TRT#: 4

SEX: Female

DAY ON TEST: 614

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870532

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
Lymph Node	Renal	Angiectasis	Mild
Note: [ ANGIECTASIS ] TGLs = 2-16			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: [ FIBROADENOMA ] TGLs = 1-14,1-15			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 503

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 561

**DOSE:** SPECIAL CONTROL

**DISP:** Special Control

**HISTO:** 870533

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Ovary  
Skin  
\* Thymus  
Uterus

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
Mammary Gland  
\* Pituitary Gland  
Stomach - Forestomach  
Trachea

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Mild
* Pancreas	Acinus	Atrophy	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 504

TRT#: 4

SEX: Female

DAY ON TEST: 609

DOSE: SPECIAL CONTROL

DISP: Natural Death

HISTO: 870534

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Ovary  
Skin  
Uterus

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Pancreas  
\* Thyroid Gland

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Lung  
\* Parathyroid Gland  
Trachea

\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Nose  
\* Salivary Glands  
\* Urinary Bladder

INSUFFICIENT TISSUE

\* Thymus

OBSERVATIONS

Bone	Humerus	Osteosclerosis	Mild
	Tibia	Osteosclerosis	Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: [ LEUKEMIA MONUC ] TGLs = 4-4			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 2-7,3-2,8-14			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Note: [ HYPERPLASIA ] TGLs = 5-7			
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-1 ]			
Stomach	Forestomach	Acanthosis	Moderate
	Glandular	Ulcer	Mild
Note: [ ULCER ] TGLs = 7-14			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 504

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 609

**DOSE:** SPECIAL CONTROL

**DISP:** Natural Death

**HISTO:** 870534

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: [ ACANTHOSIS ] TGLs = 6-14

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

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Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 506

TRT#: 4

SEX: Female

DAY ON TEST: 515

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870536

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

Bone	Humerus	Osteosclerosis	Moderate
	Thoracic, Vertebra	Osteosclerosis	Moderate
	Tibia	Osteosclerosis	Marked
* Kidney		Nephropathy	Chronic, Mild
* Liver		Hepatodiaphragmatic Nodule	
Note: [ HDN ] TGLs = 1-14			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Thyroid Gland	C Cell	Adenoma	
	Follicle	Cyst	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 508

TRT#: 4

SEX: Female

DAY ON TEST: 677

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870538

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

**OBSERVATIONS**

Bone	Maxilla	Fibrous Osteodystrophy	Minimal
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Inflammation	Chronic Active, Moderate
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Note: [ HYPERPLASIA ] TGLs = 1-7			
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-14, NO LESION PRESENT IN SECTION

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 509

TRT#: 4

SEX: Female

DAY ON TEST: 620

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870539

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Clitoral Gland	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder
Uterus			

**OBSERVATIONS**

* Brain		Compression	
		Hydrocephalus	Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
Note: [ HYPERPLASIA ] TGLs = 2-7			
* Pituitary Gland	Pars Distalis	Adenoma	
Note: [ ADENOMA ] TGLs = 1-14			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO PITUITARY TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 511

TRT#: 4

SEX: Female

DAY ON TEST: 599

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870541

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Parathyroid Gland	* Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Tooth
Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Degeneration	Chronic, Minimal
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: [ LEUKEMIA MONUC ] TGLs = 3-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Ovary	Follicle	Cyst	
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 4-7			
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-14,2-14 ]			
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 511

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 599

**DOSE:** SPECIAL CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 870541

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 512

TRT#: 4

SEX: Female

DAY ON TEST: 584

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870542

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thymus	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder	Uterus	

**OBSERVATIONS**

* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
* Pancreas	Acinus	Atrophy	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 513

TRT#: 4

SEX: Female

DAY ON TEST: 670

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870543

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

Bone	Humerus	Osteosclerosis	Minimal
* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Heart		Thrombosis	
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: [ LEUKEMIA MONUC ] TGLs = 4-4			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: [ FIBROADENOMA ] TGLs = 1-14			
* Pituitary Gland	Pars Distalis	Cyst	
Note: [ CYST ] TGLs = 5-16			
* Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
Note: [ FIBROSIS ] TGLs = 3-15			
[ Fibrosis TGLS = 2-15 ]			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA AND MAMMARY MASS

Animal Note: TGL6-16, FOCUS NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 513

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 670

**DOSE:** SPECIAL CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 870543

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 514

TRT#: 4

SEX: Female

DAY ON TEST: 628

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870544

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
Note: [ EOSIN FOCUS ] TGLs = 3-14			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
Note: [ CYST ] TGLs = 1-7			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-10, PREPUTIAL GLANDS WITHIN NORMAL LIMITS ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 515

TRT#: 4

SEX: Female

DAY ON TEST: 568

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870545

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Pancreas  
\* Spleen  
\* Thyroid Gland

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Stomach - Forestomach  
Trachea

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
\* Ovary  
Skin  
\* Thymus  
Uterus

OBSERVATIONS

\* Kidney  
[ Nephropathy TGLS = 2-1 ]  
Mammary Gland  
\* Nose  
\* Pituitary Gland  
Note: [ ADENOMA ] TGLs = 1-7  
Tooth

Cortex  
  
Mucosa  
Pars Distalis  
  
Dentine, Incisor

Cyst  
Nephropathy  
  
Hyperplasia  
Inflammation  
Adenoma  
  
Necrosis

Chronic, Minimal  
  
Cystic, Moderate  
Acute, Mild  
  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 516

TRT#: 4

SEX: Female

DAY ON TEST: 643

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870546

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Stomach - Forestomach  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Uterus

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Pancreas  
Skin  
\* Thymus

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
\* Spleen  
Trachea

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver  
Mammary Gland  
\* Nose  
  
\* Thyroid Gland  
Tooth

Bile Duct  
  
Sinus  
Mucosa  
C Cell  
Dentine, Incisor

Degeneration  
Nephropathy  
Hyperplasia  
Hyperplasia  
Foreign Body  
Inflammation  
Adenoma  
Necrosis

Chronic, Minimal  
Chronic, Minimal  
Minimal  
Cystic, Minimal  
Moderate  
Chronic Active, Mild  
  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 519

TRT#: 4

SEX: Female

DAY ON TEST: 646

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870549

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Kidney
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

* Liver		Basophilic Focus Hepatodiaphragmatic Nodule Inflammation	Chronic Active, Mild
Note: [ HDN ] TGLs = 2-14			
Mammary Gland		Fibroadenoma	
Note: [ FIBROADENOMA ] TGLs = 1-15,1-16			
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Moderate Multifocal, Minimal
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 520

TRT#: 4

SEX: Female

DAY ON TEST: 633

DOSE: SPECIAL CONTROL

DISP: Natural Death

HISTO: 870550

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Brain	* Clitoral Gland	Esophagus
* Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Kidney	* Nose	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Skin	Stomach - Forestomach	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Medulla	Leukemia Mononuclear	
Bone	Humerus	Osteosclerosis	Moderate
* Bone Marrow	Femoral	Leukemia Mononuclear	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: [ CATARACT ] TGLs = 1-16			
Note: [ ATROPHY ] TGLs = 1-16			
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: [ LEUKEMIA MONUC ] TGLs = 3-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: [ LEUKEMIA MONUC ] TGLs = 4-14			
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery		Leukemia Mononuclear	
* Ovary		Leukemia Mononuclear	
* Pancreas		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-1 ]			
Stomach	Glandular	Necrosis	Mild
Note: [ NECROSIS ] TGLs = 5-15			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 520

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 633

**DOSE:** SPECIAL CONTROL

**DISP:** Natural Death

**HISTO:** 870550

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thymus

Depletion Lymphoid

Moderate

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

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Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 522

TRT#: 4

SEX: Female

DAY ON TEST: 698

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	Uterus

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Ovary	Periovarn Tiss	Lymphangioma	
Note: [ LYMPHANGIOMA ] TGLs = 1-14			
* Pituitary Gland	Pars Distalis	Congestion	Mild
Note: [ CONGESTION ] TGLs = 2-7			
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 524

TRT#: 4

SEX: Female

DAY ON TEST: 632

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870554

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Pancreas  
Stomach - Forestomach  
Uterus

Bone  
\* Heart  
Intestine Small - Duodenum  
\* Lung  
\* Parathyroid Gland  
\* Thyroid Gland

\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Nose  
\* Salivary Glands  
Trachea

\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Ovary  
Skin  
\* Urinary Bladder

OBSERVATIONS

\* Adrenal Gland  
\* Bone Marrow  
\* Kidney  
\* Liver

Medulla  
Femoral  
Bile Duct

Leukemia Mononuclear  
Leukemia Mononuclear  
Nephropathy  
Hyperplasia  
Leukemia Mononuclear  
Vacuolization Cytoplasmic

Chronic, Minimal  
Moderate  
Marked

Note: [ LEUKEMIA MONUC ] TGLs = 2-4

Lymph Node

Mandibular  
Mediastinal  
Mesenteric

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Hyperplasia  
Cyst  
Leukemia Mononuclear

Cystic, Moderate

Mammary Gland

\* Pituitary Gland

Pars Distalis

\* Spleen

Note: [ LEUKEMIA MONUC ] TGLs = 1-1

Stomach

Glandular

Necrosis

Mild

Note: [ NECROSIS ] TGLs = 3-6

\* Thymus

Depletion Lymphoid

Moderate

Tooth

Dentine, Incisor  
Dentine, Incisor

Dysplasia  
Necrosis

Minimal  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 525

TRT#: 4

SEX: Female

DAY ON TEST: 379

DOSE: SPECIAL CONTROL

DISP: Natural Death

HISTO: 870555

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Jejunum  
\* Ovary  
\* Salivary Glands  
\* Thymus  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
\* Islets, Pancreatic  
\* Pancreas  
Skin  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Parathyroid Gland  
Stomach - Forestomach  
Tooth

\* Bone Marrow  
\* Heart  
Intestine Small - Ileum  
\* Nose  
\* Pituitary Gland  
Stomach - Glandular  
Trachea

OBSERVATIONS

Intestine Large  
Note: [ ADENOCARC ] TGLs = 3-15,4-15

Rectum

Adenocarcinoma

\* Kidney  
\* Liver

Nephropathy  
Basophilic Focus  
Leukemia Mononuclear

Chronic, Mild

Note: [ LEUKEMIA MONUC ] TGLs = 5-4

Lymph Node

Mandibular  
Mesenteric

Leukemia Mononuclear  
Leukemia Mononuclear  
Hyperplasia  
Leukemia Mononuclear  
Leiomyosarcoma

Cystic, Mild

Mammary Gland

\* Spleen

Uterus

Note: [ LEIOMYOSAR ] TGLs = 2-14

PRIMARY CAUSE OF DEATH

-

Animal Note: CAUSE OF DEATH, UTERINE MASS AND RECTAL TUMOR

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 530	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 451
	<b>DOSE:</b> SPECIAL CONTROL	<b>DISP:</b> Special Control	<b>HISTO:</b> 870560

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

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**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
* Pituitary Gland	Pars Distalis	Cyst	
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Moderate

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 532

TRT#: 4

SEX: Female

DAY ON TEST: 402

DOSE: SPECIAL CONTROL

DISP: Natural Death

HISTO: 870562

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Kidney	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Uterus	Trachea	* Urinary Bladder

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Liver		Inflammation	Chronic Active, Minimal
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Adenoma	

Note: [ ADENOMA ] TGLs = 1-7

PRIMARY CAUSE OF DEATH

-

Animal Note: CAUSE OF DEATH UNDETERMINED

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 533

TRT#: 4

SEX: Female

DAY ON TEST: 710

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870563

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

**MISSING**

Esophagus \* Thymus

**OBSERVATIONS**

* Heart	Degeneration	Chronic, Minimal
* Kidney	Nephropathy	Chronic, Mild
* Liver	Basophilic Focus	
	Inflammation	Chronic Active, Mild
Mammary Gland	Fibroadenoma	Multiple
	Hyperplasia	Cystic, Moderate
Note: [ FIBROADENOMA ] TGLs = 1-15,2-14		
Tooth	Dentine, Incisor	Necrosis
		Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 534

TRT#: 4

SEX: Female

DAY ON TEST: 557

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
Skin  
\* Thymus  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Pancreas  
\* Spleen  
\* Thyroid Gland  
Uterus

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Stomach - Forestomach  
Tooth

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver  
  
Note: [ HDN ] TGLs = 4-14  
Mammary Gland  
  
Note: [ FIBROADENOMA ] TGLs = 1-15  
\* Ovary  
Note: [ CYST ] TGLs = 2-16  
\* Pituitary Gland  
Note: [ HYPERPLASIA ] TGLs = 3-7

Degeneration  
Nephropathy  
Hepatodiaphragmatic Nodule  
Inflammation  
  
Fibroadenoma  
Hyperplasia  
  
Cyst  
  
Hyperplasia

Chronic, Mild  
Chronic, Minimal  
  
Chronic Active, Mild  
  
Cystic, Mild  
  
Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL1-15, MAMMARY TUMOR UNDER SKIN

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 535

TRT#: 4

SEX: Female

DAY ON TEST: 726

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870565

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland Harderian GI Note: 82	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
Note: [ HDN ] TGLs = 1-14			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 536

TRT#: 4

SEX: Female

DAY ON TEST: 463

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870566

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder
Uterus			

**OBSERVATIONS**

* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Minimal
Lymph Node	Renal	Pigmentation	Hemosiderin, Mild
Note: [ PIGMENT ] TGLs = 1-14			
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 537

TRT#: 4

SEX: Female

DAY ON TEST: 320

DOSE: SPECIAL CONTROL

DISP: Moribund Sacrifice

HISTO: 870567

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
 \* Clitoral Gland  
 Intestine Large - Colon  
 Intestine Small - Jejunum  
 Lymph Node - Mesenteric  
 \* Pancreas  
 \* Spleen  
 \* Thyroid Gland  
 Uterus

\* Adrenal Gland - Medulla  
 Esophagus  
 Intestine Large - Rectum  
 \* Islets, Pancreatic  
 Mammary Gland  
 \* Parathyroid Gland  
 Stomach - Forestomach  
 Tooth

Bone  
 \* Heart  
 Intestine Small - Duodenum  
 \* Lung  
 \* Nose  
 \* Pituitary Gland  
 Stomach - Glandular  
 Trachea

\* Bone Marrow  
 Intestine Large - Cecum  
 Intestine Small - Ileum  
 Lymph Node - Mandibular  
 \* Ovary  
 \* Salivary Glands  
 \* Thymus  
 \* Urinary Bladder

OBSERVATIONS

\* Brain

Eye

Retina

Lens

Optic Nerve

Compression

Atrophy

Cataract

Schwannoma Malignant

Marked

Moderate

Note: [ ATROPHY ] TGLs = 2-15

Note: [ CATARACT ] TGLs = 2-15

Harderian Gland

Note: [ CARCINOMA ] TGLs = 3-8,3-16

\* Kidney

\* Liver

Nephropathy

Inflammation

Vacuolization Cytoplasmic

Schwannoma Malignant

Chronic, Minimal

Chronic Active, Mild

Moderate

Metastatic (Eye)

Skin

Subcut Tissue

Note: [ SCHWANNOMA MAL ] TGLs = 3-8,3-16

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL1-14,RIGHT EYE NORMAL ON MICRO

Animal Note: MORIBUND SAC DUE TO EYE TUMOR

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 538

TRT#: 4

SEX: Female

DAY ON TEST: 643

DOSE: SPECIAL CONTROL

DISP: Special Control

HISTO: 870568

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

INSUFFICIENT TISSUE

Tooth

OBSERVATIONS

Bone			
Note: UNDECALCIFIED MANDIBLE, INSUFFICIENT TISSUE			
* Clitoral Gland		Hyperplasia	Glandular, Moderate
Note: [ HYPERPLASIA ] TGLs = 5-10			
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: [ ATROPHY ] TGLs = 3-14			
Note: [ CATARACT ] TGLs = 3-14			
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: [ FIBROADENOMA ] TGLs = 2-16,2-17			
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: [ ADENOMA ] TGLs = 4-7			
Skin		Squamous Cell Papilloma	
Note: [ SQ CL PAPILOM ] TGLs = 1-15			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 538

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 643

**DOSE:** SPECIAL CONTROL

**DISP:** Special Control

**HISTO:** 870568

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 541

TRT#: 6

SEX: Female

DAY ON TEST: 460

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870981

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
\* Thyroid Gland  
Uterus

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
Tooth

OBSERVATIONS

\* Adrenal Gland  
\* Heart  
\* Kidney  
Liver  
Mammary Gland  
\* Pituitary Gland

Cortex  
  
  
  
  
Pars Distalis

Hyperplasia  
Degeneration  
Nephropathy  
Basophilic Focus  
Hyperplasia  
Adenoma

Mild  
Chronic, Minimal  
Chronic, Minimal  
  
Cystic, Mild

Note: ADENOMA TGLs = 1-7

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 542

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870982

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Mild
Clitoral Gland		Hyperplasia	Glandular, Mild
Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
		Clear Cell Focus	
Note: [ BASOPH FOCUS ] TGLs = 2-4,2-15			
Mammary Gland		Hyperplasia	Cystic, Mild
Pituitary Gland	Pars Distalis	Congestion	Mild
	Pars Distalis	Hyperplasia	Mild
Spleen		Hyperplasia	Reticulum Cell, Moderate
Note: [ HYPERPLASIA ] TGLs = 1-1,1-14			
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 543

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870983

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Ovary	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Clitoral Gland	Duct	Cyst Inflammation	Chronic Active, Minimal
Note: [ CYST ] TGLs = 1-10			
Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus Eosinophilic Focus Hepatodiaphragmatic Nodule	
Note: [ HDN ] TGLs = 2-14			
Lung		Alveolar/Bronchiolar Adenoma	
Note: [ ALV BRON ADEN ] TGLs = 4-2			
Mammary Gland		Hyperplasia	Cystic, Moderate
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Congestion	Moderate
Note: [ ADENOMA ] TGLs = 3-7			
Thymus		Depletion Lymphoid	Moderate
Thyroid Gland	C Cell	Hyperplasia	Minimal
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 544

TRT#: 6

SEX: Female

DAY ON TEST: 460

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870984

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Parathyroid Gland  
Stomach - Forestomach  
Trachea

\* Adrenal Gland - Medulla  
\* Heart  
Intestine Small - Duodenum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Glandular  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
\* Thymus  
Uterus

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thyroid Gland

**OBSERVATIONS**

Bone  
  
\* Clitoral Gland  
\* Kidney  
Liver

Tibia  
Vertebra

Osteosclerosis  
Osteosclerosis  
Inflammation  
Nephropathy  
Basophilic Focus  
Hepatodiaphragmatic Nodule  
Inflammation  
Leukemia Mononuclear

Minimal  
Minimal  
Chronic Active, Mild  
Chronic, Mild  
  
Chronic Active, Mild

[ Hepatodiaphragmatic Nodule TGLS = 1-14 ]

\* Spleen  
Tooth

Molar, Peridont Tiss

Leukemia Mononuclear  
Inflammation

Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 545

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870985

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Pituitary Gland  
Stomach - Forestomach  
Urinary Bladder

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Salivary Glands  
Stomach - Glandular  
Uterus

Bone  
Esophagus  
Intestine Small - Duodenum  
Lung  
Pancreas  
Skin  
Thyroid Gland

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Parathyroid Gland  
Spleen  
Trachea

**OBSERVATIONS**

Heart  
Kidney  
Liver

Degeneration  
Nephropathy  
Basophilic Focus  
Clear Cell Focus  
Hyperplasia  
Cyst

Chronic, Minimal  
Chronic, Minimal

Mammary Gland  
Ovary  
Note: [ CYST ] TGLs = 1-10

Periovarn Tiss

Depletion Lymphoid  
Dysplasia  
Necrosis

Cystic, Mild  
  
Moderate  
Mild  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 546	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> 25 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 870986

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

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**OBSERVATIONS**

Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
		Clear Cell Focus	
Mammary Gland		Adenoma	
		Hyperplasia	Cystic, Moderate
Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 547

TRT#: 6

SEX: Female

DAY ON TEST: 618

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870987

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Islets, Pancreatic  
Nose  
Pituitary Gland  
Stomach - Forestomach  
Tooth

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Kidney  
Ovary  
Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Heart  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Skin  
Thymus  
Uterus

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Spleen  
Thyroid Gland

OBSERVATIONS

Clitoral Gland  
Note: ADENOMA TGLs = 2-10  
Intestine Large  
Liver  
Note: HYPERPLASIA TGLs = 5-4  
Lung  
Mammary Gland  
Note: FIBROADENOMA TGLs = 1-15,1-16  
Urinary Bladder  
Note: LEIOMYOSAR TGLs = 3-14  
Vagina  
Note: LEIOMYOSAR TGLs = 4-14

Rectum

Adenoma  
Leiomyosarcoma  
Basophilic Focus  
Hyperplasia  
Mineralization  
Fibroadenoma  
Leiomyosarcoma  
Leiomyosarcoma  
Metastatic (Vagina)  
Moderate  
Marked  
Metastatic (Vagina)

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, VAGINAL AND MAMMARY TUMORS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 548

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870988

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 1-7		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 549

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870989

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone Marrow	Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland	Tooth	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Bone	Tibia	Osteosclerosis	Moderate
Clitoral Gland		Hyperplasia	Glandular, Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: [ ATROPHY ] TGLs = 1-14			
Note: [ CATARACT ] TGLs = 1-14			
Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
		Eosinophilic Focus	
		Inflammation	Chronic Active, Mild
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: [ FIBROADENOMA ] TGLs = 2-15			
Pituitary Gland	Pars Distalis	Adenoma	
Note: [ ADENOMA ] TGLs = 3-7			
Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 550

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870990

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: [ CATARACT ] TGLs = 1-18			
Note: [ ATROPHY ] TGLs = 1-18			
Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
		Eosinophilic Focus	
Note: [ EOSIN FOCUS ] TGLs = 6-4,6-14			
Mammary Gland		Adenocarcinoma	Multiple
		Hyperplasia	Cystic, Marked
Note: [ HYPERPLASIA ] TGLs = 2-15			
Note: [ ADENOCARC ] TGLs = 3-17,4-16			
Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
Note: [ ADENOMA ] TGLs = 5-7			
Thymus		Depletion Lymphoid	Marked
Thyroid Gland	C Cell	Hyperplasia	Minimal
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 550

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 25 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870990

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 551

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 184

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870991

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 552

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870992

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Uterus	Trachea	* Urinary Bladder

**OBSERVATIONS**

* Kidney		Nephropathy	Chronic, Minimal
Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
Mammary Gland		Hyperplasia	Cystic, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 553

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870993

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Parathyroid Gland  
Stomach - Forestomach  
Urinary Bladder

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Salivary Glands  
Stomach - Glandular  
Uterus

Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Skin  
Thyroid Gland

Esophagus  
Intestine Small - Duodenum  
Lung  
Ovary  
Spleen  
Trachea

OBSERVATIONS

Adrenal Gland  
Bone  
Clitoral Gland  
Heart  
Kidney  
Liver

Medulla  
Humerus

Hyperplasia  
Fibrous Osteodystrophy  
Inflammation  
Degeneration  
Nephropathy  
Basophilic Focus  
Eosinophilic Focus

Moderate  
Minimal  
Chronic Active, Minimal  
Chronic, Mild  
Chronic, Mild

Note: [ EOSIN FOCUS ] TGLs = 3-4

Mammary Gland

Mesentery

Note: [ INFLAMMATION ] TGLs = 1-14

Pancreas

Pituitary Gland

Fat

Hyperplasia  
Inflammation

Cystic, Mild  
Chronic Active, Mild

Acinus

Pars Intermed

Pars Distalis

Atrophy  
Congestion  
Cyst

Mild  
Moderate

Note: [ CONGESTION ] TGLs = 2-7

Thymus

Tooth

Dentine, Incisor

Depletion Lymphoid  
Necrosis

Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 554

TRT#: 6

SEX: Female

DAY ON TEST: 709

DOSE: 25 PPM

DISP: Natural Death

HISTO: 870994

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Nose	Ovary	Parathyroid Gland	Salivary Glands
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Adrenal Gland	Cortex	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-7		
Brain		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 8-5		
Heart		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5-2,5-3		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
	Pars Distalis	Leukemia Mononuclear	
Note: HYPERPLASIA	TGLs = 7-7		
Note: LEUKEMIA MONUC	TGLs = 6-7		
Skin	Subcut Tiss	Fibroma	
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-14,3-14		
Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 554

**TRT#:** 6  
**DOSE:** 25 PPM

**SEX:** Female  
**DISP:** Natural Death

**DAY ON TEST:** 709  
**HISTO:** 870994

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Dentine, Incisor

Necrosis

Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

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Animal Note: COD, LEUKEMIA MONONUCLEAR

Animal Note: TGL1-10, BROWN FOCUS NOT APPARENT ON CLITORAL

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 555

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 870995

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Pancreas  
\* Spleen  
\* Thyroid Gland

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Stomach - Forestomach  
Tooth

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
Liver  
\* Ovary  
Skin  
\* Thymus  
\* Urinary Bladder

**OBSERVATIONS**

\* Kidney  
Mammary Gland  
\* Nose

\* Pituitary Gland  
Note: CYST      TGLs = 1-7  
Uterus

Pars Distalis  
Endometrium

Nephropathy  
Hyperplasia  
Inflammation  
Metaplasia  
Cyst

Hyperplasia

Chronic, Minimal  
Cystic, Mild  
Chronic Active, Mild  
Squamous, Mild

Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 556

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 185

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870996

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 557

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870997

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Tooth	Trachea	Urinary Bladder	

OBSERVATIONS

Clitoral Gland		Hyperplasia	Glandular, Mild
Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Chronic Active, Moderate
Note: [ HDN ] TGLs = 4-14			
Note: [ CLEAR CL FOCUS ] TGLs = 3-15			
Note: [ INFLAMMATION ] TGLs = 3-15			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: [ FIBROADENOMA ] TGLs = 5-16			
Ovary	Periovarn Tiss	Cyst	
	Periovarn Tiss	Hemorrhage	Moderate
Note: [ HEMORRHAGE ] TGLs = 2-10			
Note: [ CYST ] TGLs = 1-10			
Pituitary Gland	Pars Distalis	Cyst	
Thymus		Depletion Lymphoid	Moderate
Thyroid Gland	C Cell	Hyperplasia	Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 558

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870998

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Adrenal Gland	Cortex	Hypertrophy	Mild
Clitoral Gland		Hyperplasia	Glandular, Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: [ ATROPHY ] TGLs = 1-14			
Note: [ CATARACT ] TGLs = 1-14			
Heart		Degeneration	Chronic, Minimal
		Leukemia Mononuclear	
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
Pituitary Gland	Pars Distalis	Cyst	
Spleen		Leukemia Mononuclear	
Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 559

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 870999

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
		Eosinophilic Focus	
Note: [ EOSIN FOCUS ] TGLs = 4-4,3-14			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: [ FIBROADENOMA ] TGLs = 1-15			
Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Mild
Note: [ ADENOMA ] TGLs = 2-7			
Thymus		Depletion Lymphoid	Marked
Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 560

**TRT#:** 6  
**DOSE:** 25 PPM

**SEX:** Female  
**DISP:** Scheduled Sacrifice

**DAY ON TEST:** 185  
**HISTO:** 871000

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 561

TRT#: 6

SEX: Female

DAY ON TEST: 718

DOSE: 25 PPM

DISP: Natural Death

HISTO: 871001

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Brain	Esophagus
Heart	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach - Forestomach
Thyroid Gland	Trachea	Uterus	

MISSING

Clitoral Gland	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Moderate
Bone Marrow	Femoral	Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Minimal
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
Note: LEUKEMIA MONUC TGLs = 2-4			
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hemorrhage	Mild
	Pars Distalis	Hyperplasia	Mild
Note: ADENOMA TGLs = 4-7			
Note: HYPERPLASIA TGLs = 3-7			
Spleen		Leukemia Mononuclear	
Stomach	Glandular	Pigmentation	Hemosiderin, Mild
Note: PIGMENT TGLs = 5-14			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 561	<b>TRT#:</b> 6 <b>DOSE:</b> 25 PPM	<b>SEX:</b> Female <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 718 <b>HISTO:</b> 871001
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Thymus Note: LEUKEMIA MONUC TGLs = 1-2		Leukemia Mononuclear	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

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**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 562

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 184

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 871002

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 563

TRT#: 6

SEX: Female

DAY ON TEST: 451

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 871003

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Glandular  
Trachea

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Mammary Gland  
Salivary Glands  
Thymus  
Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
Lung  
Ovary  
Skin  
Thyroid Gland  
Uterus

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Stomach - Forestomach  
Tooth

**OBSERVATIONS**

Heart  
Kidney  
Liver  
  
Note: HDN      TGLs = 1-4,2-14  
Nose  
  
Pituitary Gland  
Spleen

Bile Duct

Mucosa

Pars Distalis

Degeneration  
Nephropathy  
Hepatodiaphragmatic Nodule  
Hyperplasia  
Leukemia Mononuclear  
  
Inflammation  
Metaplasia  
Hyperplasia  
Leukemia Mononuclear

Chronic, Minimal  
Chronic, Moderate  
  
Mild  
  
Chronic Active, Mild  
Squamous, Mild  
Mild

**PRIMARY CAUSE OF DEATH**

-

Animal Note: MORIBUND SACRIFICE DUE TO EARLY LEUKEMIA

Animal Note: TGL3-15,4-15, NCL, FOCAL AUTOLYSIS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 564

TRT#: 6

SEX: Female

DAY ON TEST: 582

DOSE: 25 PPM

DISP: Natural Death

HISTO: 871004

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Tooth	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Adrenal Gland	Cortex	Hyperplasia	Mild
Brain		Compression	
		Hydrocephalus	Mild
Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 1-7		
Thymus		Depletion Lymphoid	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, PITUITARY TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 565

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871005

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach - Glandular
Thyroid Gland	Tooth	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Kidney		Nephropathy	Chronic, Marked
Liver		Basophilic Focus	
		Vacuolization Cytoplasmic	Mild
Lung	Alveolar Epith	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
Ovary	Periovarn Tiss	Cyst	
Note: CYST	TGLs = 1-10		
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA	TGLs = 2-7		
Stomach	Forestomach	Acanthosis	Moderate
	Forestomach	Ulcer	Moderate
Note: ULCER	TGLs = 3-14		
Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 566

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871006

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Liver	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder		

**OBSERVATIONS**

Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Moderate
Mammary Gland		Fibroadenoma	
Note: [ FIBROADENOMA ] TGLs = 1-14			
Pituitary Gland	Pars Intermed	Adenoma	
	Pars Distalis	Cyst	
Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 567

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871007

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lymph Node - Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
Pituitary Gland	Pars Distalis	Cyst	
Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-14 ]			
Thymus		Depletion Lymphoid	Mild
Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Marked
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Moderate
		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 568

TRT#: 6

SEX: Female

DAY ON TEST: 639

DOSE: 25 PPM

DISP: Natural Death

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Intestine Large - Cecum  
Intestine Small - Ileum  
Parathyroid Gland  
Thyroid Gland

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Salivary Glands  
Trachea

Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Skin  
Urinary Bladder

Esophagus  
Intestine Small - Duodenum  
Nose  
Stomach - Glandular  
Uterus

OBSERVATIONS

Adrenal Gland  
Bone  
  
Clitoral Gland  
Heart  
Note: LEUKEMIA MONUC TGLs = 8-4

Medulla  
Humerus  
Thoracic, Vertebra  
Tibia

Leukemia Mononuclear  
Osteosclerosis  
Osteosclerosis  
Osteosclerosis  
Inflammation  
Leukemia Mononuclear

Moderate  
Minimal  
Minimal  
Chronic Active, Mild

Kidney

Leukemia Mononuclear  
Nephropathy  
Hyperplasia  
Leukemia Mononuclear

Chronic, Mild  
Moderate

Liver  
  
Note: LEUKEMIA MONUC TGLs = 4-4

Bile Duct

Leukemia Mononuclear

Lung  
Note: LEUKEMIA MONUC TGLs = 5-2,5-3

Lymph Node  
  
[ Leukemia Mononuclear TGLs = 1-5,1-15,3-6 ]

Mandibular  
Mediastinal  
Mesenteric

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear

Cystic, Marked

Mammary Gland  
Ovary  
Pancreas  
Note: LEUKEMIA MONUC TGLs = 7-14

Hyperplasia  
Leukemia Mononuclear  
Leukemia Mononuclear

Pituitary Gland  
Note: LEUKEMIA MONUC TGLs = 6-7

Pars Distalis

Leukemia Mononuclear

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 568	<b>TRT#:</b> 6 <b>DOSE:</b> 25 PPM	<b>SEX:</b> Female <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 639 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Spleen Note: LEUKEMIA MONUC TGLs = 2-1		Leukemia Mononuclear	
Stomach Note: ULCER TGLs = 9-6	Forestomach	Ulcer	Moderate
Thymus		Leukemia Mononuclear	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
<b>PRIMARY CAUSE OF DEATH</b>	-		
Animal Note: COD, LEUKEMIA MONONUCLEAR			

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 569

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 184

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 871009

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 570

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 184

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 871010

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 571

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871011

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone Marrow	Brain	Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lung	Lymph Node - Mesenteric	Nose	Ovary
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Mild
Bone	Tibia	Osteosclerosis	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: [ CATARACT ] TGLs = 1-14			
Note: [ ATROPHY ] TGLs = 1-14			
Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
Lymph Node	Mandibular	Congestion	Moderate
Note: [ CONGESTION ] TGLs = 3-5,3-7			
Mammary Gland		Hyperplasia	Cystic, Moderate
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	Multiple
	Pars Distalis	Congestion	Moderate
	Pars Distalis	Cyst	
Note: [ ADENOMA ] TGLs = 2-7			
Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 572

TRT#: 6

SEX: Female

DAY ON TEST: 715

DOSE: 25 PPM

DISP: Natural Death

HISTO: 871012

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Brain	Clitoral Gland	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lung
Nose	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Stomach - Forestomach	Thyroid Gland
Tooth	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Gland	Cortex	Necrosis	Moderate
Bone	Humerus	Osteosclerosis	Moderate
	Thoracic, Vertebra	Osteosclerosis	Moderate
	Tibia	Osteosclerosis	Moderate
Bone Marrow	Femoral	Myelofibrosis	Moderate
Heart		Degeneration	Chronic, Minimal
		Thrombosis	
Kidney		Nephropathy	Chronic, Minimal
Liver	Centrilobular	Necrosis	Moderate
		Vacuolization Cytoplasmic	Moderate
Lymph Node	Mesenteric	Infiltration Cellular	Histiocyte, Mild
	Mandibular	Necrosis	Moderate
Note: INFILTRAT CELL TGLs = 2-6			
Mammary Gland		Hyperplasia	Cystic, Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Spleen	Red Pulp	Atrophy	Marked
		Depletion Lymphoid	Moderate
Stomach	Glandular	Pigmentation	Mild
	Glandular	Ulcer	Mild
Note: [ PIGMENT ] TGLs = 1-6,1-14			
Thymus		Depletion Lymphoid	Marked

PRIMARY CAUSE OF DEATH

-

Animal Note: AND WOVEN BONE.

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 572

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 715

**DOSE:** 25 PPM

**DISP:** Natural Death

**HISTO:** 871012

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: THE SCLEROSIS IS ASSOCIATED WITH MYELOFIBROSIS

Animal Note: COD, UNDETERMINED ( POSSIBLE LEUKEMIA )

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 573

TRT#: 6

SEX: Female

DAY ON TEST: 631

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 871013

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Islets, Pancreatic	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Adrenal Gland Note: VACUOLIZ CYTO TGLs = 6-7	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Brain		Compression Hydrocephalus	Moderate
Eye Note: ATROPHY TGLs = 1-17 Note: CATARACT TGLs = 1-17	Retina Lens	Atrophy Cataract	Marked Moderate
Heart		Degeneration	Chronic, Moderate
Intestine Small	Jejunum	Inflammation	Chronic, Mild
Kidney Note: NEPHROPATHY TGLs = 5-1		Nephropathy	Chronic, Marked
Liver		Basophilic Focus Vacuolization Cytoplasmic Fibroadenoma	Moderate Multiple
Mammary Gland Note: FIBROADENOMA TGLs = 2-16,3-15,4-14		Adenoma	
Pituitary Gland Note: ADENOMA TGLs = 8-7	Pars Distalis		
Thymus		Depletion Lymphoid	Moderate
Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 573

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 631

**DOSE:** 25 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 871013

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: TGL7-4, LIVER SIZE WITHIN NORMAL LIMITS.

Animal Note: MORIBUND SAC DUE TO MAMMARY TUMORS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 574

TRT#: 6

SEX: Female

DAY ON TEST: 677

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 871014

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Bone Marrow	Femoral	Leukemia Mononuclear	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
Heart		Degeneration	Chronic, Mild
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-7,5-6		
Mammary Gland		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 6-10		
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	
Note: ADENOMA	TGLs = 2-7		
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-1 ]			
Stomach	Forestomach	Acanthosis	Moderate
Thymus		Depletion Lymphoid	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 574

**TRT#:** 6  
**DOSE:** 25 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 677  
**HISTO:** 871014

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor	Necrosis	Multifocal, Mild
Uterus		Leukemia Mononuclear	

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL6-10, LESION IS DUE TO MAMMARY GLAND HYPERPLASIA

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 575

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 871015

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thymus	Tooth	Trachea
* Urinary Bladder	Uterus		

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
Liver	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	
Note: ADENOMA TGLs = 1-7			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 576

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871016

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone Marrow	Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lung
Lymph Node - Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Tooth	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Gland	Cortex	Hypertrophy	Mild
Bone	Thoracic, Vertebra	Osteosclerosis	Moderate
	Tibia	Osteosclerosis	Moderate
Clitoral Gland	Duct	Cyst	
		Inflammation	Chronic Active, Minimal
Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
		Inflammation	Chronic Active, Minimal
Lymph Node	Mandibular	Congestion	Mild
Note: [ CONGESTION ] TGLs = 1-5,1-7			
Mammary Gland		Hyperplasia	Cystic, Moderate
Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 577

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871017

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
		Clear Cell Focus	
		Congestion	Mild
		Leukemia Mononuclear	
Note: [ CONGESTION ] TGLs = 3-4			
Mammary Gland		Hyperplasia	Cystic, Moderate
Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
Pituitary Gland	Pars Distalis	Cyst	
Spleen		Leukemia Mononuclear	
Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild
		Polyp Stromal	

Note: [ POLYP STROMAL ] TGLs = 2-14

PRIMARY CAUSE OF DEATH -

Animal Note: TGL1-10, CLITORAL FOCUS NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 578

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871018

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lung	Lymph Node - Mandibular	Nose	Ovary
Parathyroid Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Brain		Compression	
		Hydrocephalus	Mild
Clitoral Gland		Hyperplasia	Glandular, Moderate
Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: [ FIBROADENOMA ] TGLs = 1-15			
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
Note: [ ADENOMA ] TGLs = 3-7			
Spleen		Leukemia Mononuclear	
Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 579

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871019

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
Clitoral Gland	Bilateral	Carcinoma	
Note: [ CARCINOMA ] TGLs = 1-15			
Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Minimal
Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Chronic Active, Mild
Note: [ CLEAR CL FOCUS ] TGLs = 2-14			
Mammary Gland		Hyperplasia	Cystic, Marked
Pituitary Gland	Pars Distalis	Cyst	
Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 580

TRT#: 6

SEX: Female

DAY ON TEST: 460

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 871020

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Liver  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

**OBSERVATIONS**

\* Clitoral Gland  
\* Heart  
\* Kidney

Inflammation  
Degeneration  
Nephropathy

Chronic Active, Mild  
Chronic, Minimal  
Chronic, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: THORACIC VERT. INSUFFICIENT TISSUE

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 581

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 719

**DOSE:** 25 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 871021

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Liver		Inflammation	Chronic Active, Minimal
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA	TGLs = 1-14		
Nose	Mucosa	Inflammation	Chronic Active, Mild
Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
Note: CYST	TGLs = 2-7		
Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 582

TRT#: 6

SEX: Female

DAY ON TEST: 719

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 871022

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Clitoral Gland		Hyperplasia	Glandular, Mild
Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Minimal
Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
Lung	Alveolar Epith	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Skin	Subcut Tiss	Inflammation	Chronic Active, Marked
		Ulcer	Moderate
Note: INFLAMMATION	TGLs = 1-14,2-15,2-16		
Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO SUBCUTANEOUS INFLAMMATION

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 583

TRT#: 6

SEX: Female

DAY ON TEST: 719

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 871023

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Tooth	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Kidney		Nephropathy	Chronic, Mild
Liver		Hepatodiaphragmatic Nodule	
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
Note: HDN TGLs = 2-14			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 1-15			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
	Pars Distalis	Cyst	
Note: ADENOMA TGLs = 3-7			
Spleen		Leukemia Mononuclear	
Thymus		Depletion Lymphoid	Mild
Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY MASS AND LEUKEMIA

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 584

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871024

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Ovary	Parathyroid Gland	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Adrenal Gland	Cortex	Hypertrophy	Mild
Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Minimal
Liver		Basophilic Focus	
		Clear Cell Focus	
		Leukemia Mononuclear	
Lung	Alveolar Epith	Hyperplasia	Minimal
Mammary Gland		Hyperplasia	Cystic, Moderate
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	
	Pars Distalis	Hemorrhage	Moderate
Note: [ HEMORRHAGE ] TGLs = 1-7			
Spleen		Leukemia Mononuclear	
Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 585

TRT#: 6

SEX: Female

DAY ON TEST: 565

DOSE: 25 PPM

DISP: Natural Death

HISTO: 871025

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Mild
Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
Note: HDN	TGLs = 1-14		
Mammary Gland		Hyperplasia	Cystic, Mild
Thyroid Gland	C Cell	Adenoma	
Tooth	Incisor, Lower, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-7, NO FOCUS APPARENT ON MICRO

Animal Note: COD, UNDETERMINED

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 586

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871026

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone Marrow	Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland	Trachea	Urinary Bladder	

**OBSERVATIONS**

Adrenal Gland	Cortex	Hypertrophy	Minimal
Bone	Humerus	Osteosclerosis	Minimal
Clitoral Gland		Inflammation	Chronic Active, Mild
Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
Note: [ BASOPH FOCUS ] TGLs = 1-4			
Mammary Gland		Hyperplasia	Cystic, Moderate
Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-14, LIVER FOCUS NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 587

TRT#: 6

SEX: Female

DAY ON TEST: 659

DOSE: 25 PPM

DISP: Natural Death

HISTO: 871027

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Salivary Glands  
Stomach - Glandular

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Skin  
Thyroid Gland

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Trachea

OBSERVATIONS

Brain  
Note: COMPRESSION TGLs = 3-14  
Heart  
Kidney  
Mammary Gland  
Note: FIBROADENOMA TGLs = 1-15  
Pituitary Gland  
Note: ADENOMA TGLs = 4-7  
Thymus  
Tooth  
Uterus  
Note: ADENOMA TGLs = 2-10

Pars Distalis  
Dentine, Incisor

Compression  
Degeneration  
Nephropathy  
Fibroadenoma  
Hyperplasia  
Adenoma  
Depletion Lymphoid  
Dysplasia  
Adenoma  
Chronic, Minimal  
Chronic, Mild  
Cystic, Moderate  
Mild  
Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, PITUITARY TUMOR

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 588

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871028

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Skin  
Thyroid Gland

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Lung  
Ovary  
Spleen  
Trachea

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Stomach - Forestomach  
Urinary Bladder

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Salivary Glands  
Stomach - Glandular  
Uterus

**MISSING**

Parathyroid Gland

**OBSERVATIONS**

Bone	Thoracic, Vertebra Tibia	Osteosclerosis Osteosclerosis	Minimal Mild
Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Minimal
Liver		Basophilic Focus Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
Pituitary Gland	Pars Distalis	Cyst	
Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 589

TRT#: 6

SEX: Female

DAY ON TEST: 677

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 871029

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone Marrow	Brain	Clitoral Gland	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Nose	Ovary
Parathyroid Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Moderate
	Medulla	Pheochromocytoma Benign	
Note: PHEOCHROM BGN TGLs = 8-7			
Note: HYPERPLASIA TGLs = 8-7			
Bone	Humerus	Osteosclerosis	Minimal
	Thoracic, Vertebra	Osteosclerosis	Mild
	Tibia	Osteosclerosis	Mild
Heart		Degeneration	Chronic, Mild
Intestine Small	Duodenum	Necrosis	Mild
Kidney		Inflammation	Acute, Focal, Moderate
		Nephropathy	Chronic, Minimal
[ Nephropathy TGLS = 9-17 ]			
Liver	Bile Duct	Hyperplasia	Mild
		Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: HYPERPLASIA TGLs = 6-4			
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-7,3-14,4-18,7-6			
Mammary Gland		Hyperplasia	Cystic, Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 589

TRT#: 6

SEX: Female

DAY ON TEST: 677

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 871029

**ORGAN AND ACCOUNTABLE SITE STATUS**

Pancreas		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Cyst	
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-15			
Thymus		Leukemia Mononuclear	
Tooth	Dentine, Incisor	Dysplasia	Mild
Uterus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

Animal Note: TGL1-16, PIGMENT NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 590

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871030

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Pancreas	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

MISSING

Parathyroid Gland

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Minimal
Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
		Eosinophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
Ovary	Periovarn Tiss	Cyst	
Note: [ CYST ] TGLs = 1-10			
Pituitary Gland	Pars Distalis	Cyst	
Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 591

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871031

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	Urinary Bladder	

OBSERVATIONS

Clitoral Gland		Hyperplasia	Glandular, Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: [ CATARACT ] TGLs = 1-14			
Note: [ ATROPHY ] TGLs = 1-14			
Heart		Degeneration	Chronic, Minimal
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: [ FIBROADENOMA ] TGLs = 2-15			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
	Pars Distalis	Cyst	
Note: [ ADENOMA ] TGLs = 3-7			
Thymus		Depletion Lymphoid	Moderate
Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 592

TRT#: 6

SEX: Female

DAY ON TEST: 620

DOSE: 25 PPM

DISP: Moribund Sacrifice

HISTO: 871032

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Nose	Ovary	Parathyroid Gland
Salivary Glands	Skin	Stomach - Glandular	Thyroid Gland
Trachea			

MISSING

Clitoral Gland

OBSERVATIONS

Adrenal Gland	Cortex	Hypertrophy	Mild
	Medulla	Leukemia Mononuclear	
Bone	Humerus	Osteosclerosis	Minimal
	Tibia	Osteosclerosis	Mild
Bone Marrow	Femoral	Leukemia Mononuclear	
Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Minimal
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC	TGLs = 5-4		
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6-2,6-3		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Cyst	
Spleen	Capsule	Fibrosis	Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-14		
Note: FIBROSIS	TGLs = 4-14		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 592

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 620

**DOSE:** 25 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 871032

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Stomach	Forestomach	Acanthosis	Moderate
Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Urinary Bladder		Dilatation	Marked
Note: DILATATION	TGLs = 1-6		
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Moderate
		Polyp Stromal	
Note: POLYP STROMAL	TGLs = 2-10		

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 593

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871033

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Pituitary Gland  
Stomach - Forestomach  
Trachea

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Lung  
Ovary  
Salivary Glands  
Stomach - Glandular  
Urinary Bladder

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Skin  
Thyroid Gland

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Spleen  
Tooth

OBSERVATIONS

Bone  
Eye  
  
Note: [ CATARACT ] TGLs = 1-14  
Note: [ ATROPHY ] TGLs = 1-14  
  
Heart  
Kidney  
Liver  
  
Mammary Gland  
Thymus  
Uterus  
  
Note: [ CYST ] TGLs = 2-15

Thoracic, Vertebra  
Retina  
Lens  
  
  
  
  
  
  
  
  
  
Cervix

Osteosclerosis  
Atrophy  
Cataract  
  
Degeneration  
Nephropathy  
Basophilic Focus  
Inflammation  
Hyperplasia  
Depletion Lymphoid  
Cyst

Minimal  
Marked  
Moderate  
  
Chronic, Minimal  
Chronic, Mild  
  
Chronic Active, Mild  
Cystic, Moderate  
Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 594

TRT#: 6

SEX: Female

DAY ON TEST: 460

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 871034

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	* Clitoral Gland
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Angiectasis	Moderate
	Medulla	Angiectasis	Moderate
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Mild
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
* Kidney		Nephropathy	Chronic, Minimal
Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Chronic Active, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 595

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 185

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 871035

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 596

TRT#: 6

SEX: Female

DAY ON TEST: 696

DOSE: 25 PPM

DISP: Natural Death

HISTO: 871036

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lung
Lymph Node - Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Adrenal Gland	Cortex	Accessory Adrenal Cortical Nodule	
	Cortex	Hyperplasia	Mild
Note: 1991 CONVERSION DISCREPANCY. ORIGINAL DIAGNOSIS SITE NOT SPECIFIED.			
Note: [ ACC ADR COR ND ] TGLs = 6-7			
Clitoral Gland		Inflammation	Chronic Active, Mild
Heart		Degeneration	Chronic, Moderate
Kidney		Nephropathy	Chronic, Mild
Liver		Hepatodiaphragmatic Nodule	
Note: HDN	TGLs = 4-14,5-4		
Lymph Node	Mandibular	Congestion	Moderate
	Mediastinal	Congestion	Moderate
Note: CONGESTION	TGLs = 1-5,2-2		
Mammary Gland		Hyperplasia	Cystic, Moderate
Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 3-7		
Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, PITUITARY TUMOR

Animal Note: TGL7-15, WITHIN NORMAL LIMITS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 597

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871037

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone Marrow	Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland	Trachea	Urinary Bladder	

**OBSERVATIONS**

Bone	Tibia	Osteosclerosis	Mild
Clitoral Gland	Duct	Cyst	
Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Moderate
Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Dysplasia	Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 598

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871038

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach - Forestomach	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Clitoral Gland		Inflammation	Chronic Active, Minimal
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Lung	Alveolar Epith	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Marked
Note: [ HYPERPLASIA ] TGLs = 1-15			
Pituitary Gland	Pars Distalis	Cyst	
	Pars Intermed	Cyst	
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-14 ]			
Stomach	Glandular	Erosion	Mild
Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 598

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 25 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 871038

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: TGL3-7, SKIN LESION NOT APPARENT ON MICRO

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 599

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 185

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 871039

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

---

**ANIMAL ID:** 600

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 185

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 871040

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 601

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871041

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland	Tooth	Trachea	Urinary Bladder
Uterus			

**OBSERVATIONS**

Adrenal Gland	Cortex	Hyperplasia	Mild
Heart		Degeneration	Chronic, Mild
Kidney		Mast Cell Tumor Malignant	
		Nephropathy	Chronic, Mild
Note: [ MAST CL TM MAL ] TGLs = 1-14			
Liver		Angiectasis	Mild
		Basophilic Focus	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: [ FIBROADENOMA ] TGLs = 2-7			
Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Thymus		Depletion Lymphoid	Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 602

TRT#: 6

SEX: Female

DAY ON TEST: 702

DOSE: 25 PPM

DISP: Natural Death

HISTO: 871042

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Ovary	Pancreas	Salivary Glands
Skin	Stomach - Forestomach	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

MISSING

Parathyroid Gland

OBSERVATIONS

Clitoral Gland		Carcinoma	
Note: CARCINOMA	TGLs = 1-10,1-14		
Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Minimal
Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Mild
Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 4-7		
Spleen		Hematopoietic Cell Proliferation	Marked
[ Hematopoietic Cell Proliferation TGLS = 2-1 ]			
Stomach	Glandular	Necrosis	Mild
Note: NECROSIS	TGLs = 5-6		
Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-4, LIVER WITHIN NORMAL LIMITS ON MICRO

Animal Note: TGL1-10, IS A CLITORAL GLAND TUMOR, NOT A SKIN MASS

Animal Note: COD, PITUITARY AND CLITORAL GLAND TUMORS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 603

TRT#: 6

SEX: Female

DAY ON TEST: 704

DOSE: 25 PPM

DISP: Natural Death

HISTO: 871043

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Clitoral Gland	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Nose
Salivary Glands	Skin	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder		

MISSING

Parathyroid Gland

OBSERVATIONS

Adrenal Gland	Cortex	Degeneration	Cystic, Mild
	Medulla	Leukemia Mononuclear	
Bone Marrow	Femoral	Leukemia Mononuclear	
Heart		Degeneration	Chronic, Minimal
Kidney		Leukemia Mononuclear	
Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: HDN	TGLs = 10-17		
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-7,9-6		
Mammary Gland		Hyperplasia	Cystic, Mild
Mesentery		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 7-6		
Ovary	Periovarn Tiss	Cyst	
		Leukemia Mononuclear	
Note: CYST	TGLs = 5-10		
Note: LEUKEMIA MONUC	TGLs = 6-15		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 603

TRT#: 6

SEX: Female

DAY ON TEST: 704

DOSE: 25 PPM

DISP: Natural Death

HISTO: 871043

ORGAN AND ACCOUNTABLE SITE STATUS

Pancreas		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-6		
Pituitary Gland	Pars Distalis	Leukemia Mononuclear	
Skeletal Muscle		Leukemia Mononuclear	
		Necrosis	Marked
Note: NECROSIS	TGLs = 11-18		
Note: LEUKEMIA MONUC	TGLs = 11-18		
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-14		
Stomach	Forestomach	Ulcer	Moderate
Note: ULCER	TGLs = 14-19		
Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus		Leukemia Mononuclear	
Vagina		Exudate	
Note: EXUDATE	TGLs = 8-16		

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

Animal Note: TGL12-6, BLACK PIGMENT IN GLANDULAR STOMACH

Animal Note: NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 604

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871044

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone Marrow	Brain
Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Tooth	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Bone	Thoracic, Vertebra	Osteosclerosis	Minimal
	Tibia	Osteosclerosis	Mild
Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
Ovary	Periovarn Tiss	Cyst	
		Infiltration Cellular	Lymphocyte, Moderate
Note: [ CYST ] TGLs = 1-10			
Pharynx	Palate	Squamous Cell Papilloma	
Note: [ SQ CL PAPILLOM ] TGLs = 3-8			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Mild
	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
Note: [ ADENOMA ] TGLs = 2-7			
Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 605

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871045

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: [ CATARACT ] TGLs = 1-14			
Note: [ ATROPHY ] TGLs = 1-14			
Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Marked
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
Note: [ ADENOMA ] TGLs = 2-7			
Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 606

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 871046

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Trachea	* Urinary Bladder		

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
Tooth	Molar, Peridont Tiss	Inflammation	Suppurative, Moderate
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Moderate

Note: HYPERPLASIA TGLs = 1-10

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 607

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871047

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Salivary Glands  
Stomach - Glandular  
Uterus

Bone  
Esophagus  
Intestine Small - Duodenum  
Lung  
Ovary  
Skin  
Thyroid Gland

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Trachea

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach  
Urinary Bladder

**MISSING**

Thymus

**OBSERVATIONS**

Adrenal Gland  
Heart  
Kidney  
Liver  
Note: [ INFLAMMATION ] TGLs = 2-14  
Mammary Gland  
Pituitary Gland  
Note: [ ADENOMA ] TGLs = 1-7  
Tooth

Cortex  
  
  
  
  
Pars Distalis  
Pars Distalis  
  
Dentine, Incisor

Hyperplasia  
Degeneration  
Nephropathy  
Inflammation  
  
Hyperplasia  
Adenoma  
Congestion  
  
Necrosis

Mild  
Chronic, Mild  
Chronic, Moderate  
Chronic Active, Marked  
  
Cystic, Marked  
  
Marked  
  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 608

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 185

**DOSE:** 25 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 871048

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 609

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 25 PPM

DISP: Scheduled Sacrifice

HISTO: 871049

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

* Kidney		Nephropathy	Chronic, Minimal
Liver		Basophilic Focus	
		Inflammation	Chronic Active, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 610

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 25 PPM

DISP: Terminal Sacrifice

HISTO: 871050

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Mild
Clitoral Gland		Inflammation	Chronic Active, Minimal
Heart		Degeneration	Chronic, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: [ FIBROADENOMA ] TGLs = 1-14			
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:21  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 611

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 184

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870841

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 612

TRT#: 8

SEX: Female

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870842

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
Tooth

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Trachea

Bone  
\* Heart  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thyroid Gland  
Uterus

MISSING

\* Thymus

OBSERVATIONS

\* Clitoral Gland  
Note: CYST      TGLs = 1-10  
\* Kidney  
\* Liver  
Mammary Gland

Duct

Cyst

Nephropathy  
Inflammation  
Hyperplasia

Chronic, Minimal  
Chronic Active, Mild  
Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 613

TRT#: 8

SEX: Female

DAY ON TEST: 662

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870843

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mesenteric	* Nose	* Ovary	* Salivary Glands
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Clitoral Gland		Hyperplasia	Glandular, Mild
Harderian Gland		Fibrosarcoma	Metastatic (Skin)
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Congestion	Mild
		Inflammation	Chronic Active, Mild
Note: CONGESTION TGLs = 4-4			
* Lung		Fibrosarcoma	Metastatic (Skin)
Note: FIBROSARC TGLs = 5-2,5-3,5-14,5-15			
Lymph Node	Mandibular	Fibrosarcoma	Metastatic (Skin)
Note: FIBROSARC TGLs = 2-7			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Parathyroid Gland		Adenoma	
* Pituitary Gland	Pars Distalis	Cyst	
Skin	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC TGLs = 1-16			
* Thymus		Depletion Lymphoid	Mild
Uterus		Polyp Stromal	
Note: POLYP STROMAL TGLs = 3-10			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:21

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 613

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 662

**DOSE:** 100 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870843

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: SARCOMA IS PRESENT ADJACENT TO MAXILLA AND

Animal Note: CALVARIUM, WITH FOCAL INVASION INTO BONE

Animal Note: MORIBUND SAC DUE TO SKIN TUMOR ON FACE

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 614

TRT#: 8

SEX: Female

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870844

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Ovary  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Pancreas  
\* Spleen  
\* Thyroid Gland  
Uterus

\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
Stomach - Forestomach  
Tooth

**OBSERVATIONS**

Bone  
\* Pituitary Gland

Tibia  
Pars Distalis

Osteosclerosis  
Hyperplasia

Minimal  
Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 615

TRT#: 8

SEX: Female

DAY ON TEST: 663

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870845

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Clitoral Gland	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mesenteric	* Ovary
* Parathyroid Gland	* Spleen	Tooth	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Brain		Histiocytic Sarcoma	Metastatic (Skin)
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-16,2-16		
Note: CATARACT	TGLs = 1-16,2-16		
* Kidney		Nephropathy	Chronic, Mild
* Liver		Vacuolization Cytoplasmic	Moderate
* Lung		Histiocytic Sarcoma	Metastatic (Skin)
Lymph Node	Mandibular	Histiocytic Sarcoma	Metastatic (Skin)
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery		Histiocytic Sarcoma	Metastatic (Skin)
* Nose		Histiocytic Sarcoma	Metastatic (Skin)
Note: HISTIO SARC	TGLs = 8-18		
* Pancreas		Histiocytic Sarcoma	Metastatic (Skin)
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 4-7		
* Salivary Glands		Histiocytic Sarcoma	Metastatic (Skin)
Skin	Subcut Tiss	Histiocytic Sarcoma	
Note: HISTIO SARC	TGLs = 3-17,5-15		
Stomach	Glandular	Necrosis	Mild
	Forestomach	Ulcer	Moderate
Note: NECROSIS	TGLs = 7-14		
Note: ULCER	TGLs = 6-6,6-14		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 615	<b>TRT#:</b> 8 <b>DOSE:</b> 100 PPM	<b>SEX:</b> Female <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 663 <b>HISTO:</b> 870845
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	

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PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO SKIN TUMOR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 616

TRT#: 8

SEX: Female

DAY ON TEST: 647

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870846

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
Tooth

\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Trachea

OBSERVATIONS

\* Adrenal Gland  
\* Clitoral Gland  
Note: ADENOMA TGLs = 1-14  
\* Heart  
\* Kidney  
\* Liver  
Mammary Gland  
\* Thymus  
Uterus  
  
Note: POLYP STROMAL TGLs = 2-10

Medulla  
  
  
  
  
  
  
Endometrium

Hyperplasia  
Adenoma  
  
Degeneration  
Nephropathy  
Basophilic Focus  
Hyperplasia  
Depletion Lymphoid  
Hyperplasia  
Polyp Stromal

Mild  
  
  
Chronic, Minimal  
Chronic, Minimal  
  
Cystic, Marked  
Mild  
Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO CLITORAL GLAND MASS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 617

TRT#: 8

SEX: Female

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870847

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-14			
Note: ATROPHY TGLs = 1-14			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Hepatodiaphragmatic Nodule	
		Inflammation	Chronic Active, Moderate
Note: HDN TGLs = 2-15			
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 618

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870848

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Congestion	Mild
Note: CONGESTION	TGLs = 4-4		
* Lung		Inflammation	Chronic Active, Mild
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA	TGLs = 2-16		
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Mild
Note: ADENOMA	TGLs = 3-7		
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 618

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870848

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 619

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 185

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870849

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 620

TRT#: 8

SEX: Female

DAY ON TEST: 568

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870850

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular  
Uterus

Bone  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
\* Nose  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Ovary  
\* Spleen  
Trachea

OBSERVATIONS

\* Brain  
\* Kidney  
Mammary Gland  
\* Pancreas  
\* Pituitary Gland  
    Note: ADENOMA      TGLs = 1-7  
\* Thymus  
Tooth

Acinus  
Pars Distalis  
  
Dentine, Incisor

Compression  
Nephropathy  
Hyperplasia  
Atrophy  
Adenoma  
  
Depletion Lymphoid  
Necrosis

Chronic, Moderate  
Cystic, Moderate  
Mild  
  
Mild  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, PITUITARY TUMOR

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 621

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870851

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Clitoral Gland		Adenoma	
Note: ADENOMA TGLs = 1-16			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
Note: CLEAR CL FOCUS TGLs = 4-15		Hepatodiaphragmatic Nodule	
Note: HDN TGLs = 3-4,2-14			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
	Pars Distalis	Hyperplasia	Moderate
Note: ADENOMA TGLs = 5-7			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 622

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870852

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Clitoral Gland
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	Skin
* Spleen	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Brain		Compression	
		Hydrocephalus	Moderate
Note: COMPRESSION TGLs = 5-5			
* Kidney		Nephropathy	Chronic, Mild
* Liver	Centrilobular	Hepatodiaphragmatic Nodule	
		Necrosis	Moderate
		Vacuolization Cytoplasmic	Moderate
Note: HDN TGLs = 2-4			
Note: NECROSIS TGLs = 3-4			
* Lung	Alveolar Epith	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Marked
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
Note: ADENOMA TGLs = 4-7			
* Salivary Glands	Acinus	Atrophy	Mild
Stomach	Forestomach	Acanthosis	Mild
Note: ACANTHOSIS TGLs = 6-14			
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 622

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870852

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: TGL5-5, BRAIN COMPRESSION DUE TO AGGRESSIVE

Animal Note: TGL1-10, IS MAMMARY GLAND AROUND CLITORAL GLD.

Animal Note: PITUITARY TUMOR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 623

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870853

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
 \* Clitoral Gland  
 Intestine Large - Colon  
 Intestine Small - Jejunum  
 Lymph Node - Mesenteric  
 \* Salivary Glands  
 Stomach - Glandular  
 \* Urinary Bladder

\* Adrenal Gland - Medulla  
 Esophagus  
 Intestine Large - Rectum  
 \* Islets, Pancreatic  
 \* Ovary  
 Skin  
 \* Thyroid Gland  
 Uterus

\* Bone Marrow  
 \* Heart  
 Intestine Small - Duodenum  
 \* Lung  
 \* Pancreas  
 \* Spleen  
 Tooth

\* Brain  
 Intestine Large - Cecum  
 Intestine Small - Ileum  
 Lymph Node - Mandibular  
 \* Parathyroid Gland  
 Stomach - Forestomach  
 Trachea

OBSERVATIONS

Bone	Humerus	Osteosclerosis	Mild
	Maxilla	Osteosclerosis	Minimal
	Thoracic, Vertebra	Osteosclerosis	Mild
	Tibia	Osteosclerosis	Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
Note: HDN TGLs = 2-14			
Note: BASOPH FOCUS TGLs = 3-14,3-15			
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1-7			
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 624

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870854

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- \* Adrenal Gland - Cortex
- \* Brain
- Intestine Large - Colon
- Intestine Small - Jejunum
- Lymph Node - Mandibular
- \* Ovary
- \* Salivary Glands
- Stomach - Glandular
- Trachea

- \* Adrenal Gland - Medulla
- \* Clitoral Gland
- Intestine Large - Rectum
- \* Islets, Pancreatic
- Lymph Node - Mesenteric
- \* Pancreas
- Skin
- \* Thymus
- \* Urinary Bladder

- Bone
- Esophagus
- Intestine Small - Duodenum
- \* Liver
- Mammary Gland
- \* Parathyroid Gland
- \* Spleen
- \* Thyroid Gland
- Uterus

- \* Bone Marrow
- Intestine Large - Cecum
- Intestine Small - Ileum
- \* Lung
- \* Nose
- \* Pituitary Gland
- Stomach - Forestomach
- Tooth

**OBSERVATIONS**

* Heart	Degeneration	Chronic, Minimal
* Kidney	Nephropathy	Chronic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 625

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870855

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
Pharynx		Hyperplasia	Squamous, Mild
Note: [ HYPERPLASIA ] TGLs = 4-9			
* Pituitary Gland	Pars Distalis	Congestion	Moderate
	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Moderate
Note: CONGESTION TGLs = 3-7			
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
Note: FIBROSIS TGLs = 1-14			
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus		Polyp Stromal	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 625

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870855

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 626

TRT#: 8

SEX: Female

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870856

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Kidney		Nephropathy	Chronic, Minimal
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
Note: HDN	TGLs = 2-14		
* Lung		Alveolar/Bronchiolar Carcinoma	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 1-7		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 627

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 184

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870857

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 628

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870858

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thyroid Gland  
Uterus

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
Tooth

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
Trachea

OBSERVATIONS

\* Adrenal Gland  
  
\* Heart  
\* Kidney  
\* Liver

Cortex  
Cortex

Degeneration  
Hyperplasia  
Degeneration  
Nephropathy  
Basophilic Focus  
Inflammation  
Hyperplasia  
Adenoma  
Congestion

Cystic, Mild  
Mild  
Chronic, Mild  
Chronic, Moderate  
  
Chronic Active, Mild  
Cystic, Moderate  
  
Moderate

Mammary Gland  
\* Pituitary Gland

Pars Distalis  
Pars Distalis

Depletion Lymphoid  
Carcinoma

Moderate

Note: ADENOMA TGLs = 2-7

\* Thymus  
Zymbal's Gland

Note: CARCINOMA TGLs = 1-14

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 629

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 185

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870859

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 630

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870860

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
Bone	Humerus	Osteosclerosis	Mild
	Thoracic, Vertebra	Osteosclerosis	Mild
	Tibia	Osteosclerosis	Moderate
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
		Eosinophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Marked
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA			
TGLs = 1-7			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Ameloblast, Incisor	Degeneration	Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 631

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 184

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870861

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 632

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870862

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Liver  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Uterus

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Ovary  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
Trachea

\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

OBSERVATIONS

\* Adrenal Gland  
\* Clitoral Gland

Cortex

Hyperplasia  
Adenoma  
Hyperplasia  
Inflammation

Mild  
Glandular, Moderate  
Chronic Active, Mild

Note: ADENOMA TGLs = 3-10  
Note: HYPERPLASIA TGLs = 1-14

\* Heart  
\* Kidney  
Mammary Gland  
Mesentery

Fat

Degeneration  
Nephropathy  
Hyperplasia  
Congestion

Chronic, Mild  
Chronic, Mild  
Cystic, Moderate  
Acute, Moderate

Note: [ CONGESTION ] TGLs = 2-15

\* Pituitary Gland  
\* Thymus  
Tooth

Pars Distalis

Adenoma  
Depletion Lymphoid  
Dysplasia  
Necrosis

Mild  
Minimal  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 633

TRT#: 8

SEX: Female

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870863

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
\* Thyroid Gland

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
Tooth

OBSERVATIONS

Bone	Femur	Osteosclerosis	Mild
	Humerus	Osteosclerosis	Mild
	Maxilla	Osteosclerosis	Mild
	Thoracic, Vertebra	Osteosclerosis	Minimal
	Tibia	Osteosclerosis	Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Minimal
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA			
TGLs = 1-7			
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 634

TRT#: 8

SEX: Female

DAY ON TEST: 568

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870864

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Kidney	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Pancreas	* Pituitary Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Brain		Astrocytoma Malignant	
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Liver		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Mucosa	Inflammation	Acute, Mild
* Ovary	Periovarn Tiss	Cyst	
Note: CYST      TGLs = 1-10			
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-4, PIGMENT NOT APPARENT ON AUTOLYZED SECTION

Animal Note: COD, BRAIN TUMOR

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 635

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870865

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
Mammary Gland		Leukemia Mononuclear	
* Spleen		Hyperplasia	Cystic, Moderate
Note: LEUKEMIA MONUC	TGLs = 2-15	Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 636

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870866

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Brain		Compression	
		Hydrocephalus	Moderate
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	Multiple
Note: HDN TGLs = 1-14,2-15			
Mammary Gland		Hyperplasia	Cystic, Marked
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 3-7			
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 637

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870867

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder	Uterus		

MISSING

\* Clitoral Gland

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA	TGLs = 1-14		
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA	TGLs = 2-7		
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 638

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 185

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 82870868

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 639

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870869

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Islets, Pancreatic		Carcinoma	
Note: CARCINOMA	TGLs = 3-15		
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Note: HYPERPLASIA	TGLs = 2-7		
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 640

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870870

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

**OBSERVATIONS**

\* Heart  
\* Kidney  
\* Liver  
Uterus

Endometrium

Degeneration  
Nephropathy  
Inflammation  
Hyperplasia

Chronic, Minimal  
Chronic, Mild  
Chronic Active, Mild  
Cystic, Glandular, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 641

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870871

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
Trachea

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thyroid Gland  
Uterus

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
Tooth

OBSERVATIONS

Eye  
Note: ATROPHY TGLs = 1-17  
Note: CATARACT TGLs = 1-17  
\* Heart  
\* Kidney  
\* Liver  
Note: INFLAMMATION TGLs = 4-14  
Mammary Gland  
Note: FIBROADENOMA TGLs = 2-16  
Note: [ HYPERPLASIA ] TGLs = 2-15,5-18  
\* Pituitary Gland  
Note: ADENOMA TGLs = 3-7  
\* Thymus

Retina  
Lens  
Pars Distalis  
Pars Distalis

Atrophy  
Cataract  
Degeneration  
Nephropathy  
Basophilic Focus  
Inflammation  
Fibroadenoma  
Hyperplasia  
Adenoma  
Congestion  
Depletion Lymphoid

Marked  
Moderate  
Chronic, Minimal  
Chronic, Moderate  
Chronic Active, Moderate  
Cystic, Marked  
Marked  
Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 642

TRT#: 8

SEX: Female

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870872

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Liver
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary	* Pancreas
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thymus	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Kidney		Nephropathy	Chronic, Minimal
* Lung	Alveolar Epith	Hyperplasia	Focal, Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose		Inflammation	Chronic Active, Moderate
		Metaplasia	Squamous, Mild
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 1-7			
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 643

TRT#: 8

SEX: Female

DAY ON TEST: 647

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870873

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Tooth	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 2-14		
Note: CATARACT	TGLs = 2-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA	TGLs = 1-15,1-16		
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 644

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870874

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary	* Pancreas
* Salivary Glands	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

MISSING

* Parathyroid Gland	Skin
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OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Brain		Compression	
		Hydrocephalus	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-17		
Note: CATARACT	TGLs = 1-17		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Marked
* Liver		Hepatodiaphragmatic Nodule	
		Vacuolization Cytoplasmic	Mild
Note: [ HDN ]	TGLs = 4-14,5-14,5-15,6-16		
* Lung		Carcinoma	Metastatic (Thyroid Gland)
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
Note: ADENOMA	TGLs = 3-7		
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	Bilateral, Follicular Cel	Carcinoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 644

**TRT#:** 8  
**DOSE:** 100 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 732  
**HISTO:** 870874

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: CARCINOMA      TGLs = 2-7  
Tooth

C Cell  
Lower, Molar, Peridont Tiss  
Dentine, Incisor

Carcinoma  
Inflammation  
Necrosis

Suppurative, Chronic, Mild  
Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 645

TRT#: 8

SEX: Female

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870875

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Lung  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Trachea

OBSERVATIONS

\* Kidney  
\* Liver  
\* Ovary  
    Note: CYST      TGLs = 1-10  
Uterus  
  
    Note: POLYP STROMAL      TGLs = 2-10

Bile Duct  
Periovarn Tiss  
  
Endometrium

Nephropathy  
Hyperplasia  
Cyst  
  
Hyperplasia  
Polyp Stromal

Chronic, Mild  
Mild  
  
Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 646

TRT#: 8

SEX: Female

DAY ON TEST: 708

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870876

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	Stomach - Forestomach
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
* Heart		Degeneration	Chronic, Moderate
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
* Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC	TGLs = 4-4		
Note: HDN	TGLs = 3-17		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-14,8-6,8-18,9-5,9-7,10-16		
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 11-7		
* Spleen		Leukemia Mononuclear	
		Necrosis	Moderate
Note: NECROSIS	TGLs = 6-1		
[ Necrosis TGLS = 5-15,7-15 ]			
Stomach	Glandular	Pigmentation	Hemosiderin, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 646

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 708

**DOSE:** 100 PPM

**DISP:** Natural Death

**HISTO:** 870876

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: PIGMENT TGLs = 12-6

\* Thymus

Tooth

Lower, Molar, Peridont Tiss

Dentine, Incisor

Leukemia Mononuclear

Inflammation

Necrosis

Suppurative, Chronic, Moderate

Multifocal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL1-10, 1X1MMRED FOCUS NOT APPARENT ON MICRO

Animal Note: COD LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 647

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 185

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870877

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 648

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870878

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	
* Brain		Compression	
* Clitoral Gland		Hyperplasia	Glandular, Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Moderate
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: HDN TGLs = 2-15			
Note: LEUKEMIA MONUC TGLs = 3-4			
* Lung	Alveolar Epith	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
	Pars Distalis	Cyst	
Note: ADENOMA TGLs = 4-16			
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 648

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870878

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LEUKEMIA MONUC TGLs = 1-14

Uterus

Polyp Stromal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 649

TRT#: 8

DOSE: 100 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 571

HISTO: 870879

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Kidney	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

MISSING

Lymph Node - Mesenteric

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-15			
Note: ATROPHY TGLs = 1-15			
* Heart		Degeneration	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC TGLs = 5-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-2			
Mammary Gland		Hyperplasia	Cystic, Marked
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4-14			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 649

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 571

**DOSE:** 100 PPM

**DISP:** Natural Death

**HISTO:** 870879

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: TGL2-7, NODULE NOT APPARENT ON MICRO

Animal Note: COD, LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 650

TRT#: 8

SEX: Female

DAY ON TEST: 575

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870880

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Glandular
* Thymus	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Brain		Compression	
		Hydrocephalus	Moderate
* Clitoral Gland	Bilateral	Adenoma	
Note: ADENOMA	TGLs = 1-16		
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 2-7		
Stomach	Forestomach	Inflammation	Chronic Active, Moderate
	Forestomach	Ulcer	Mild
Note: ULCER	TGLs = 4-14		
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-15, PIGMENT NOT APPARENT ON MICRO

Animal Note: MORIBUND SAC DUE TO PITUITARY TUMOR

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 651

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 184

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870881

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 652

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870882

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 653

TRT#: 8

SEX: Female

DAY ON TEST: 646

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870883

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
\* Urinary Bladder

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach

OBSERVATIONS

Bone  
  
Note: [ OSTEOSCLEROSIS ] TGLs = 3-14

Cranium  
Humerus  
Thoracic, Vertebra  
Tibia

Osteosclerosis  
Osteosclerosis  
Osteosclerosis  
Osteosclerosis

Marked  
Marked  
Marked  
Marked

\* Heart  
\* Kidney  
\* Liver  
  
Note: HDN TGLs = 2-16

Degeneration  
Nephropathy  
Basophilic Focus  
Hepatodiaphragmatic Nodule

Chronic, Mild  
Chronic, Mild

Mammary Gland  
  
Note: FIBROADENOMA TGLs = 1-15

Fibroadenoma  
Hyperplasia

Cystic, Moderate

\* Pituitary Gland  
\* Thymus  
\* Thyroid Gland  
Tooth  
Uterus  
  
Pars Distalis  
C Cell  
Lower, Molar, Peridont Tiss  
Endometrium

Cyst  
Depletion Lymphoid  
Adenoma  
Inflammation  
Hyperplasia

Mild  
Suppurative, Chronic, Moderate  
Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 654

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870884

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Bilateral, Cortex	Degeneration	Cystic, Moderate
* Clitoral Gland		Hyperplasia	Glandular, Mild
Note: HYPERPLASIA TGLs = 3-10			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
Note: EOSIN FOCUS TGLs = 2-4,2-14			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 1-15			
* Ovary	Follicle	Cyst	
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Thymus		Depletion Lymphoid	Moderate
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 655

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870885

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
	Medulla	Leukemia Mononuclear	
Bone	Tibia	Osteosclerosis	Minimal
* Brain		Carcinoma	Metastatic (Pituitary Gland)
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6-14		
Note: HYPERPLASIA	TGLs = 5-4		
* Lung		Leukemia Mononuclear	
Mammary Gland		Adenoma	
		Hyperplasia	Cystic, Moderate
Note: ADENOMA	TGLs = 2-15		
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Carcinoma	
	Pars Distalis	Congestion	Moderate
	Pars Distalis	Cyst	
Note: CARCINOMA	TGLs = 4-7		
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-1		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 655

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870885

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Focal, Minimal

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL1, MAMMARY MASS MISSING AT TRIM

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 656

TRT#: 8

SEX: Female

DAY ON TEST: 670

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870886

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	Esophagus
* Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Glandular	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Medulla	Hypertrophy	Mild
* Brain		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 10-5			
* Clitoral Gland	Duct	Cyst	
Note: CYST TGLs = 11-10			
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Moderate
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: HYPERPLASIA TGLs = 3-4,5-4,6-14,7-15,8-15,9-16			
Note: LEUKEMIA MONUC TGLs = 4-4,4-14,4-15,4-16			
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1-18,2-18			
Stomach	Forestomach	Ulcer	Mild
Note: ULCER TGLs = 12-17			
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 656

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 670

**DOSE:** 100 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870886

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 657

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870887

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular  
Uterus

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Nose  
Skin  
\* Thyroid Gland

\* Brain  
Intestine Large - Rectum  
\* Lung  
\* Ovary  
\* Spleen  
Trachea

Esophagus  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
\* Pancreas  
Stomach - Forestomach  
\* Urinary Bladder

MISSING

\* Parathyroid Gland

OBSERVATIONS

\* Adrenal Gland  
Bone

Cortex  
Thoracic, Vertebra  
Tibia

Hypertrophy  
Osteosclerosis  
Osteosclerosis  
Adenoma  
Inflammation

Mild  
Minimal  
Minimal  
Chronic Active, Mild

\* Clitoral Gland

Note: ADENOMA TGLs = 1-10

\* Heart  
\* Islets, Pancreatic  
\* Kidney  
\* Liver

Degeneration  
Adenoma  
Nephropathy  
Eosinophilic Focus

Chronic, Mild  
Chronic, Moderate

Bile Duct

Hyperplasia  
Inflammation

Mild  
Chronic Active, Mild

Note: EOSIN FOCUS TGLs = 2-14

Mammary Gland  
Pharynx

Hyperplasia  
Squamous Cell Papilloma

Cystic, Mild

Note: SQ CL PAPILLOM TGLs = 3-8

\* Pituitary Gland  
\* Thymus  
Tooth

Palate  
Pars Distalis  
Dentine, Incisor

Adenoma  
Depletion Lymphoid  
Necrosis

Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 657

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870887

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 658

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870888

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Leukemia Mononuclear	
* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-4		
* Lung		Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA	TGLs = 1-15		
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-14		
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 659

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870889

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	* Ovary
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Leukemia Mononuclear	
Note: BASOPH FOCUS TGLs = 2-14			
Lymph Node	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pancreas	Acinus	Cytomegaly	Focal, Mild
* Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
Note: FIBROSIS TGLs = 1-1			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 660

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 184

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870890

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 661

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870891

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
	Cortex	Hypertrophy	Moderate
* Clitoral Gland		Hyperplasia	Glandular, Moderate
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-15		
Note: ATROPHY	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild
	Follicular Cel	Hyperplasia	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Cervix	Cyst	
Note: CYST	TGLs = 2-14		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 662

TRT#: 8

SEX: Female

DAY ON TEST: 732

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870892

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Clitoral Gland		Adenoma	
Note: ADENOMA	TGLs = 3-16		
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Leukemia Mononuclear	
Note: CLEAR CL FOCUS	TGLs = 5-4		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	Multiple
Note: FIBROADENOMA	TGLs = 2-15,4-17		
* Pituitary Gland	Pars Distalis	Congestion	Mild
	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Moderate
Note: HYPERPLASIA	TGLs = 6-7		
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 662

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870892

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thymus

Depletion Lymphoid

Mild

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 663

TRT#: 8

SEX: Female

DAY ON TEST: 460

DOSE: 100 PPM

DISP: Scheduled Sacrifice

HISTO: 870893

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Nose  
\* Pituitary Gland  
Stomach - Glandular  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Ovary  
Skin  
\* Thyroid Gland  
Uterus

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Pancreas  
\* Spleen  
Tooth

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
Trachea

**MISSING**

Lymph Node - Mandibular

\* Salivary Glands

**OBSERVATIONS**

\* Heart  
\* Kidney  
\* Liver  
Mammary Gland  
\* Thymus

Bile Duct

Degeneration  
Nephropathy  
Hyperplasia  
Hyperplasia  
Depletion Lymphoid

Chronic, Minimal  
Chronic, Moderate  
Minimal  
Cystic, Mild  
Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 664

TRT#: 8

SEX: Female

DAY ON TEST: 733

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870894

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
Mammary Gland		Fibroadenoma	
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Cervix	Cyst	
	Endometrium	Hyperplasia	Cystic, Glandular, Mild
Note: CYST	TGLs = 2-15		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 665

TRT#: 8

SEX: Female

DAY ON TEST: 643

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870895

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Brain	* Clitoral Gland	Esophagus
* Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pituitary Gland	* Salivary Glands	Skin
Stomach - Forestomach	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

MISSING

* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Gland	Medulla	Leukemia Mononuclear	
Bone	Cartilage, Joint, Tibia	Degeneration	Minimal
* Bone Marrow	Femoral	Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-14,4-16,5-17		
Mammary Gland		Hyperplasia	Cystic, Moderate
* Ovary		Leukemia Mononuclear	
* Pancreas		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 1-15		
Stomach	Glandular	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6-16		
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 665

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 643

**DOSE:** 100 PPM

**DISP:** Natural Death

**HISTO:** 870895

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Dentine, Incisor

Necrosis

Multifocal, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

Animal Note: COD, LEUKEMIA MONONUCLEAR

Animal Note: TEETH, CA F2 GRANULES PRESENT

Animal Note: TGL7-10, CLITORAL GLAND WITHIN NORMAL LIMITS

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 666

TRT#: 8

SEX: Female

DAY ON TEST: 647

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870896

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
Skin  
\* Thyroid Gland

Bone  
\* Heart  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Spleen  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular

OBSERVATIONS

\* Adrenal Gland  
\* Brain

Cortex

Hyperplasia  
Carcinoma  
Compression  
Hydrocephalus

Mild  
Metastatic (Pituitary Gland)

Note: HYDROCEPHALUS TGLs = 1-5

\* Kidney  
\* Liver

Nephropathy  
Basophilic Focus  
Eosinophilic Focus

Chronic, Minimal

Mammary Gland

\* Pancreas  
\* Pituitary Gland

Acinus  
Pars Distalis

Hyperplasia  
Atrophy  
Carcinoma

Cystic, Moderate  
Minimal

Note: CARCINOMA TGLs = 2-7

\* Thymus

Depletion Lymphoid

Moderate

Tooth

Lower, Molar, Peridont Tiss

Inflammation

Suppurative, Chronic, Moderate

Dentine, Incisor

Necrosis

Focal, Minimal

Uterus

Endometrium

Hyperplasia

Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO PITUITARY TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 667

TRT#: 8

SEX: Female

DAY ON TEST: 733

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870897

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Clitoral Gland		Inflammation	Chronic Active, Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney	Renal Tubule	Atrophy	Marked
	Renal Tubule	Inflammation	Chronic Active, Marked
		Nephropathy	Chronic, Moderate
	[ Nephropathy TGLS = 4-1 ]		
* Liver		Basophilic Focus	
	Note: LEUKEMIA MONUC TGLs = 3-4	Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
	Note: LEUKEMIA MONUC TGLs = 5-2,5-3		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	
	Note: FIBROADENOMA TGLs = 1-14	Hyperplasia	Cystic, Marked
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
	Note: ADENOMA TGLs = 6-7		
* Spleen		Leukemia Mononuclear	
	Note: LEUKEMIA MONUC TGLs = 2-15		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 667

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870897

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thymus

Depletion Lymphoid

Mild

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 668

TRT#: 8

SEX: Female

DAY ON TEST: 715

DOSE: 100 PPM

DISP: Natural Death

HISTO: 870898

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
\* Nose  
\* Salivary Glands  
Tooth

\* Adrenal Gland - Medulla  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Ovary  
Skin  
Trachea

Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Pancreas  
Stomach - Forestomach  
\* Urinary Bladder

\* Heart  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Thyroid Gland  
Uterus

OBSERVATIONS

Bone  
\* Bone Marrow  
\* Brain  
\* Clitoral Gland  
Mammary Gland  
\* Pituitary Gland  
  
\* Spleen  
  
Stomach  
Note: ULCER      TGLs = 2-15  
\* Thymus  
Tongue  
Note: HYPERPLASIA      TGLs = 1-14

Tibia  
Femoral  
  
Pars Distalis  
Pars Distalis  
Pars Intermed  
Red Pulp  
  
Glandular

Osteosclerosis  
Atrophy  
Glioma Malignant  
Inflammation  
Hyperplasia  
Cyst  
Hyperplasia  
Hyperplasia  
Atrophy  
Depletion Lymphoid  
Ulcer

Moderate  
Marked  
  
Chronic Active, Mild  
Cystic, Mild  
  
Moderate  
Mild  
Moderate  
Mild  
Moderate  
  
Marked  
Squamous, Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: PROBABLE COD, BRAIN TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 669

TRT#: 8

SEX: Female

DAY ON TEST: 733

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870899

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Tooth	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Clitoral Gland		Hyperplasia	Glandular, Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
Note: HDN TGLs = 4-16			
Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA TGLs = 1-14,2-15			
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-7, PITUITARY FOCUS NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 670

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870900

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Moderate
	Medulla	Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Heart		Degeneration	Chronic, Minimal
* Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
* Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-4		
* Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 7-2,7-3		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-15,5-7,6-16,8-18		
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 1-17		
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2-14		
* Thymus		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 8-18		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 670

**TRT#:** 8  
**DOSE:** 100 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 730  
**HISTO:** 870900

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Thyroid Gland  
Tooth

C Cell  
Dentine, Incisor

Hyperplasia  
Necrosis

Mild  
Multifocal, Minimal

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 671

TRT#: 8

SEX: Female

DAY ON TEST: 733

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870901

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	* Urinary Bladder
Uterus			

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Mild
* Ovary	Periovarn Tiss	Cyst	
Note: CYST	TGLs = 1-10		
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	Follicular Cel	Carcinoma	
Tooth	Dentine, Incisor	Dysplasia	Mild
	Dentine, Incisor	Necrosis	Multifocal, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 672

TRT#: 8

SEX: Female

DAY ON TEST: 716

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870902

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular  
Uterus

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
Skin  
Tooth

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Spleen  
Trachea

OBSERVATIONS

\* Kidney  
\* Liver  
  
Mammary Gland

Bile Duct

Nephropathy  
Basophilic Focus  
Hyperplasia  
Fibroadenoma  
Hyperplasia

Chronic, Minimal  
  
Mild  
Multiple  
Cystic, Mild

Note: [ FIBROADENOMA ] TGLs = 1-14,2-15,3-16

\* Pancreas  
\* Pituitary Gland  
\* Thymus  
\* Thyroid Gland

Acinus  
Pars Distalis  
  
C Cell

Atrophy  
Cyst  
Depletion Lymphoid  
Adenoma

Mild  
  
Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY TUMORS

Animal Note: TGL3-16, IS MAMMARY TUMOR ,NOT CLITORAL GLND.

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 673

TRT#: 8

SEX: Female

DAY ON TEST: 716

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO: 870903

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
Trachea

\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
\* Urinary Bladder

Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Uterus

OBSERVATIONS

\* Adrenal Gland  
Note: PHEOCHROM MAL TGLs = 3-7  
Bone  
\* Clitoral Gland  
Note: INFLAMMATION TGLs = 1-10  
\* Heart  
\* Kidney  
\* Liver  
Mammary Gland  
\* Thymus  
Tooth

Medulla  
Tibia  
Dentine, Incisor

Pheochromocytoma Malignant  
Osteosclerosis  
Inflammation  
Degeneration  
Nephropathy  
Inflammation  
Hyperplasia  
Depletion Lymphoid  
Necrosis

Mild  
Chronic Active, Moderate  
Chronic, Mild  
Chronic, Moderate  
Chronic Active, Minimal  
Cystic, Mild  
Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-1, SPLEEN WITHIN NORMAL LIMITS

Animal Note: MORIBUND SAC DUE TO ADRENAL TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 674

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870904

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 675

TRT#: 8

SEX: Female

DAY ON TEST: 733

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870905

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-16			
Note: ATROPHY TGLs = 1-16			
* Kidney		Nephropathy	Chronic, Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
		Hepatocellular Adenoma	
Note: HEPATOCLR ADEN TGLs = 2-14			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Mild
Note: ADENOMA TGLs = 4-7			
* Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Necrosis	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: ON MICRO

Animal Note: TGL3-15, NO ABNORMAL LIVER DEPRESSIONS APPARENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 676

TRT#: 8

SEX: Female

DAY ON TEST: 733

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870906

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thyroid Gland

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
Trachea

OBSERVATIONS

\* Adrenal Gland  
\* Heart  
\* Kidney  
Note: NEPHROPATHY TGLs = 3-1  
\* Liver

Cortex  
  
  
  
  
  
  
Hepatocyte

Hyperplasia  
Degeneration  
Nephropathy  
  
Basophilic Focus  
Degeneration  
Eosinophilic Focus

Mild  
Chronic, Mild  
Chronic, Marked

Note: EOSIN FOCUS TGLs = 4-14  
Mammary Gland

Fibroadenoma  
Hyperplasia

Cystic, Mild

Note: FIBROADENOMA TGLs = 1-15

\* Thymus

Tooth  
Uterus

Dentine, Incisor  
Lumen

Depletion Lymphoid  
Necrosis  
Hemorrhage

Marked  
Multifocal, Minimal  
Marked

Note: HEMORRHAGE TGLs = 2-10

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 677

TRT#: 8

SEX: Female

DAY ON TEST: 733

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870907

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

* Clitoral Gland	Duct	Cyst	
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Chronic Active, Moderate
		Mixed Cell Focus	
Note: [ MIXED CL FOCUS ] TGLs = 3-14			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 1-7			
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Hyperplasia	Mild
Uterus	Lumen	Hemorrhage	Marked
Note: HEMORRHAGE TGLs = 2-10			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 678

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870908

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Glandular	Tooth	Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
Note: [ BASOPH FOCUS ] TGLs = 4-4			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 1-15			
* Pituitary Gland	Pars Distalis	Adenoma	Multiple
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 3-7			
Stomach	Forestomach	Acanthosis	Moderate
Note: ACANTHOSIS TGLs = 5-16			
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	Follicular Cel	Adenoma	
Uterus		Infarct	Chronic, Moderate
Note: INFARCT TGLs = 2-14			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 679

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 185

**DOSE:** 100 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870909

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone

Tooth

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 680

TRT#: 8

SEX: Female

DAY ON TEST: 733

DOSE: 100 PPM

DISP: Terminal Sacrifice

HISTO: 870910

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Ovary  
Skin  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Pancreas  
\* Spleen  
Tooth

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Stomach - Forestomach  
Trachea

OBSERVATIONS

\* Heart  
\* Kidney  
\* Liver  
  
Mammary Gland  
\* Nose  
\* Pituitary Gland  
\* Thymus  
Uterus

Mucosa  
Pars Distalis

Degeneration  
Nephropathy  
Basophilic Focus  
Inflammation  
Hyperplasia  
Inflammation  
Cyst  
Depletion Lymphoid  
Polyp Stromal

Chronic, Minimal  
Chronic, Mild  
  
Chronic Active, Minimal  
Cystic, Mild  
Chronic Active, Mild  
  
Mild

Note: POLYP STROMAL TGLs = 1-14

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 681

TRT#: 10

SEX: Female

DAY ON TEST: 185

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870671

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Kidney  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

**OBSERVATIONS**

\* Liver  
[ Hepatodiaphragmatic Nodule TGLS = 1-14 ]  
Hepatodiaphragmatic Nodule

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 682

TRT#: 10

SEX: Female

DAY ON TEST: 460

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870672

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pancreas  
\* Thymus  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Salivary Glands  
\* Thyroid Gland  
Uterus

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Kidney  
\* Nose  
Stomach - Forestomach  
Tooth

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Ovary  
Stomach - Glandular  
Trachea

MISSING

\* Parathyroid Gland

OBSERVATIONS

\* Heart  
\* Liver

Lymph Node  
\* Pituitary Gland

Skin  
Note: FIB HISTIOCYT TGLs = 1-14  
\* Spleen

Mandibular  
Pars Distalis  
Pars Distalis  
Subcut Tiss

Degeneration  
Basophilic Focus  
Leukemia Mononuclear  
Leukemia Mononuclear  
Cyst  
Hyperplasia  
Fibrous Histiocytoma  
Leukemia Mononuclear

Chronic, Mild  
  
  
  
  
Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 683

TRT#: 10

SEX: Female

DAY ON TEST: 415

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870673

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
\* Thyroid Gland  
Uterus

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
Tooth

OBSERVATIONS

\* Adrenal Gland  
\* Heart  
\* Kidney  
\* Liver  
\* Nose  
\* Pituitary Gland

Cortex  
  
  
  
Mucosa  
Pars Distalis

Vacuolization Cytoplasmic  
Degeneration  
Nephropathy  
Vacuolization Cytoplasmic  
Inflammation  
Hyperplasia

Focal, Mild  
Chronic, Minimal  
Chronic, Mild  
Mild  
Chronic Active, Mild  
Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO POOR CONDITION

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 684

TRT#: 10

SEX: Female

DAY ON TEST: 459

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870674

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

**OBSERVATIONS**

* Clitoral Gland		Hyperplasia	Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Leukemia Mononuclear	
Tooth	Molar, Peridont Tiss	Inflammation	Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 685

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870675

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Cortex	Adenoma	
	Medulla	Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Eosinophilic Focus	
Note: EOSIN FOCUS TGLs = 2-16			
Note: BASOPH FOCUS TGLs = 3-17			
Mammary Gland		Adenoma	
		Hyperplasia	Cystic, Moderate
Note: ADENOMA TGLs = 1-15			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	
Note: ADENOMA TGLs = 4-7			
Stomach	Forestomach	Acanthosis	Moderate
Note: ACANTHOSIS TGLs = 5-14			
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 686

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870676

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Degeneration	Cystic, Moderate
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-14			
Note: [ CATARACT ] TGLs = 1-14			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Inflammation	Chronic Active, Mild
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA TGLs = 2-15			
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Adenoma	Multiple
	Pars Distalis	Congestion	Mild
	Pars Distalis	Cyst	
	Pars Intermed	Cyst	
	Pars Distalis	Hemorrhage	Moderate
Note: HEMORRHAGE TGLs = 3-7			
* Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 687

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870677

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder		

OBSERVATIONS

Bone	Humerus	Osteosclerosis	Mild
	Thoracic, Vertebra	Osteosclerosis	Mild
	Tibia	Osteosclerosis	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney	Cortex	Infarct	Chronic, Multifocal, Moderate
		Nephropathy	Chronic, Minimal
Note: INFARCT	TGLs = 3-1,5-1		
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	
Note: CYST	TGLs = 2-7		
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Dysplasia	Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild
Note: HYPERPLASIA	TGLs = 4-15		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 688

TRT#: 10

SEX: Female

DAY ON TEST: 647

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870678

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Kidney	* Liver	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	Uterus

**OBSERVATIONS**

* Clitoral Gland	Bilateral	Adenoma	
Note: ADENOMA	TGLs = 1-14,1-15,2-10		
* Heart		Degeneration	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO CLITORAL GLAND TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 689

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870679

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Clitoral Gland		Adenoma	
		Inflammation	Chronic Active, Moderate
Note: ADENOMA	TGLs = 3-16		
Eye		Atrophy	Marked
		Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Minimal
Note: FIBROADENOMA	TGLs = 2-15		
* Pituitary Gland		Pars Distalis	Moderate
		Pars Distalis	Mild
Note: CONGESTION	TGLs = 4-7		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 690

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870680

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Brain	* Clitoral Gland
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Skin
Stomach - Forestomach	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Bone Marrow	Femoral	Myelofibrosis	Moderate
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC	TGLs = 3-4		
* Lung	Alveolar Epith	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-2,4-3		
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear	TGLs = 2-15 ]		
Stomach	Glandular	Pigmentation	Hemosiderin, Mild
Note: PIGMENT	TGLs = 5-16		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 690

**TRT#:** 10  
**DOSE:** 175 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 731  
**HISTO:** 870680

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Depletion Lymphoid	Marked
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 691

TRT#: 10

SEX: Female

DAY ON TEST: 631

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870681

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pituitary Gland  
Stomach - Forestomach  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Uterus

Bone  
\* Heart  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
\* Spleen  
Trachea

OBSERVATIONS

\* Clitoral Gland

Hyperplasia  
Inflammation

Glandular, Mild  
Chronic Active, Mild

\* Kidney

Nephropathy

Chronic, Mild

\* Liver

Basophilic Focus  
Inflammation

Chronic Active, Minimal

Mammary Gland

Fibroadenoma  
Hyperplasia

Cystic, Moderate

Note: FIBROADENOMA TGLs = 1-14

\* Pancreas

Acinus

Atrophy

Mild

\* Thymus

Depletion Lymphoid

Mild

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 692

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870682

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
* Lung		Alveolar/Bronchiolar Adenoma	
Note: ALV BRON ADEN TGLs = 1-2			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	Follicle	Cyst	
	Follicular Cel	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 693

TRT#: 10

SEX: Female

DAY ON TEST: 459

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870683

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

**OBSERVATIONS**

\* Clitoral Gland  
\* Heart  
\* Kidney  
\* Liver  
Mammary Gland

Inflammation  
Degeneration  
Nephropathy  
Inflammation  
Hyperplasia

Chronic Active, Minimal  
Chronic, Minimal  
Chronic, Minimal  
Chronic Active, Minimal  
Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 694

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870684

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Clitoral Gland		Adenoma	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 2-7			
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 3-15			
* Thymus		Depletion Lymphoid	Moderate
Uterus	Cervix	Cyst	
Note: CYST TGLs = 1-14			

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 695

TRT#: 10

SEX: Female

DAY ON TEST: 709

DOSE: 175 PPM

DISP: Natural Death

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
* Brain		Leukemia Mononuclear	
Ear	Pinna	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 6-17			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 4-1			
* Liver	Bile Duct	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC TGLs = 8-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-15			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 7-7			
* Spleen	Capsule	Fibrosis	Mild
		Leukemia Mononuclear	
[ Fibrosis TGLS = 3-1,3-14 ]			
[ Leukemia Mononuclear TGLS = 2-1,2-14 ]			
Stomach	Forestomach	Ulcer	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 695

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 709

**DOSE:** 175 PPM

**DISP:** Natural Death

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ULCER	TGLs = 9-6,9-16	Glandular	Ulcer	Mild
Note: ULCER	TGLs = 10-6,10-16			
* Thymus			Depletion Lymphoid	Moderate
Tooth		Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus			Leukemia Mononuclear	

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: COD,LEUKEMIA MONONUCLEAR

Animal Note: TGL1-10,NODULE NOT PRESENT ON MICRO, JUST

Animal Note: ATTACHED MAMMARY GLAND

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 696

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870686

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Spleen  
Trachea

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Salivary Glands  
Stomach - Glandular  
Uterus

\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
Skin  
\* Thyroid Gland

OBSERVATIONS

\* Adrenal Gland  
\* Clitoral Gland  
\* Heart  
\* Kidney  
\* Liver  
Mammary Gland  
\* Pancreas  
\* Pituitary Gland  
  
\* Thymus  
Tooth

Medulla  
  
  
  
  
Acinus  
Pars Intermed  
Pars Distalis  
  
Lower, Molar, Peridont Tiss  
Dentine, Incisor

Hyperplasia  
Hyperplasia  
Degeneration  
Nephropathy  
Basophilic Focus  
Hyperplasia  
Atrophy  
Cyst  
Hyperplasia  
Depletion Lymphoid  
Inflammation  
Necrosis

Mild  
Glandular, Mild  
Chronic, Mild  
Chronic, Mild  
  
Cystic, Mild  
Minimal  
  
Mild  
Moderate  
Suppurative, Chronic, Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 697

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870687

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

MISSING

\* Clitoral Gland

OBSERVATIONS

* Adrenal Gland	Cortex Medulla	Hyperplasia Pheochromocytoma Benign	Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma Hyperplasia	Cystic, Marked
Note: FIBROADENOMA TGLs = 1-14			
* Nose	Sinus Mucosa	Foreign Body Inflammation	Mild Chronic Active, Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 2-7			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Chronic, Mild Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 698

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870688

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Bone Marrow	* Brain	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Medulla	Hyperplasia	Mild
Bone	Humerus	Osteosclerosis	Marked
	Maxilla	Osteosclerosis	Mild
	Thoracic, Vertebra	Osteosclerosis	Moderate
	Tibia	Osteosclerosis	Marked
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 1-14			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 2-7			
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	Follicle	Cyst	
	Follicular Cel	Hyperplasia	Mild
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 698

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870688

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 699

TRT#: 10

SEX: Female

DAY ON TEST: 571

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870689

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Clitoral Gland	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thymus	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Brain		Compression	
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Inflammation	Chronic Active, Mild
		Vacuolization Cytoplasmic	Minimal
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 3-15		
Skin	Sweat Gland	Adenoma	
Note: ADENOMA	TGLs = 2-14		
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO PITUITARY MASS

Animal Note: TGL4-6, LYMPH NODE WITHIN NORMAL LIMITS

Animal Note: TGL1-16, YELLOW PIGMENT NOT VISIBLE, EYES NORMAL ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 700

TRT#: 10

SEX: Female

DAY ON TEST: 646

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870690

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	Uterus

MISSING

\* Clitoral Gland

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1-14			
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	Follicular Cel	Carcinoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY TUMOR

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 701

TRT#: 10

SEX: Female

DAY ON TEST: 561

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870691

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Clitoral Gland	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Kidney	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thymus
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

**OBSERVATIONS**

* Brain		Compression	
* Liver		Hepatodiaphragmatic Nodule	
Note: HDN	TGLs = 1-14		
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Hemorrhage	Marked
Note: HEMORRHAGE	TGLs = 3-7		
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, PITUITARY HEMORRHAGE

Animal Note: TGL2-2,2-3, NCL, LUNG ESSENTIALLY NORMAL

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 702

TRT#: 10

SEX: Female

DAY ON TEST: 705

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870692

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary	* Parathyroid Gland
* Salivary Glands	Skin	Stomach - Forestomach	Trachea
* Urinary Bladder			

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland Note: PHEOCHROM BGN TGLs = 5-7	Medulla	Pheochromocytoma Benign	
* Brain		Compression	
		Hydrocephalus	Mild
* Clitoral Gland Note: CYST TGLs = 2-10	Duct	Cyst	
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Moderate
Mammary Gland		Hyperplasia	Cystic, Marked
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland Note: ADENOMA TGLs = 4-7	Pars Distalis	Adenoma	
* Spleen Note: INFLAMMATION TGLs = 1-1,1-14		Inflammation	Granulomatous, Marked
Stomach Note: NECROSIS TGLs = 6-6	Glandular	Necrosis	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 702

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 705

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870692

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**ORGAN AND ACCOUNTABLE SITE STATUS**

\* Thyroid Gland

Follicular Cel

Hyperplasia

Moderate

Tooth

Dentine, Incisor

Necrosis

Multifocal, Minimal

Uterus

Cervix

Cyst

Note: CYST      TGLs = 3-15

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PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO PITUITARY TUMOR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 703

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870693

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Cortex	Degeneration	Cystic, Mild
* Clitoral Gland		Adenoma	
Note: ADENOMA TGLs = 2-14			
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Basophilic Focus	
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-4			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Mild
Note: ADENOMA TGLs = 1-7			
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 704

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870694

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
Note: BASOPH FOCUS TGLs = 3-14			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Congestion	Moderate
	Pars Distalis	Hyperplasia	Moderate
Note: CONGESTION TGLs = 1-7			
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Dentine, Incisor	Necrosis	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-4, LIVER LESION NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 705

TRT#: 10

SEX: Female

DAY ON TEST: 460

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870695

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
 \* Clitoral Gland  
 Intestine Large - Colon  
 Intestine Small - Jejunum  
 Lymph Node - Mesenteric  
 \* Parathyroid Gland  
 \* Spleen  
 \* Thyroid Gland

Bone  
 Esophagus  
 Intestine Large - Rectum  
 \* Islets, Pancreatic  
 Mammary Gland  
 \* Pituitary Gland  
 Stomach - Forestomach  
 Tooth

\* Bone Marrow  
 \* Heart  
 Intestine Small - Duodenum  
 \* Lung  
 \* Ovary  
 \* Salivary Glands  
 Stomach - Glandular  
 Trachea

\* Brain  
 Intestine Large - Cecum  
 Intestine Small - Ileum  
 Lymph Node - Mandibular  
 \* Pancreas  
 Skin  
 \* Thymus  
 \* Urinary Bladder

OBSERVATIONS

\* Adrenal Gland  
 \* Kidney  
 \* Liver

Cortex

Hypertrophy  
 Nephropathy  
 Basophilic Focus  
 Hepatodiaphragmatic Nodule  
 Inflammation

Minimal  
 Chronic, Minimal

Note: HDN TGLs = 1-14

\* Nose  
 Uterus

Endometrium

Inflammation  
 Hyperplasia

Chronic Active, Minimal  
 Chronic Active, Mild  
 Cystic, Glandular, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 706

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870696

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thyroid Gland  
Uterus

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
Tooth

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
Trachea

\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

OBSERVATIONS

\* Adrenal Gland  
Bone  
\* Heart  
\* Kidney  
\* Liver

Cortex  
Tibia

Hyperplasia  
Osteosclerosis  
Degeneration  
Nephropathy  
Basophilic Focus  
Inflammation  
Fibroadenoma  
Hyperplasia

Mild  
Minimal  
Chronic, Mild  
Chronic, Mild  
Chronic Active, Mild  
Cystic, Mild

Mammary Gland

Note: FIBROADENOMA TGLs = 1-14

\* Pituitary Gland

Pars Distalis  
Pars Distalis

Adenoma  
Congestion

Moderate

Note: ADENOMA TGLs = 2-7

\* Thymus

Depletion Lymphoid

Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 707

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870697

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder	Uterus		

MISSING

\* Salivary Glands

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 708

TRT#: 10

SEX: Female

DAY ON TEST: 184

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870698

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

**OBSERVATIONS**

\* Heart

Degeneration

Chronic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 709

TRT#: 10

SEX: Female

DAY ON TEST: 557

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870699

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	* Nose	* Ovary
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	Skin
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder
Uterus			

INSUFFICIENT TISSUE

\* Thymus

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC TGLs = 3-4			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Minimal
* Spleen		Leukemia Mononuclear	
		Thrombosis	
Note: THROMBUS TGLs = 2-17			
[ Thrombosis TGLS = 1-16 ]			
Stomach	Glandular	Necrosis	Mild
	Forestomach	Ulcer	Moderate
Note: NECROSIS TGLs = 5-15			
Note: ULCER TGLs = 4-14			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 709

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 557

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870699

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 710

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870700

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Uterus

\* Adrenal Gland - Medulla  
Harderian Gland  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
Trachea

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

OBSERVATIONS

Bone  
  
\* Clitoral Gland  
\* Heart  
\* Kidney  
\* Liver  
  
Mammary Gland

Humerus  
Thoracic, Vertebra  
Tibia  
Duct

Osteosclerosis  
Osteosclerosis  
Osteosclerosis  
Cyst  
Degeneration  
Nephropathy  
Basophilic Focus  
Vacuolization Cytoplasmic  
Fibroadenoma  
Hyperplasia

Moderate  
Moderate  
Marked  
  
Chronic, Minimal  
Chronic, Mild  
  
Mild  
Cystic, Marked

Note: FIBROADENOMA TGLs = 1-14

\* Pituitary Gland  
\* Thymus  
Tooth

Pars Distalis  
  
Dentine, Incisor

Cyst  
Depletion Lymphoid  
Necrosis

Marked  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 711

TRT#: 10

SEX: Female

DAY ON TEST: 722

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870701

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Brain		Compression	
* Clitoral Gland		Hyperplasia	Glandular, Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Hepatodiaphragmatic Nodule	
Note: HDN	TGLs = 1-4		
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hemorrhage	Moderate
Note: ADENOMA	TGLs = 2-7		
* Spleen		Depletion Lymphoid	Mild
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-14, FOCUS NOT APPARENT ON MICRO

Animal Note: COD, PITUITARY MASS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 712

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870702

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Urinary Bladder	Uterus		

MISSING

Esophagus	Trachea
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OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Inflammation	Chronic Active, Mild
		Mixed Cell Focus	
		Vacuolization Cytoplasmic	Minimal
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 713

TRT#: 10

SEX: Female

DAY ON TEST: 515

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870703

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	* Spleen
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Nose	Mucosa	Inflammation	Acute, Mild
	Mucosa	Ulcer	Mild
Stomach	Forestomach	Inflammation	Chronic Active, Mild
	Forestomach	Ulcer	Moderate
Note: ULCER	TGLs = 1-14		
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2-4, ATRIA DILATED, WITHIN NORMAL LIMITS

Animal Note: COD, UNDETERMINED

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 714

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870704

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Clitoral Gland		Inflammation	Chronic Active, Minimal
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-14			
Note: CATARACT TGLs = 1-14			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	Multiple
	Bile Duct	Hyperplasia	Minimal
Note: [ BASOPH FOCUS ] TGLs = 2-15			
[ Hyperplasia TGLS = 3-16,4-17 ]			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild
	Follicular Cel	Hyperplasia	Minimal
Tooth	Dentine, Incisor	Necrosis	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 715

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870705

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Brain	* Clitoral Gland
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	Stomach - Forestomach
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Bone Marrow	Femoral	Leukemia Mononuclear	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-16			
Note: ATROPHY TGLs = 1-16			
* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 3-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4-14			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Intermed	Cyst	
* Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2-1			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 715

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870705

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Stomach	Glandular	Necrosis	Mild
Note: NECROSIS      TGLs = 5-6,5-15			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Ameloblast, Incisor	Degeneration	Minimal

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 716

TRT#: 10

SEX: Female

DAY ON TEST: 628

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870706

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular

\* Adrenal Gland - Medulla  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
Trachea

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
\* Urinary Bladder

\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Uterus

OBSERVATIONS

\* Clitoral Gland  
Note: [ CYST ] TGLs = 2-10  
Eye  
Note: [ ATROPHY ] TGLs = 1-14  
Note: [ CATARACT ] TGLs = 1-14  
\* Heart  
\* Kidney  
\* Liver  
Mammary Gland  
Oral Mucosa  
Note: [ SQUAM CEL CARC ] TGLs = 2-15  
\* Thymus  
\* Thyroid Gland  
Tooth

Duct  
Retina  
Lens  
Gingival  
C Cell  
Ameloblast, Incisor  
Dentine, Incisor

Cyst  
Atrophy  
Cataract  
Degeneration  
Nephropathy  
Vacuolization Cytoplasmic  
Hyperplasia  
Squamous Cell Carcinoma  
Depletion Lymphoid  
Hyperplasia  
Degeneration  
Necrosis

Marked  
Moderate  
Chronic, Minimal  
Chronic, Mild  
Mild  
Cystic, Mild  
Mild  
Mild  
Minimal  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MANDIBULAR MASS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 717

TRT#: 10

SEX: Female

DAY ON TEST: 578

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870707

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Kidney
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Pituitary Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

MISSING

\* Parathyroid Gland

OBSERVATIONS

Bone	Humerus	Osteosclerosis	Mild
	Thoracic, Vertebra	Osteosclerosis	Mild
* Brain		Oligodendroglioma Malignant	
* Clitoral Gland		Adenoma	
Note: ADENOMA	TGLs = 1-15		
* Heart		Degeneration	Chronic, Mild
* Liver		Hepatodiaphragmatic Nodule	
Note: HDN	TGLs = 3-14		
Mammary Gland		Hyperplasia	Cystic, Mild
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD BRAIN TUMOR

Animal Note: TGL2-16, PIGMENT NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 718

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870708

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Brain		Compression	
		Hydrocephalus	Moderate
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Marked
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Marked
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 1-14			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
Note: ADENOMA TGLs = 2-7			
Stomach	Forestomach	Ulcer	Moderate
Note: ULCER TGLs = 3-6			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 718

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870708

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 719

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870709

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Liver	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Tooth
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA TGLs = 1-14			
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 3-7			
* Thymus		Depletion Lymphoid	Moderate
Uterus		Polyp Stromal	
Note: POLYP STROMAL TGLs = 2-10			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 720

TRT#: 10

SEX: Female

DAY ON TEST: 338

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870710

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
Trachea

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Pituitary Gland  
Stomach - Glandular  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Salivary Glands  
\* Thyroid Gland

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
Tooth

OBSERVATIONS

\* Heart  
\* Kidney

Degeneration  
Hydronephrosis  
Nephropathy  
Leukemia Mononuclear  
Inflammation  
Leukemia Mononuclear  
Depletion Lymphoid  
Sarcoma Stromal

Chronic, Mild  
Moderate  
Chronic, Mild  
Chronic Active, Mild  
Moderate

\* Liver  
\* Nose  
\* Spleen  
\* Thymus  
Uterus

Mucosa  
  
  
  
Cervix

Note: SARC STROMAL TGLs = 1-14,2-15

PRIMARY CAUSE OF DEATH

-

Animal Note: CAUSE OF DEATH, MASS IN UTERUS AND CERVIX

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 721

TRT#: 10

SEX: Female

DAY ON TEST: 631

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870711

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Tissue NOS	Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone Marrow	Femoral	Leukemia Mononuclear	
* Brain		Hemorrhage	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Leukemia Mononuclear	
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4-4		
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3-15,5-14		
Mammary Gland		Hyperplasia	Cystic, Moderate
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 1-1 ]		
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Dysplasia	Mild
Uterus		Polyp Stromal	
Note: POLYP STROMAL	TGLs = 2-16		

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 721

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 631

**DOSE:** 175 PPM

**DISP:** Natural Death

**HISTO:** 870711

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: COD LEUKEMIA MONONUCLEAR

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 722

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870712

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Mixed Cell Focus	
Note: [ MIXED CL FOCUS ] TGLs = 2-14			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
	Pars Distalis	Cyst	
Note: ADENOMA TGLs = 1-7			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 723

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870713

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	* Bone Marrow	* Brain	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
Bone	Humerus	Osteosclerosis	Minimal
	Thoracic, Vertebra	Osteosclerosis	Minimal
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: HDN TGLs = 3-4			
Note: LEUKEMIA MONUC TGLs = 4-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Ovary	Bilateral, Periovarn Tiss	Cyst	
Note: CYST TGLs = 2-10			
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
Note: CYST TGLs = 5-7			
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-14 ]			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 723

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870713

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 724

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870714

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Kidney	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Heart		Degeneration	Chronic, Mild
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: HDN TGLs = 2-14			
Note: BASOPH FOCUS TGLs = 1-14			
* Lung		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 725

TRT#: 10

SEX: Female

DAY ON TEST: 613

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870715

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Clitoral Gland	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Brain		Carcinoma	Metastatic (Zymbal'S Gland)
		Necrosis	Mild
Note: NECROSIS	TGLs = 6-5		
Eye	Antr Chamber	Hemorrhage	Moderate
	Cornea	Inflammation	Acute, Moderate
Note: HEMORRHAGE	TGLs = 1-14		
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Inflammation	Chronic Active, Mild
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Fibroadenoma	
* Pituitary Gland	Pars Distalis	Cyst	
Stomach	Forestomach	Inflammation	Chronic Active, Moderate
	Forestomach	Ulcer	Moderate
Note: ULCER	TGLs = 7-16		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Zymbal's Gland		Carcinoma	
Note: CARCINOMA	TGLs = 4-17		

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, ZYMBALS GLAND TUMOR

Animal Note: TGL5-5, NO PIGMENT PRESENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 725

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 613

**DOSE:** 175 PPM

**DISP:** Natural Death

**HISTO:** 870715

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: TGL2-15,3-15, NO FOCI ARE PRESENT AT MICRO

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 726

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 185

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870716

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 727

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870717

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder	Uterus		

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Gland	Medulla Cortex	Hyperplasia Hypertrophy Inflammation	Mild Mild Chronic Active, Marked
* Clitoral Gland		Degeneration	Chronic, Mild
* Heart		Nephropathy	Chronic, Mild
* Kidney		Basophilic Focus	
* Liver		Fibroadenoma	Multiple
Mammary Gland		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA	TGLs = 1-16,2-15		
* Pituitary Gland	Pars Distalis	Cyst	
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Molar, Peridont Tiss Dentine, Incisor	Inflammation Necrosis	Suppurative, Marked Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 728

**TRT#:** 10  
**DOSE:** 175 PPM

**SEX:** Female  
**DISP:** Scheduled Sacrifice

**DAY ON TEST:** 185  
**HISTO:** 870718

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Liver
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thymus	* Thyroid Gland
Tooth	Trachea	* Urinary Bladder	Uterus

**OBSERVATIONS**

* Kidney	Renal Tubule	Mineralization	Minimal
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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 729

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870719

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
* Clitoral Gland		Adenoma	
Note: ADENOMA	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
* Lung	Alveolar Epith	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA	TGLs = 2-7		
* Thymus		Depletion Lymphoid	Minimal
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 730

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 460

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870720

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
Mammary Gland  
\* Salivary Glands  
\* Thymus  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Nose  
\* Spleen  
\* Thyroid Gland  
Uterus

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Ovary  
Stomach - Forestomach  
Tooth

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Pancreas  
Stomach - Glandular  
Trachea

**MISSING**

\* Parathyroid Gland

**OBSERVATIONS**

\* Pituitary Gland  
Skin

Pars Distalis  
Subcut Tiss

Hyperplasia  
Fibroma

Mild

Note: FIBROMA TGLs = 1-14

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 731

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870721

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	* Bone Marrow	* Brain	* Clitoral Gland
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
Bone	Femur	Fibrous Osteodystrophy	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Mild
* Parathyroid Gland		Adenoma	
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA	TGLs = 2-7		
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-4, LIVER NODULE NOT APPARENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 732

TRT#: 10

SEX: Female

DAY ON TEST: 716

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870722

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Tooth	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
* Clitoral Gland		Hyperplasia	Glandular, Moderate
Note: HYPERPLASIA TGLs = 4-15			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
Note: HDN TGLs = 2-4,3-14			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 1-16			
* Thymus		Depletion Lymphoid	Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY MASS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 733

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870723

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Ovary  
\* Spleen  
Trachea

\* Adrenal Gland - Medulla  
\* Heart  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
\* Pancreas  
Stomach - Forestomach  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Glandular  
Uterus

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Nose  
Skin  
\* Thyroid Gland

MISSING

\* Salivary Glands

\* Thymus

OBSERVATIONS

Bone  
\* Clitoral Gland  
\* Kidney  
\* Liver

Tibia

Osteosclerosis  
Adenoma  
Nephropathy  
Basophilic Focus  
Clear Cell Focus  
Eosinophilic Focus

Moderate  
Chronic, Mild

Note: EOSIN FOCUS TGLs = 1-4,1-14

\* Lung  
Mammary Gland  
\* Pituitary Gland  
Tooth

Alveolar Epith  
Pars Distalis  
Lower, Molar, Peridont Tiss  
Dentine, Incisor

Hyperplasia  
Hyperplasia  
Hyperplasia  
Inflammation  
Necrosis

Mild  
Cystic, Moderate  
Moderate  
Suppurative, Chronic, Moderate  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 734

TRT#: 10

SEX: Female

DAY ON TEST: 716

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870724

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	Esophagus
* Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	* Ovary	* Parathyroid Gland	* Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Brain		Compression	
		Hydrocephalus	Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
Note: LEUKEMIA MONUC	TGLs = 5-4		
Note: HDN	TGLs = 4-4		
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Adenocarcinoma	
		Fibroadenoma	
		Hyperplasia	Cystic, Marked
Note: ADENOCARC	TGLs = 3-15		
Note: FIBROADENOMA	TGLs = 2-16		
* Nose	Sinus	Foreign Body	Mild

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 734

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 716

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870724

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pancreas	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Acinus	Atrophy	Mild
	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 6-7			
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
	Follicular Cel	Adenoma	
Tooth	Ameloblast, Incisor	Degeneration	Minimal
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY TUMORS AND LEUKEMIA

Animal Note: BONE AND TEETH,CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 735

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870725

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

MISSING

\* Salivary Glands

OBSERVATIONS

* Clitoral Gland		Adenoma	
Note: ADENOMA	TGLs = 2-14		
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-15		
Note: CATARACT	TGLs = 1-15		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Intermed	Cyst	
	Pars Distalis	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Moderate
Tooth	Ameloblast, Incisor	Degeneration	Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 736

TRT#: 10

SEX: Female

DAY ON TEST: 647

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870726

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
* Thyroid Gland	Trachea	* Urinary Bladder	

OBSERVATIONS

* Brain		Compression	
		Hydrocephalus	Moderate
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY	TGLs = 4-1		
* Liver		Vacuolization Cytoplasmic	Marked
Note: VACUOLIZ CYTO	TGLs = 5-4		
Mammary Gland		Hyperplasia	Cystic, Marked
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 6-7		
Stomach	Glandular	Ulcer	Mild
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Dysplasia	Minimal
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Cervix	Fibroma	
Note: FIBROMA	TGLs = 3-10,3-15		

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO PITUITARY TUMOR

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 736

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 647

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870726

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 737

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 185

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870727

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

**OBSERVATIONS**

\* Kidney                      Renal Tubule                      Mineralization                      Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 738

TRT#: 10

SEX: Female

DAY ON TEST: 647

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870728

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	Esophagus
* Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	Stomach - Forestomach	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
* Brain		Compression	
		Hydrocephalus	Moderate
* Clitoral Gland		Inflammation	Chronic Active, Mild
Note: INFLAMMATION TGLs = 8-15			
Ear	Pinna	Fibrosarcoma	
Note: FIBROSARC TGLs = 7-19			
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY TGLs = 1-16			
Note: CATARACT TGLs = 1-16			
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-7,6-18			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
	Mucosa	Ulcer	Mild

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 738

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 647

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870728

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland Note: ADENOMA TGLs = 2-14	Pars Distalis	Adenoma	
* Spleen [ Leukemia Mononuclear TGLS = 3-17 ]		Leukemia Mononuclear	
Stomach Note: ULCER TGLs = 9-18	Glandular	Ulcer	Moderate
* Thymus		Depletion Lymphoid	Moderate
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Incisor, Odontoblast	Degeneration	Minimal
	Dentine, Incisor	Dysplasia	Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO LEUKEMIA MONONUCLEAR

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: TGL8-15, IS ALSO MAMMARY GLAND NOT REFERED TO BY TGL

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 739

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870729

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
Uterus

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Inflammation	Chronic Active, Mild
Tooth	Molar, Peridont Tiss	Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 740

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870730

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Kidney	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thymus	* Thyroid Gland	Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Heart		Degeneration	Chronic, Minimal
* Liver		Inflammation	Chronic Active, Mild
Tooth	Molar, Peridont Tiss	Inflammation	Suppurative, Mild
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 741

TRT#: 10

SEX: Female

DAY ON TEST: 719

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870731

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA TGLs = 2-15			
Oral Mucosa	Gingival	Squamous Cell Carcinoma	
Skin		Keratoacanthoma	Multiple
Note: KERATOACANTHOMA TGLs = 1-16,1-17			
Stomach	Forestomach	Acanthosis	Mild
Note: ACANTHOSIS TGLs = 5-6			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Mild
Uterus	Cervix	Carcinoma	
Note: CARCINOMA TGLs = 3-14			

PRIMARY CAUSE OF DEATH

-

Animal Note: NORMAL LIMITS, NCL

Animal Note: TGL4-4, LIVER SUBCAPSULAR CONGESTION WITHIN

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: MORIBUND SAC DUE TO CERVICAL MASS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 742

TRT#: 10

SEX: Female

DAY ON TEST: 185

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870732

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
Mammary Gland  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

**OBSERVATIONS**

\* Ovary  
Note: CYST      TGLs = 1-10

Periovarn Tiss

Cyst

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 743

TRT#: 10

SEX: Female

DAY ON TEST: 719

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870733

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Clitoral Gland		Inflammation	Chronic Active, Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-16		
Note: ATROPHY	TGLs = 1-16		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA	TGLs = 2-14,3-15		
* Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 4-7		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY TUMORS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 744

TRT#: 10

SEX: Female

DAY ON TEST: 719

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870734

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland Note: PHEOCHROM MAL TGLs = 3-15	Medulla	Pheochromocytoma Malignant	
* Clitoral Gland Note: HYPERPLASIA TGLs = 1-10	Duct	Hyperplasia	Squamous, Moderate
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland  Note: FIBROADENOMA TGLs = 2-14		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Ovary	Follicle	Cyst	
* Pituitary Gland  Note: ADENOMA TGLs = 4-7	Pars Distalis	Adenoma	
	Pars Distalis	Hemorrhage	Marked
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: MORIBUND SAC DUE TO MAMMARY AND ADRENAL TUMOR

Animal Note: BONE AND TEETH,CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 745

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 184

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870735

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

**OBSERVATIONS**

Mammary Gland

Hyperplasia

Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 746

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870736

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
Note: EOSIN FOCUS TGLs = 5-15,6-16			
Note: HDN TGLs = 2-14			
Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Cystic, Mild
Note: FIBROADENOMA TGLs = 4-18,3-19,3-20			
* Pituitary Gland	Pars Distalis	Adenoma	Multiple
	Pars Distalis	Congestion	Marked
Note: ADENOMA TGLs = 1-17			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 747

TRT#: 10

SEX: Female

DAY ON TEST: 639

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870737

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

MISSING

* Islets, Pancreatic	* Pancreas
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OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Marked
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Mild
Pharynx	Palate	Squamous Cell Carcinoma	
Note: SQUAM CEL CARC	TGLs = 2-15		
* Spleen		Depletion Lymphoid	Moderate
Stomach	Forestomach	Ulcer	Mild
Note: ULCER	TGLs = 3-6		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Dysplasia	Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, PHARYNX TUMOR

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 748

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870738

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

Bone	Humerus	Osteosclerosis	Minimal
	Thoracic, Vertebra	Osteosclerosis	Mild
	Tibia	Osteosclerosis	Moderate
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
Note: EOSIN FOCUS TGLs = 2-14			
Lymph Node	Deep Cervical	Carcinoma	Metastatic (Thyroid Gland)
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Carcinoma	
	C Cell	Hyperplasia	Mild
Note: CARCINOMA TGLs = 1-15			
Tooth	Dentine, Incisor	Necrosis	Focal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 749

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870739

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Spleen		Leukemia Mononuclear	
* Thymus		Depletion Lymphoid	Marked
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 750

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870740

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	* Bone Marrow	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	* Spleen
Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Hyperplasia	Mild
* Brain		Compression	
		Hydrocephalus	Moderate
* Clitoral Gland		Adenoma	
		Inflammation	Chronic Active, Mild
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Mild
* Liver		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
Note: EOSIN FOCUS TGLs = 2-14			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 1-7			
* Thymus		Depletion Lymphoid	Marked
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

**ANIMAL ID:** 751

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870741

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
Uterus

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
Tooth

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Trachea

**OBSERVATIONS**

\* Kidney  
\* Liver  
\* Thyroid Gland

C Cell

Nephropathy  
Inflammation  
Hyperplasia

Chronic, Minimal  
Chronic Active, Minimal  
Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 752

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870742

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	* Islets, Pancreatic
Lymph Node - Mandibular	* Nose	* Parathyroid Gland	* Salivary Glands
* Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Clitoral Gland		Carcinoma	
Note: CARCINOMA	TGLs = 3-20		
* Heart		Degeneration	Chronic, Mild
Intestine Small	Jejunum	Leiomyoma	
Note: LEIOMYOMA	TGLs = 8-16		
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
Note: HDN	TGLs = 7-14		
* Lung	Alveolar Epith	Hyperplasia	Mild
Lymph Node	Mesenteric	Angiectasis	Marked
Note: ANGIECTASIS	TGLs = 6-17		
Mammary Gland		Fibroadenoma	Multiple
Note: FIBROADENOMA	TGLs = 1-18,4-21		
* Ovary	Periovarn Tiss	Cyst	
Note: CYST	TGLs = 5-10		
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
Skin		Keratoacanthoma	
Note: KERATOACANTHMA	TGLs = 2-19		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 752

**TRT#:** 10  
**DOSE:** 175 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 730  
**HISTO:** 870742

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	C Cell Dentine, Incisor	Hyperplasia Necrosis	Mild Multifocal, Minimal
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 753

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 184

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870743

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 754

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870744

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-15		
Note: CATARACT	TGLs = 1-15		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
Mammary Gland		Fibroadenoma	Multiple
Note: FIBROADENOMA	TGLs = 2-14,3-7		
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 755

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870745

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Tooth	Trachea	* Urinary Bladder
Uterus			

MISSING

\* Thymus

OBSERVATIONS

* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Moderate
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Note: LEUKEMIA MONUC TGLs = 4-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5-2			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 2-14			
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 1-7			
* Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 755

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870745

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 3-15 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 756

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870746

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Clitoral Gland		Hyperplasia	Glandular, Moderate
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus		Adenoma	

Note: ADENOMA TGLs = 1-10

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 757

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870747

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
* Urinary Bladder			

MISSING

Esophagus	Trachea
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OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Bone	Thoracic, Vertebra	Osteosclerosis	Minimal
* Clitoral Gland		Adenoma	
Note: ADENOMA	TGLs = 3-10		
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Mild
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Congestion	Moderate
	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Dysplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:22

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 757

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870747

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Lower, Molar, Peridont Tiss

Inflammation

Suppurative, Chronic, Moderate

Dentine, Incisor

Necrosis

Multifocal, Minimal

Endometrium

Hyperplasia

Cystic, Glandular, Moderate

Uterus

Note: HYPERPLASIA TGLs = 2-15

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 758

TRT#: 10

SEX: Female

DAY ON TEST: 678

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870748

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Nose	* Ovary	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Gland	Medulla	Pheochromocytoma Benign	
* Heart		Degeneration	Chronic, Moderate
* Kidney		Nephropathy	Chronic, Moderate
[ Nephropathy TGLS = 5-1 ]			
* Liver	Bile Duct	Hepatodiaphragmatic Nodule	
		Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: HDN TGLs = 4-15			
Note: VACUOLIZ CYTO TGLs = 1-4,1-15			
* Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-2,3-3			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Marked
* Pancreas	Acinus	Atrophy	Moderate
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-14 ]			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Ameloblast, Incisor	Degeneration	Marked
	Incisor, Odontoblast	Degeneration	Minimal
	Dentine, Incisor	Dysplasia	Moderate
	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 758	<b>TRT#:</b> 10 <b>DOSE:</b> 175 PPM	<b>SEX:</b> Female <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 678 <b>HISTO:</b> 870748
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Uterus	Dentine, Incisor	Necrosis Hemangioma Hemorrhage	Multifocal, Minimal
	Endometrium	Hyperplasia	Mild Cystic, Glandular, Marked

Note: HEMORRHAGE TGLs = 7-17  
Note: HEMANGIOMA TGLs = 6-16

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PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

Animal Note: MORIBUND SAC DUE TO LEUKEMIA AND UTERINE MASS

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 759

TRT#: 10

SEX: Female

DAY ON TEST: 714

DOSE: 175 PPM

DISP: Natural Death

HISTO: 870749

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	* Liver	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	

OBSERVATIONS

Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Mild
* Kidney		Nephropathy	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Marked
* Pituitary Gland	Pars Distalis	Cyst	
Note: CYST	TGLs = 4-7		
* Spleen		Hematopoietic Cell Proliferation	Moderate
Note: HEMA CELL PROL	TGLs = 3-17		
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus		Lymphangiosarcoma	
Note: LYMPHANGIOSARC	TGLs = 2-15,2-16		

PRIMARY CAUSE OF DEATH

-

Animal Note: COD, UTERINE MASS

Animal Note: BONE AND TEETH,CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 760

TRT#: 10

SEX: Female

DAY ON TEST: 185

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870750

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

**MISSING**

Mammary Gland

**OBSERVATIONS**

\* Heart

Degeneration

Chronic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 761

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870751

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Brain		Compression	
* Clitoral Gland		Inflammation	Chronic Active, Minimal
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Marked
* Nose	Mucosa	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Marked
Note: ADENOMA	TGLs = 2-7		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 762

TRT#: 10

SEX: Female

DAY ON TEST: 716

DOSE: 175 PPM

DISP: Moribund Sacrifice

HISTO: 870752

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

Bone	Humerus	Osteosclerosis	Mild
	Thoracic, Vertebra	Osteosclerosis	Mild
	Tibia	Osteosclerosis	Minimal
* Clitoral Gland	Duct	Cyst	
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: ATROPHY	TGLs = 1-14		
Note: CATARACT	TGLs = 1-14		
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hemorrhage	Moderate
Note: ADENOMA	TGLs = 4-7		
Skin	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC	TGLs = 2-15		
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Cervix	Cyst	
Note: [ CYST ]	TGLs = 3-10		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 762

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 716

**DOSE:** 175 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 870752

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: TUMOR

Animal Note: MORIBUND SAC DUE TO SKIN MASS AND PITUITARY

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 763

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870753

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Pancreas  
Skin  
Trachea

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Parathyroid Gland  
Stomach - Forestomach  
\* Urinary Bladder

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Lung  
\* Pituitary Gland  
Stomach - Glandular

\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Nose  
\* Salivary Glands  
\* Thyroid Gland

OBSERVATIONS

Bone  
Eye  
Note: ATROPHY TGLs = 1-14  
Note: CATARACT TGLs = 1-14  
\* Kidney  
\* Liver  
Note: LEUKEMIA MONUC TGLs = 4-4  
Note: HDN TGLs = 5-4  
Lymph Node  
Mammary Gland  
\* Ovary  
Note: CYST TGLs = 3-10  
\* Spleen  
Note: LEUKEMIA MONUC TGLs = 2-15  
\* Thymus

Humerus  
Thoracic, Vertebra  
Tibia  
Retina  
Lens  
Bile Duct  
Mandibular  
Mesenteric  
Periovarn Tiss

Osteosclerosis  
Osteosclerosis  
Osteosclerosis  
Atrophy  
Cataract  
Leukemia Mononuclear  
Nephropathy  
Hepatodiaphragmatic Nodule  
Hyperplasia  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Hyperplasia  
Cyst  
Leukemia Mononuclear  
Depletion Lymphoid

Minimal  
Mild  
Mild  
Marked  
Moderate  
Chronic, Mild  
Marked  
Cystic, Mild  
Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Sodium fluoride  
**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 16:00:22  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 763

**TRT#:** 10  
**DOSE:** 175 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 730  
**HISTO:** 870753

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Moderate

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 764

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870754

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

Bone	Humerus	Osteosclerosis	Mild
	Thoracic, Vertebra	Osteosclerosis	Minimal
	Tibia	Osteosclerosis	Moderate
* Clitoral Gland		Hyperplasia	Glandular, Mild
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Clear Cell Focus	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Moderate
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 765

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870755

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Clitoral Gland		Adenoma	
		Inflammation	Chronic Active, Mild
Note: ADENOMA TGLs = 2-10			
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT TGLs = 1-14			
Note: ATROPHY TGLs = 1-14			
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Minimal
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 3-15			
* Ovary	Periovarn Tiss	Cyst	
Note: CYST TGLs = 4-10			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Mild
	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:23

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 765

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870755

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 766

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870756

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
Trachea

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
\* Urinary Bladder

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
Uterus

OBSERVATIONS

\* Clitoral Gland  
Note: ADENOMA TGLs = 1-15

\* Heart  
\* Kidney  
\* Liver

Adenoma

Degeneration  
Nephropathy  
Basophilic Focus  
Clear Cell Focus  
Eosinophilic Focus  
Inflammation

Chronic, Mild  
Chronic, Moderate

Note: EOSIN FOCUS TGLs = 3-14

Mammary Gland  
\* Pituitary Gland

Note: ADENOMA TGLs = 2-7

\* Thymus  
\* Thyroid Gland  
Tooth

Pars Distalis

C Cell  
Dentine, Incisor

Hyperplasia  
Adenoma

Depletion Lymphoid  
Adenoma  
Necrosis

Chronic Active, Mild  
Cystic, Marked  
Mild  
Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 767

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870757

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Cortex	Hyperplasia	Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Eosinophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: CONGESTION	TGLs = 2-7		
* Thymus		Depletion Lymphoid	Mild
Tongue		Hyperplasia	Squamous, Moderate
Note: HYPERPLASIA	TGLs = 1-14		
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 768

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870758

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder	Uterus	

**OBSERVATIONS**

* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
Note: EOSIN FOCUS TGLs = 1-14			
Mammary Gland		Hyperplasia	Cystic, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Thymus		Depletion Lymphoid	Mild
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:23

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 769

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 184

**DOSE:** 175 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 870759

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Liver  
Mammary Gland  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland  
Uterus

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
\* Lung  
\* Nose  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mandibular  
\* Ovary  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Kidney  
Lymph Node - Mesenteric  
\* Pancreas  
Skin  
\* Thymus  
\* Urinary Bladder

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 770

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870760

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
\* Urinary Bladder

\* Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
Skin  
\* Thyroid Gland

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
\* Spleen  
Tooth

\* Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Forestomach  
Trachea

**OBSERVATIONS**

\* Clitoral Gland  
\* Heart  
\* Kidney  
\* Liver  
Mammary Gland

Inflammation  
Degeneration  
Nephropathy  
Basophilic Focus  
Fibroadenoma  
Hyperplasia

Chronic Active, Moderate  
Chronic, Minimal  
Chronic, Minimal  
Cystic, Mild

Note: FIBROADENOMA TGLs = 1-15

\* Pituitary Gland  
\* Thymus  
Uterus

Pars Distalis

Hyperplasia  
Depletion Lymphoid  
Adenoma

Mild  
Moderate

Note: ADENOMA TGLs = 2-14

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 771

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870761

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
Esophagus	* Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

Bone	Thoracic, Vertebra Tibia	Osteosclerosis Osteosclerosis	Mild Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Islets, Pancreatic		Hyperplasia	Moderate
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Inflammation	Chronic Active, Minimal
Mammary Gland		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 1-10			
* Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Congestion	Multiple Moderate
Note: ADENOMA TGLs = 2-7			
* Thymus		Depletion Lymphoid	Moderate
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: MAMMARY GLAND HYPERPLASTIC CYST

Animal Note: TGL3-14, MULTIPLE FOCI NOT APPARENT ON MICRO

Animal Note: TGL1-10, NOT CLITORAL GLAND, APPEARS TO BE

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 772

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870762

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
* Thyroid Gland	Trachea	* Urinary Bladder	Uterus

**OBSERVATIONS**

Bone	Humerus	Osteosclerosis	Mild
	Thoracic, Vertebra	Osteosclerosis	Mild
	Tibia	Osteosclerosis	Mild
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Basophilic Focus	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 773

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870763

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	* Bone Marrow	* Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Gland	Cortex	Hypertrophy	Mild
Bone	Maxilla	Osteosclerosis	Minimal
	Thoracic, Vertebra	Osteosclerosis	Minimal
	Tibia	Osteosclerosis	Moderate
* Clitoral Gland	Duct	Cyst	
		Inflammation	Chronic Active, Moderate
Note: CYST	TGLs = 1-10		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Mild
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 774

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870764

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	Bone	* Bone Marrow
* Brain	* Clitoral Gland	Esophagus	* Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	Stomach - Glandular	Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Kidney		Nephropathy	Chronic, Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
Note: LEUKEMIA MONUC TGLs = 2-4			
* Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION TGLs = 4-14			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Congestion	Moderate
Note: ADENOMA TGLs = 3-7			
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-1 ]			
Stomach	Forestomach	Acanthosis	Moderate
Note: ACANTHOSIS TGLs = 5-15			
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	C Cell	Adenoma	
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 775

TRT#: 10

SEX: Female

DAY ON TEST: 459

DOSE: 175 PPM

DISP: Scheduled Sacrifice

HISTO: 870765

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Gland - Cortex  
\* Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
\* Lung  
\* Nose  
\* Salivary Glands  
Stomach - Glandular  
Trachea

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
\* Ovary  
Skin  
\* Thymus  
\* Urinary Bladder

Bone  
Esophagus  
Intestine Large - Rectum  
\* Islets, Pancreatic  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
\* Spleen  
\* Thyroid Gland

\* Bone Marrow  
\* Heart  
Intestine Small - Duodenum  
\* Liver  
Mammary Gland  
\* Pituitary Gland  
Stomach - Forestomach  
Tooth

**OBSERVATIONS**

* Kidney		Nephropathy	Chronic, Minimal
* Pancreas	Acinus	Atrophy	Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 776

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870766

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Gland - Medulla  
\* Clitoral Gland  
Intestine Large - Rectum  
\* Islets, Pancreatic  
\* Nose  
\* Salivary Glands  
Tooth

Bone  
Esophagus  
Intestine Small - Duodenum  
\* Lung  
\* Ovary  
\* Spleen  
Trachea

\* Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
\* Pancreas  
Stomach - Forestomach  
\* Urinary Bladder

\* Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
\* Parathyroid Gland  
Stomach - Glandular  
Uterus

OBSERVATIONS

\* Adrenal Gland  
\* Heart  
\* Kidney  
\* Liver

Cortex

Hyperplasia  
Degeneration  
Nephropathy  
Basophilic Focus  
Hepatodiaphragmatic Nodule

Mild  
Chronic, Minimal  
Chronic, Mild

Note: HDN TGLs = 2-14

Mammary Gland  
\* Pituitary Gland  
Skin

Pars Distalis  
Subcut Tiss

Hyperplasia  
Hyperplasia  
Lipoma

Cystic, Mild  
Mild

Note: LIPOMA TGLs = 1-15

\* Thymus  
\* Thyroid Gland

C Cell

Depletion Lymphoid  
Adenoma

Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 777

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870767

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	Bone	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	* Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	* Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
Skin	* Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Gland	Cortex	Accessory Adrenal Cortical Nodule	
Note: 1991 CONVERSION DISCREPANCY. ORIGINAL DIAGNOSIS SITE NOT SPECIFIED.			
* Kidney		Nephropathy	Chronic, Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Chronic Active, Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3-4,3-14			
Note: HDN TGLs = 2-14			
* Lung		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
Note: HYPERPLASIA TGLs = 1-7			
* Thymus		Depletion Lymphoid	Marked
* Thyroid Gland	C Cell	Hyperplasia	Mild
Tooth	Ameloblast, Incisor	Degeneration	Moderate
	Dentine, Incisor	Dysplasia	Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:23

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 777

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870767

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 778

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870768

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Medulla	* Bone Marrow	* Brain	Esophagus
* Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	* Islets, Pancreatic
* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	Skin
* Spleen	Stomach - Forestomach	Stomach - Glandular	* Thyroid Gland
Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Gland	Cortex	Degeneration	Cystic, Mild
	Cortex	Hyperplasia	Mild
	Cortex	Hypertrophy	Mild
Bone	Thoracic, Vertebra	Osteosclerosis	Minimal
	Tibia	Osteosclerosis	Minimal
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Hepatocellular Adenoma	
Note: HEPATOCLR ADEN	TGLs = 3-14		
Note: BASOPH FOCUS	TGLs = 3-14,3-4		
Note: EOSIN FOCUS	TGLs = 3-15		
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 1-17 ]			
* Nose	Sinus	Foreign Body	Moderate
	Mucosa	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Cyst	
* Thymus		Depletion Lymphoid	Moderate
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05131-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Sodium fluoride

**CAS Number:** 7681-49-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 16:00:23

**First Dose M/F:** NA / NA

**Lab:** BAT

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**ANIMAL ID:** 778

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 175 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 870768

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Uterus

Cervix

Cyst

Cystic, Glandular, Mild

Endometrium

Hyperplasia

Note: CYST      TGLs = 2-16

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PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 779

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870769

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Gland	Medulla	Cyst	
	Cortex	Hypertrophy	Mild
Bone	Humerus	Osteosclerosis	Mild
	Maxilla	Osteosclerosis	Mild
	Thoracic, Vertebra	Osteosclerosis	Mild
	Tibia	Osteosclerosis	Moderate
* Brain		Astrocytoma Malignant	
* Clitoral Gland	Duct	Hyperplasia	Squamous, Moderate
Eye	Retina	Atrophy	Marked
	Lens	Cataract	Moderate
Note: CATARACT	TGLs = 1-14		
Note: ATROPHY	TGLs = 1-14		
* Heart		Degeneration	Chronic, Minimal
* Kidney		Nephropathy	Chronic, Mild
* Liver		Inflammation	Chronic Active, Mild
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	Multiple
	Pars Distalis	Congestion	Moderate
* Thymus		Depletion Lymphoid	Moderate
* Thyroid Gland	Bilateral, C Cell	Adenoma	
Tooth	Lower, Molar, Peridont Tiss	Inflammation	Suppurative, Chronic, Mild
	Dentine, Incisor	Necrosis	Multifocal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05131-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Sodium fluoride

CAS Number: 7681-49-4

Date Report Requested: 10/22/2014

Time Report Requested: 16:00:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 780

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 175 PPM

DISP: Terminal Sacrifice

HISTO: 870770

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Gland - Cortex	* Adrenal Gland - Medulla	* Bone Marrow	* Brain
* Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
* Islets, Pancreatic	* Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	Skin	* Spleen	Stomach - Forestomach
Stomach - Glandular	* Thyroid Gland	Trachea	* Urinary Bladder

OBSERVATIONS

Bone	Tibia	Osteosclerosis	Minimal
* Heart		Inflammation	Chronic Active, Marked
Note: INFLAMMATION TGLs = 2-4,2-15			
* Kidney		Nephropathy	Chronic, Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Moderate
		Inflammation	Chronic Active, Mild
Note: CLEAR CL FOCUS TGLs = 3-14			
Mammary Gland		Hyperplasia	Cystic, Mild
* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Moderate
* Thymus		Depletion Lymphoid	Mild
Tooth	Dentine, Incisor	Necrosis	Multifocal, Minimal
Uterus	Endometrium	Hyperplasia	Cystic, Glandular, Mild
Note: HYPERPLASIA TGLs = 1-10			

PRIMARY CAUSE OF DEATH

-

Animal Note: BONE AND TEETH, CA F2 GRANULES PRESENT

\*\* END OF REPORT \*\*

\* PROTOCOL REQUIRED TISSUE