

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

<b>C Number:</b>	C55196
<b>Lock Date:</b>	Not Entered.
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Both
<b>PWG Approval Date</b>	10/15/1986

Experiment Number: 05051-01

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Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 1

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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
Lymph Node - Mesenteric	Parathyroid Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Trachea	Urinary Bladder		

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
	Medulla	Pheochromocytoma Benign	
Blood		Leukemia Mononuclear	
Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Colon	Parasite Metazoan	
Kidney		Nephropathy	Chronic, Moderate
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3		
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4		
Lymph Node	Mandibular	Cyst	
	Mandibular	Hyperplasia	Lymphoid, Moderate
Mammary Gland	Duct	Cyst	
Note: CYST	TGLs = 1		
Nose	Lumen	Inflammation	Suppurative, Moderate
Pancreas	Acinus	Atrophy	Marked
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
Note: ADENOMA	TGLs = 5		
[ Angiectasis TGLS = 5 ]			

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

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Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 1	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 734
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Prostate		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2		
Testes	Interstit Cell	Adenoma	Multiple
		Atrophy	Moderate
Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Focal, Mild
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 1

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 0.25%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	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	Pancreas	Preputial Gland
Salivary Glands	Stomach - Forestomach	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Ear			
Note: MIDDLE & EXTERNAL EAR- NORMAL			
Epididymis		Atypia Cellular	
		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Marked
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 7			
Liver		Inflammation	Granulomatous, Multifocal, Moderate
Lymph Node	Mandibular	Infiltration Cellular	Plasma Cell, Moderate
	Pancreatic	Inflammation	Granulomatous, Moderate
	Pancreatic	Mineralization	Mild
Note: INFLAMMATION TGLs = 3			
Note: MINERALIZATION TGLs = 3			
Parathyroid Gland		Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 9			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
Note: ADENOMA TGLs = 10			
Note: ANGIECTASIS TGLs = 10			
Prostate		Inflammation	Suppurative, Moderate
Seminal Vesicle	Epithelium	Hyperplasia	Moderate
Skin		Squamous Cell Papilloma	

\* PROTOCOL REQUIRED TISSUE

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 1	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 728 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: PAPILLOMA SQUA	TGLs = 1		
Spleen		Fibrosis	Focal, Moderate
Note: FIBROSIS	TGLs = 2		
Stomach		Glandular	Mineralization
Testes			Aspermatogenesis
			Atrophy
			Degeneration
		Interstitial Cell	Hyperplasia
Note: DEGEN	TGLs = 6		
Note: ATROPHY	TGLs = 6		
Note: ASPERMATOGEN	TGLs = 6		

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**PRIMARY CAUSE OF DEATH** -

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Animal Note: EXT.&MIDDLE EAR-NORMAL

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Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 1

TRT#: 5

DOSE: 0.13%

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Ear	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
Nose	Pancreas	Parathyroid Gland	Salivary Glands
Stomach - Forestomach	Stomach - Glandular	Trachea	Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Bone Marrow		Leukemia Mononuclear	
Ear			
Note: EXTERNAL& MIDDLEEAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Angiectasis	Mild
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5			
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 4			
Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Focal, Mild
Preputial Gland		Carcinoma	
Note: CARCINOMA TGLs = 2			
Prostate		Fibrosis	Moderate
Seminal Vesicle		Fibrosis	Moderate
Skin	Subcut Tiss	Fibroma	

\* PROTOCOL REQUIRED TISSUE

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 1	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b>
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Note: FIBROMA	TGLs = 3		
Spleen		Leukemia Mononuclear	
Testes		Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
Note: ADENOMA	TGLs = 7		
Thyroid Gland		Hyperplasia	Focal, Mild
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 1 <b>DOSE:</b> UNTREATD CONTROL	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 715 <b>HISTO:</b>
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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
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Pancreas
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach - Forestomach	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Blood		Hypochromasia	
Note: HYPOCHROMASIA TGLs = 2			
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 5			
Liver	Centrilobular	Cytologic Alterations	Focal, Moderate
		Degeneration	Moderate
		Degeneration	Cystic, Focal, Moderate
Note: DEGEN TGLs = 6			
Mammary Gland	Duct	Cyst	
Nose	Lumen	Fungus	
Parathyroid Gland		Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 8			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
		Carcinoma	
Preputial Gland			
Note: CARCINOMA TGLs = 1			
Prostate		Inflammation	Suppurative, Marked
Stomach	Glandular	Mineralization	Marked
Testes	Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:39

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

**Lab:** SRI

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<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 715
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Aspermatogenesis

Mild

Atrophy

Moderate

Note: ADENOMA TGLs = 4

Note: ATROPHY TGLs = 3

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

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Species/Strain: Rat/F 344/N

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Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 387 <b>HISTO:</b>
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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 Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Pancreas	Parathyroid Gland	Salivary Glands
Seminal Vesicle	Skin	Spleen	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Intestine Large - Rectum	Nose	Preputial Gland
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**OBSERVATIONS**

Epididymis		Atypia Cellular	
		Depletion Cellular	Marked
Kidney		Nephropathy	Chronic, Moderate
Liver		Vacuolization Cytoplasmic	Diffuse, Moderate
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Carcinoma	
Note: ANGIECTASIS TGLs = 3 [ Angiectasis TGLS = 3 ]			
Prostate		Inflammation	Suppurative, Moderate
Stomach	Forestomach	Edema	Moderate
	Glandular	Edema	Moderate
	Forestomach	Ulcer	Focal, Mild
Note: EDEMA TGLs = 4			
Note: ULCER TGLs = 4			
Testes		Aspermatogenesis	Moderate
		Atrophy	Moderate
		Degeneration	Moderate
Note: ATROPHY TGLs = 2			

PRIMARY CAUSE OF DEATH	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**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
Liver	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Pituitary Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

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**MISSING**

Parathyroid Gland

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**OBSERVATIONS**

Adrenal Gland	Medulla	Hyperplasia	Focal, Minimal
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Mild
Kidney	Renal Tubule	Adenoma	
		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 5			
Lung		Congestion	Moderate
	Mediastinum	Pigmentation	Hemosiderin, Mild
Note: PIGMENT TGLs = 7 [ Pigmentation TGLS = 7 ]			
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 2			
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Moderate
Note: ATROPHY TGLs = 4			
Note: ADENOMA TGLs = 3			

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 1 <b>DOSE:</b> UNTREATD CONTROL	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 633 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone Marrow	Brain
Esophagus	Eye	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
Nose	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Bone		Fibrosarcoma	Metastatic (Skin)
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Pancreas		Leukemia Mononuclear	
Skin	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC	TGLs = 2		
Spleen		Leukemia Mononuclear	
Testes	Interstit Cell	Adenoma	
		Aspermatogenesis	Mild
		Atrophy	Moderate
Note: ADENOMA	TGLs = 1		

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 716 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone Marrow	Brain	Ear
Esophagus	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lymph Node - Mandibular
Mammary Gland	Nose	Salivary Glands	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
	Medulla	Pheochromocytoma Benign	
Bone		Fibrous Osteodystrophy	
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Moderate
Eye		Cataract	Moderate
	Retina	Degeneration	Marked
Note: DEGEN TGLs = 3			
Note: CATARACT TGLs = 3			
Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Cecum, Submucosa	Edema	Marked
Note: EDEMA TGLs = 2			
Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Marked
Note: CYST TGLs = 9			
Note: NEPHROPATHY TGLs = 10			
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Mixed Cell Focus	
Note: LEUKEMIA MONUC TGLs = 11,12			
Lung		Leukemia Mononuclear	
Lymph Node	Mesenteric	Angiectasis	Marked
	Mesenteric	Hyperplasia	Lymphoid, Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 716 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

Pancreas Note: EDEMA TGLs = 6	Mesenteric Adventitia	Mineralization Edema	Mild Moderate
Parathyroid Gland Note: HYPERPLASIA TGLs = 13		Hyperplasia	Marked
Pituitary Gland		Leukemia Mononuclear	
Preputial Gland		Fibrosis	Moderate
Prostate		Inflammation	Suppurative, Moderate
Seminal Vesicle		Atrophy	Marked
Skin Note: KERATOACANTHOMA TGLs = 1		Keratoacanthoma	
Spleen Note: LEUKEMIA MONUC TGLs = 7,8		Leukemia Mononuclear	
Stomach	Forestomach Glandular	Mineralization Mineralization	Mild Moderate
Testes Note: ATROPHY TGLs = 5 Note: ASPERMATOGEN TGLs = 6 Note: DEGEN TGLs = 6		Aspermatogenesis Atrophy Degeneration	Marked Marked Marked

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

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Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 728 <b>HISTO:</b>
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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
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder		

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Multifocal, Mild
Epididymis		Depletion Cellular	Moderate
Heart	Atrium	Fibrosis	Multifocal, Moderate
		Thrombosis	Marked
[ Thrombosis TGLS = 8 ]			
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 5			
Liver		Congestion	Moderate
		Degeneration	Cystic, Focal, Mild
Note: CONGESTION TGLs = 7			
Lung			
Note: LUNG- HEART FAILURE CELLS			
Preputial Gland		Carcinoma	
		Fibrosis	Moderate
		Inflammation	Suppurative, Mild
Note: CARCINOMA TGLs = 1			
Note: INFLAMMATION TGLs = 2			
Note: FIBROSIS TGLs = 2			
Testes	Interstit Cell	Adenoma	Multiple

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:39

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

**Lab:** SRI

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**ANIMAL ID:** 3

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 0.13%

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Aspermatogenesis

Mild

Atrophy

Moderate

Note: ATROPHY      TGLs = 3

Note: ADENOMA      TGLs = 4

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 4

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Esophagus
Intestine Large - Cecum	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	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

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Colon	Parasite Metazoan	
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Moderate
Liver		Neoplastic Nodule	
Mesentery	Fat	Mesothelioma Malignant	
		Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 2			
Note: MESOTHELIO MAL TGLs = 1			
Testes	Interstit Cell	Adenoma	
		Aspermatogenesis	Mild
		Atrophy	Moderate
		Mesothelioma Malignant	

Note: ADENOMA TGLs = 3

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Dead	<b>DAY ON TEST:</b> 559 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Esophagus	Islets, Pancreatic	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

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**AUTO PRECLUDES DIAG.**

Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum		

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**OBSERVATIONS**

Adrenal Gland Note: PHEOCHROM BGN TGLs = 5	Medulla	Pheochromocytoma Benign	
Epididymis		Depletion Cellular	Moderate
Heart Note: THROMBUS TGLs = 8	Atrium	Fibrosis Thrombosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Liver Note: HYPERPLASIA TGLs = 7 [ Hyperplasia TGLS = 7 ]	Bile Duct	Hyperplasia Necrosis	Moderate Coagulative, Multifocal, Mild
Prostate		Inflammation	Suppurative, Mild
Skin Note: BASAL CEL CARC TGLs = 1		Basal Cell Carcinoma	
Spleen Note: HEMA CELL PROL TGLs = 4		Hematopoietic Cell Proliferation	Marked
Testes Note: ATROPHY TGLs = 3	Interstit Cell	Adenoma Aspermatogenesis Atrophy	Multiple Moderate Moderate

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:39

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

**Lab:** SRI

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**ANIMAL ID:** 4

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 559

**DOSE:** 0.25%

**DISP:** Dead

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone Marrow	Brain	Ear	Esophagus
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Liver	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	Multiple
	Cortex	Vacuolization Cytoplasmic	Focal, Marked
Note: PHEOCHROM BGN TGLs = 9			
Note: VACUOLIZ CYTO TGLs = 9			
Bone	Femur	Osteosarcoma	
Note: OSTEOSARC TGLs = 6			
Ear			
Note: EXTERNAL & MIDDLE EAR- NORMAL			
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
	Atrium	Thrombosis	Mild
	Cecum, Submucosa	Edema	Marked
Intestine Large			
Note: EDEMA TGLs = 1			
Kidney	Cortex	Cyst	Multiple
		Nephropathy	Chronic, Marked
Note: CYST TGLs = 10			
Note: NEPHROPATHY TGLs = 10			
Lung		Infiltration Cellular	Histiocyte, Mild
Note: INFILTRAT CELL TGLs = 3			
Lymph Node	Mediastinal	Congestion	Moderate
Note: CONGESTION TGLs = 4			
Pancreas	Acinus	Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Parathyroid Gland Note: HYPERPLASIA TGLs = 5		Hyperplasia	Moderate
Testes Note: ADENOMA TGLs = 8	Interstit Cell  Tunic	Adenoma Aspermatogenesis Atrophy Mesothelioma Benign	Multiple Mild Marked
<b>PRIMARY CAUSE OF DEATH</b>	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 1 <b>DOSE:</b> UNTREATD CONTROL	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 643 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Ear	Esophagus
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lymph Node - Mandibular
Mammary Gland	Nose	Parathyroid Gland	Preputial Gland
Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Focal, Moderate
	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Note: LEUKEMIA MONUC TGLs = 6			
Bone Marrow		Leukemia Mononuclear	
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Mild
Heart		Fibrosis	Multifocal, Moderate
		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
Liver		Hyperplasia	Nodular, Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7			
Note: HYPERPLASIA TGLs = 1			
Lung		Leukemia Mononuclear	
Lymph Node	Mesenteric	Leukemia Mononuclear	
Pancreas	Acinus	Atrophy	Moderate
		Leukemia Mononuclear	
Pituitary Gland		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 643
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Prostate		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5		
Testes	Interstit Cell	Adenoma	
		Atrophy	Moderate
Note: ATROPHY	TGLs = 4		
Note: ADENOMA	TGLs = 3		

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 705 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Brain	Ear	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	Pancreas	Preputial Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla Cortex	Pheochromocytoma Benign Vacuolization Cytoplasmic Fibrous Osteodystrophy Myelofibrosis	Focal, Moderate  Moderate
Bone Bone Marrow Ear Note: EXT&MIDDLE EAR-NORMAL			
Epididymis		Atypia Cellular Depletion Cellular	Marked
Heart Kidney Note: NEPHROPATHY   TGLs = 2		Fibrosis Nephropathy	Multifocal, Moderate Chronic, Marked
Liver  Note: HYPERPLASIA   TGLs = 3,4 Note: LEUKEMIA MONUC   TGLs = 3,4	Bile Duct	Hyperplasia Leukemia Mononuclear	Moderate
Lymph Node Parathyroid Gland Note: HYPERPLASIA   TGLs = 5	Mandibular	Hyperplasia Hyperplasia	Lymphoid, Moderate Moderate
Pituitary Gland  Note: ANGIECTASIS   TGLs = 7 [ Angiectasis TGLS = 7 ]	Pars Distalis Pars Distalis	Adenoma Angiectasis	Moderate
Prostate		Inflammation	Suppurative, Moderate

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 705 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Seminal Vesicle		Atrophy	Marked
	Epithelium	Hyperplasia	Mild
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Marked
	Perivascular	Infiltration Cellular	Mononuclear CI, Moderate
	Arteriole	Necrosis	Fibrinoid, Moderate
Note: ATROPHY	TGLs = 1		
Note: DEGEN	TGLs = 1		
Note: ASPERMATOGEN	TGLs = 1		
Thyroid Gland	C Cell	Adenoma	

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 5                      **TRT#:** 5                      **SEX:** Male                      **DAY ON TEST:** 601  
**DOSE:** 0.13%                      **DISP:** Moribund                      **HISTO:**

**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	Nose
Pancreas	Parathyroid Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**OBSERVATIONS**

Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Brain		Compression	Moderate
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY      TGLs = 7			
Liver		Cytologic Alterations	Multifocal, Mild
Mammary Gland	Duct	Cyst	
Note: CYST              TGLs = 1,5			
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS              TGLs = 2			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 8 ]			
Prostate		Fibrosis	Moderate
Testes	Interstit Cell	Hyperplasia	Minimal
	Perivascular	Infiltration Cellular	Mononuclear CI, Mild
	Arteriole	Necrosis	Fibrinoid, Mild
Note: TESTES-MASS NOT FOUND.			

**PRIMARY CAUSE OF DEATH**                      -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 1 <b>DOSE:</b> UNTREATD CONTROL	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 729 <b>HISTO:</b>
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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	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
	Medulla	Pheochromocytoma Benign	
	Medulla	Pheochromocytoma Malignant	
	Cortex	Vacuolization Cytoplasmic	Focal, Marked
Note: HYPERPLASIA TGLs = 6			
Note: PHEOCHROM MAL TGLs = 6			
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Mild
	Atrium	Thrombosis	
[ Fibrosis TGLS = 11 ]			
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 7			
Liver		Necrosis	Coagulative, Multifocal, Moderate
Note: NECROSIS TGLs = 9			
Lung		Atelectasis	Moderate
	Arteriole	Hypertrophy	Moderate
Note: ATELECTASIS TGLs = 10			
Preputial Gland		Fibrosis	Moderate
Skin	Sebaceous GI	Carcinoma	
		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1			
Note: CARCINOMA TGLs = 2			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Spleen		Hematopoietic Cell Proliferation	Mild
Note: HEMA CELL PROL	TGLs = 5		
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Moderate
Note: ADENOMA	TGLs = 4		
Note: ATROPHY	TGLs = 3		

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 6

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

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	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Parathyroid Gland	Preputial Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Thymus	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Epididymis		Atypia Cellular	
		Depletion Cellular	Marked
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
Note: SLIDE J-EYE			
Note: CATARACT	TGLs = 11		
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY	TGLs = 5,6,7		
Liver		Angiectasis	Moderate
		Cytologic Alterations	Multifocal, Moderate
Lung		Atelectasis	Mild
Note: ATELECTASIS	TGLs = 9		
Mammary Gland	Duct	Cyst	
Note: CYST	TGLs = 2		
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Carcinoma	
[ Carcinoma TGLS = 10 ]			
Prostate		Inflammation	Suppurative, Marked
Note: INFLAMMATION	TGLs = 4		
Seminal Vesicle		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Stomach	Glandular	Mineralization	Mild
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Marked
	Perivascular Arteriole	Infiltration Cellular Necrosis	Mononuclear CI, Moderate Fibrinoid, Marked
Note: ASPERMATOGEN TGLs = 3 Note: DEGEN TGLs = 3 Note: ATROPHY TGLs = 3			
Thyroid Gland	C Cell	Adenoma	

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 720 <b>HISTO:</b>
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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	Preputial Gland	Prostate
Salivary Glands	Skin	Spleen	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Cortex	Hypertrophy	Focal, Moderate
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Blood Vessel	Aorta	Mineralization	Marked
Note: MINERALIZATION TGLs = 2			
Bone		Fibrous Osteodystrophy	Moderate
Epididymis		Depletion Cellular	Marked
Eye	Antr Chamber	Inflammation	Suppurative, Moderate
Note: INFLAMMATION TGLs = 3			
Heart		Fibrosis	Multifocal, Moderate
		Mineralization	Multifocal, Moderate
Kidney	Cortex	Cyst	Multiple
	Pelvis	Hydronephrosis	Moderate
		Mineralization	Moderate
		Nephropathy	Chronic, Marked
Note: MINERALIZATION TGLs = 9			
Note: HYDRONEPHROSIS TGLs = 10			
Note: NEPHROPATHY TGLs = 7			
Note: CYST TGLs = 8			
Liver		Cytologic Alterations	Focal, Mild
	Bile Duct	Hyperplasia	Moderate
Lung	Alveolus	Mineralization	Multifocal, Moderate
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1			

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 720 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Pancreas	Acinus	Atrophy	Mild
Parathyroid Gland		Hyperplasia	Marked
Note: HYPERPLASIA	TGLs = 11		
Pituitary Gland	Pars Distalis	Adenoma	
Seminal Vesicle		Mineralization	Moderate
Stomach	Forestomach	Mineralization	Marked
	Glandular	Mineralization	Marked
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
	Perivascular	Infiltration Cellular	Mononuclear CI, Mild
	Arteriole	Necrosis	Fibrinoid, Mild
Note: ATROPHY	TGLs = 5		
Note: ADENOMA	TGLs = 6		
<b>PRIMARY CAUSE OF DEATH</b>	-		

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 7

TRT#: 1

SEX: Male

DAY ON TEST: 695

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	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
Nose	Pancreas	Parathyroid Gland	Preputial Gland
Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Focal, Moderate
	Medulla	Hyperplasia	Focal, Moderate
	Medulla	Pheochromocytoma Benign	
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Brain		Astrocytoma Malignant	
Epididymis		Depletion Cellular	Marked
		Mesothelioma Malignant	
Note: MESOTHELIO MAL TGLs = 6			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 8			
Liver		Angiectasis	Moderate
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 10			
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 11			
Lymph Node	Mediastinal	Leukemia Mononuclear	
Mesentery		Mesothelioma Malignant	
Note: PERITONEUM-MESOTHELIOMA			
Note: MESOTHELIO MAL TGLs = 2			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 695
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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ORGAN AND ACCOUNTABLE SITE STATUS			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
Note: ANGIECTASIS	TGLs = 12		
Note: ADENOMA	TGLs = 12		
Prostate		Inflammation	Suppurative, Moderate
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 7		
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
	Tunic	Mesothelioma Malignant	
Note: ATROPHY	TGLs = 5		
Note: ADENOMA	TGLs = 4		
Note: MESOTHELIO MAL	TGLs = 1		
Note: MESOTHELIO MAL	TGLs = 4		

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PRIMARY CAUSE OF DEATH	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 7

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Ear
Esophagus	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lymph Node - Mesenteric	Nose	Preputial Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Epididymis		Atypia Cellular	
		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Mild
Intestine Large	Cecum	Parasite Metazoan	
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 2			
Lung		Infiltration Cellular	Lymphocyte, Focal, Moderate
Lymph Node	Mandibular	Cyst	
	Mandibular	Hyperplasia	Lymphoid, Moderate
Mammary Gland	Duct	Cyst	
Pancreas	Acinus	Atrophy	Mild
Parathyroid Gland		Hyperplasia	Marked
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
Note: ADENOMA TGLs = 3			
[ Angiectasis TGLS = 3 ]			
Prostate		Cyst	
		Inflammation	Suppurative, Moderate
		Mineralization	Multifocal, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Seminal Vesicle	Epithelium	Hyperplasia	Moderate
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Marked
	Perivascular	Infiltration Cellular	Mononuclear CI, Moderate
	Tunic	Mesothelioma Malignant	
	Arteriole	Necrosis	Fibrinoid, Moderate

Note: INFILTRAT CELL TGLs = 1  
Note: ATROPHY TGLs = 1  
Note: NECROSIS TGLs = 1  
Note: ASPERMATOGEN TGLs = 1  
Note: DEGEN TGLs = 1

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b>
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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 Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lymph Node - Mesenteric	Mammary Gland	Nose	Pancreas
Preputial Gland	Salivary Glands	Seminal Vesicle	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Mild
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Rectum	Parasite Metazoan	
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 4,5			
Lung	Alveolar Epith	Hyperplasia	Multifocal, Marked
Note: HYPERPLASIA TGLs = 7,6			
Lymph Node	Mandibular	Cyst	
Note: CYST TGLs = 2			
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
Prostate		Inflammation	Suppurative, Minimal
Skin	Sebaceous Gl, Subcut Tiss	Adenoma	
Note: ADENOMA TGLs = 1		Cyst Epithelial Inclusion	
Note: CYST EPITH INC TGLs = 1			
Testes	Interstit Cell	Adenoma	Multiple
		Atrophy	Mild
	Perivascular	Infiltration Cellular	Mononuclear CI, Mild
	Arteriole	Necrosis	Fibrinoid, Mild
Note: ADENOMA TGLs = 3			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:39

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

**Lab:** SRI

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<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Thyroid Gland	Ultimobranchial Cyst
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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 734
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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	Lymph Node - Mesenteric
Mammary Gland	Nose	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Blood		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Moderate
Kidney	Renal Tubule	Hyperplasia	Focal, Mild
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 6			
Liver		Cytologic Alterations	Focal, Moderate
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7			
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 8			
Lymph Node	Pancreatic	Hyperplasia	Lymphoid, Moderate
	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
Note: HYPERPLASIA TGLs = 1			
Pancreas	Acinus	Atrophy	Marked
Preputial Gland		Adenoma	
	Duct	Cyst	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 734
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: CYST	TGLs = 2		
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5		
Testes		Adenoma	
		Aspermatogenesis	Mild
		Atrophy	Moderate
Note: ATROPHY	TGLs = 4		
Note: ADENOMA	TGLs = 3		

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Parathyroid Gland	Preputial Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Ear			
Note: EXT&MIDDLE EAR-NORMAL			
Epididymis		Atypia Cellular	
		Depletion Cellular	Moderate
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
Note: DEGEN TGLs = 4			
Note: CATARACT TGLs = 4			
Heart		Fibrosis	Multifocal, Moderate
Islets, Pancreatic		Carcinoma	
Kidney		Nephropathy	Chronic, Marked
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Cyst	
Prostate		Inflammation	Suppurative, Moderate
Seminal Vesicle	Epithelium	Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 3			
Testes	Interstit Cell	Adenoma	
		Aspermatogenesis	Marked
		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:39

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

**Lab:** SRI

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<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

Degeneration

Moderate

Note: DEGEN TGLs = 2  
Note: ASPERMATOGEN TGLs = 2  
Note: ATROPHY TGLs = 2

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 699 <b>HISTO:</b>
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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 - Forestomach	Stomach - Glandular
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Thymus

OBSERVATIONS

Brain [ Compression TGLS = 11 ]		Compression	Moderate
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Moderate
Kidney Note: NEPHROPATHY TGLs = 8		Nephropathy	Chronic, Moderate
Liver Note: NEOPLASTIC NOD TGLs = 2		Neoplastic Nodule	
Lymph Node Note: HYPERPLASIA TGLs = 3	Renal	Hyperplasia	Lymphoid, Mild
Mammary Gland Note: CYST TGLs = 1	Duct	Cyst	
Pituitary Gland [ Adenoma TGLS = 10 ] [ Angiectasis TGLS = 10 ]	Pars Distalis Pars Distalis	Adenoma Angiectasis	Moderate
Prostate Note: INFLAMMATION TGLs = 7		Inflammation	Suppurative, Moderate
Skin Note: KERATOACANTHMA TGLs = 4		Keratoacanthoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:39

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

**Lab:** SRI

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<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 699 <b>HISTO:</b>
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Testes	Interstit Cell	Adenoma	Multiple
		Atrophy	Mild
	Perivascular	Infiltration Cellular	Mononuclear CI, Mild
	Arteriole	Necrosis	Fibrinoid, Mild

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Note: ADENOMA      TGLs = 6

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 1 <b>DOSE:</b> UNTREATD CONTROL	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 554 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Blood		Leukemia Mononuclear	
Bone Marrow		Hyperplasia	Reticulum Cell, Moderate
Epididymis		Depletion Cellular	Mild
Heart		Fibrosis	Multifocal, Mild
Intestine Small	Ileum	Leukemia Mononuclear	
	Jejunum	Leukemia Mononuclear	
Kidney	Cortex	Leukemia Mononuclear	
		Necrosis	Moderate
		Nephropathy	Chronic, Mild
Note: LEUKEMIA MONUC TGLs = 11,12			
Lacrimal Gland		Atrophy	Mild
		Inflammation	Chronic, Moderate
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 17			
Lung		Hemorrhage	Multifocal, Mild
		Infiltration Cellular	Histiocyte, Mild
		Leukemia Mononuclear	
Note: INFILTRAT CELL TGLs = 4			
Note: LEUKEMIA MONUC TGLs = 4			
[ Infiltration Cellular TGLS = 4 ]			
Lymph Node	Iliac	Leukemia Mononuclear	
	Inguinal	Leukemia Mononuclear	
	Mandibular	Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 554
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

ORGAN AND ACCOUNTABLE SITE STATUS

	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 15		
Note: LEUKEMIA MONUC	TGLs = 7		
Note: LEUKEMIA MONUC	TGLs = 13		
Note: LEUKEMIA MONUC	TGLs = 2		
Note: LEUKEMIA MONUC	TGLs = 9		
Nose	Lumen	Fungus	Mild
	Lumen	Inflammation	Suppurative, Mild
Pancreas	Acinus	Atrophy	Mild
Note: MASSES SEEN GROSSLY-ENLARGED LN.			
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
Preputial Gland		Fibrosis	Marked
Prostate		Leukemia Mononuclear	
Spleen		Leukemia Mononuclear	
		Necrosis	Marked
Note: LEUKEMIA MONUC	TGLs = 3		
Note: NECROSIS	TGLs = 3		
Testes	Interstit Cell	Adenoma	
		Aspermatogenesis	Mild
		Atrophy	Marked
Note: ADENOMA	TGLs = 8		
Zymbal's Gland		Carcinoma	
Note: CARCINOMA	TGLs = 1		
PRIMARY CAUSE OF DEATH -			

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 634 <b>HISTO:</b>
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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	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Pituitary Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Mammary Gland	Parathyroid Gland	Thymus
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**OBSERVATIONS**

Epididymis		Atypia Cellular	
		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY	TGLs = 4		
Prostate		Inflammation	Suppurative, Moderate
Testes	Interstit Cell	Adenoma	
		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Marked
Note: DEGEN	TGLs = 3		
Note: ATROPHY	TGLs = 3		
Note: ASPERMATOGEN	TGLs = 3		

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 9

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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	Nose	Preputial Gland	Salivary Glands
Seminal Vesicle	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Heart		Fibrosis	Multifocal, Moderate
Kidney	Pelvis	Fibrosarcoma	Metastatic (Skin)
		Hydronephrosis	Marked
		Nephropathy	Chronic, Marked
Note: FIBROSARC TGLs = 12			
Note: NEPHROPATHY TGLs = 11			
Note: HYDRONEPHROSIS TGLs = 13			
Liver		Fibrosarcoma	Metastatic (Skin)
Note: FIBROSARC TGLs = 15			
Lung		Fibrosarcoma	Metastatic (Skin)
Note: FIBROSARC TGLs = 16			
Lymph Node	Mesenteric	Ectasia	Minimal
		Fibrosarcoma	Metastatic (Skin)
Note: FIBROSARC- MEDIASTINAL LN			
Note: FIBROSARC-AXILLARY LN TGL=6			
Note: FIBROSARC- MESENTERIC LN IS METASTATIC			
Note: FIBROSARC TGLs = 4,5			
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 9			
Pancreas	Acinus	Atrophy	Mild
Parathyroid Gland		Hyperplasia	Marked

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b>
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Angiectasis	Marked
Note: ADENOMA TGLs = 7 [ Angiectasis TGLS = 7 ]			
Prostate		Inflammation	Suppurative, Mild
Skin	Subcut Tiss	Fibrosarcoma Keratoacanthoma	Multiple
Note: FIBROSARC TGLs = 3,2 Note: KERATOACANTHMA TGLs = 1			
Testes	Interstit Cell	Adenoma Atrophy	Multiple Moderate
Note: ADENOMA TGLs = 10			

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

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
Liver	Lung	Lymph Node - Mesenteric	Mammary Gland
Nose	Parathyroid Gland	Prostate	Salivary Glands
Seminal Vesicle	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
Note: ADENOMA TGLs = 5 [ Angiectasis TGLS = 5 ]			
Preputial Gland		Fibrosis	Moderate
Skin		Alopecia	
Note: ALOPECIA TGLs = 1,2			
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Moderate
Note: ATROPHY TGLs = 3			
Note: ADENOMA TGLs = 4			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 10

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Ear	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	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Mammary Gland

OBSERVATIONS

Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Eye	Retina	Cataract Degeneration	Moderate Moderate
Note: DEGEN	TGLs = 1		
Note: CATARACT	TGLs = 1		
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Liver	Bile Duct	Hyperplasia	Mild
Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Angiectasis	Moderate
Note: ANGIECTASIS	TGLs = 4		
Note: ADENOMA	TGLs = 4		
Prostate		Inflammation	Suppurative, Mild
Testes	Interstit Cell	Adenoma Atrophy	Mild
Note: ATROPHY	TGLs = 3		
Note: ADENOMA	TGLs = 2		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:39

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

**Lab:** SRI

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**ANIMAL ID:** 10

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.25%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 10

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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
Nose	Pancreas	Parathyroid Gland	Salivary Glands
Seminal Vesicle	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Mild
	Medulla	Pheochromocytoma Benign	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Moderate
Note: CYST TGLs = 5			
Note: NEPHROPATHY TGLs = 6			
Liver		Cytologic Alterations	Focal, Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
Preputial Gland		Adenoma	
		Inflammation	Suppurative, Moderate
Note: ADENOMA TGLs = 2			
Note: INFLAMMATION TGLs = 2			
Prostate		Inflammation	Suppurative, Marked
Skin		Keratoacanthoma	
Note: TISSUE FRIABLE-DIFFICULT TO SECTION			
Note: KERATOACANTHMA TGLs = 1			
Testes	Interstitial Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:39

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

**Lab:** SRI

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**ANIMAL ID:** 10

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** 0.13%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Perivascular  
Arteriole

Infiltration Cellular  
Necrosis

Mononuclear CI, Mild  
Fibrinoid, Mild

Note: ATROPHY      TGLs = 3

Note: ADENOMA      TGLs = 4

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:39

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 11

TRT#: 1

SEX: Male

DAY ON TEST: 506

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

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	Mammary Gland	Nose	Prostate
Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

MISSING

Parathyroid Gland

OBSERVATIONS

Epididymis		Depletion Cellular Mesothelioma Malignant	Moderate
Note: MESOTHELIO MAL TGLs = 10			
Kidney	Renal Tubule	Nephropathy Pigmentation	Chronic, Mild Hemosiderin, Moderate
Liver		Basophilic Focus Mesothelioma Malignant	Mild
Lymph Node	Mediastinal	Pigmentation	Hemosiderin, Marked
Mesentery		Mesothelioma Malignant	
Note: MESOTHELIO MAL TGLs = 1			
Pancreas		Mesothelioma Malignant	
Pituitary Gland	Pars Distalis	Adenoma	
Preputial Gland		Inflammation	Suppurative, Moderate
Note: INFLAMMATION TGLs = 6			
Skeletal Muscle	Abdominal	Mesothelioma Malignant	
	Diaphragm	Mesothelioma Malignant	
Note: MESOTHELIO MAL TGLs = 2			
Note: MESOTHELIO MAL TGLs = 3			
Spleen		Hematopoietic Cell Proliferation Mesothelioma Malignant	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:39  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 11	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 506
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Stomach	Serosa	Mesothelioma Malignant	
Testes	Interstit Cell	Adenoma	
		Aspermatogenesis	Mild
		Atrophy	Marked
	Tunic	Mesothelioma Malignant	
Note: ADENOMA TGLs = 7,8			
Note: MESOTHELIO MAL TGLs = 9			
Urinary Bladder		Mesothelioma Malignant	

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 11

TRT#: 3

DOSE: 0.25%

SEX: Male

DISP: Moribund

DAY ON TEST: 719

HISTO:

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	Lymph Node - Mandibular
Nose	Parathyroid Gland	Preputial Gland	Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea			

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Medulla Cortex	Pheochromocytoma Benign Vacuolization Cytoplasmic	Focal, Mild
Blood		Leukemia Mononuclear Polychromasia	
Eye	Retina	Cataract Degeneration	Moderate Moderate
Note: CATARACT TGLs = 2 [ Degeneration TGLS = 2 ]			
Harderian Gland		Atrophy Fibrosis	Moderate Moderate
Heart		Leukemia Mononuclear	
Islets, Pancreatic		Adenoma	
Kidney	Renal Tubule	Carcinoma Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 6 Note: CARCINOMA TGLs = 5			
Liver	Bile Duct	Degeneration Hyperplasia Leukemia Mononuclear	Cystic, Focal, Moderate Moderate
Note: LEUKEMIA MONUC TGLs = 8			
Lung		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 11

TRT#: 3

SEX: Male

DAY ON TEST: 719

DOSE: 0.25%

DISP: Moribund

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: LEUKEMIA MONUC	TGLs = 9			
Lymph Node		Mesenteric	Leukemia Mononuclear	
Mammary Gland			Fibroadenoma	
Note: FIBROADENOMA	TGLs = 1			
Pancreas		Acinus	Atrophy	Moderate
			Leukemia Mononuclear	
Pituitary Gland			Leukemia Mononuclear	
Prostate			Inflammation	Suppurative, Moderate
Seminal Vesicle			Atrophy	Mild
Spleen			Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4			
Testes		Interstit Cell	Adenoma	
			Atrophy	Moderate
Note: ATROPHY	TGLs = 3			
Urinary Bladder			Leukemia Mononuclear	
PRIMARY CAUSE OF DEATH		-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 11

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Ear  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Spleen  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
Lung  
Parathyroid Gland  
Stomach - Forestomach  
Urinary Bladder

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Salivary Glands  
Stomach - Glandular

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Skin  
Thymus

OBSERVATIONS

Adrenal Gland  
Epididymis  
Heart  
Kidney  
    Note: NEPHROPATHY    TGLs = 4  
Liver  
Mammary Gland  
Pancreas  
Pituitary Gland  
  
Preputial Gland  
Prostate  
Seminal Vesicle  
Testes

Medulla  
  
  
  
  
Duct  
Acinus  
Pars Distalis  
Pars Distalis  
Duct  
  
  
  
Interstit Cell

Pheochromocytoma Benign  
Depletion Cellular  
Fibrosis  
Nephropathy  
  
Cytologic Alterations  
Cyst  
Atrophy  
Adenoma  
Angiectasis  
Cyst  
Inflammation  
Atrophy  
Adenoma  
Aspermatogenesis  
Atrophy

Marked  
Multifocal, Marked  
Chronic, Moderate  
  
Focal, Moderate  
  
Mild  
  
Moderate  
  
Suppurative, Mild  
Moderate  
Multiple  
Mild  
Marked

    Note: ATROPHY        TGLs = 2  
    Note: ADENOMA      TGLs = 3  
Thyroid Gland

C Cell  
Follicular Cel

Adenoma  
Adenoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 12

TRT#: 1

SEX: Male

DAY ON TEST: 591

DOSE: UNTREATD CONTROL

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Brain	Ear
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
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Bone Marrow		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
		Necrosis	Coagulative, Multifocal, Moderate
Note: NECROSIS TGLs = 1			
Note: LEUKEMIA MONUC TGLs = 1			
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3			
Preputial Gland		Inflammation	Suppurative, Moderate
Spleen		Leukemia Mononuclear	
Testes	Interstit Cell	Adenoma	
		Atrophy	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 12

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	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	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	Urinary Bladder	

MISSING

Thymus

OBSERVATIONS

Blood		Leukemia Mononuclear	
Ear			
Note: EXT&MIDDLE EAR-NORMAL			
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
Note: DEGEN TGLs = 1			
Note: CATARACT TGLs = 1			
Harderian Gland		Fibrosis	Moderate
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 5			
Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
	Mesenteric	Hyperplasia	Lymphoid, Moderate
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 12	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Testes	Interstit Cell	Adenoma Atrophy	Moderate
Note: ATROPHY	TGLs = 3		
Note: ADENOMA	TGLs = 4		
Thyroid Gland	C Cell	Adenoma	
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 12

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Mammary Gland  
Prostate  
Spleen  
Thyroid Gland

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Lung  
Nose  
Salivary Glands  
Stomach - Forestomach  
Trachea

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Seminal Vesicle  
Stomach - Glandular  
Urinary Bladder

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Skin  
Thymus

OBSERVATIONS

Epididymis  
Heart  
Kidney  
    Note: NEPHROPATHY   TGLs = 4  
Liver  
    Note: NEOPLASTIC NOD   TGLs = 1  
Pituitary Gland  
Preputial Gland  
Testes  
    Note: ADENOMA        TGLs = 3

Bile Duct  
  
Pars Distalis  
  
Interstit Cell

Depletion Cellular  
Fibrosis  
Nephropathy  
  
Hyperplasia  
Neoplastic Nodule  
  
Cyst  
Inflammation  
Adenoma  
Aspermatogenesis  
Atrophy

Marked  
Multifocal, Moderate  
Chronic, Moderate  
  
Mild  
  
Suppurative, Mild  
Multiple  
Mild  
Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 13

TRT#: 1

SEX: Male

DAY ON TEST: 645

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	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	Seminal Vesicle	Stomach - Glandular	Trachea
Urinary Bladder			

MISSING

Blood	Salivary Glands	Thymus	
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OBSERVATIONS

Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
	Cortex	Necrosis	Multifocal, Marked
Bone Marrow		Leukemia Mononuclear	
Brain	Cerebellum	Hemorrhage	Focal, Moderate
Epididymis		Depletion Cellular	Marked
Harderian Gland		Fibrosis	Marked
		Leukemia Mononuclear	
Heart		Fibrosis	Multifocal, Mild
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Diffuse, Marked
Note: LEUKEMIA MONUC	TGLs = 4		
Lung		Leukemia Mononuclear	
Lymph Node	Inguinal	Leukemia Mononuclear	
	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 1		
Note: LEUKEMIA MONUC	TGLs = 7		
Note: LEUKEMIA MONUC	TGLs = 5		

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 13	TRT#: 1 DOSE: UNTREATD CONTROL	SEX: Male DISP: Moribund	DAY ON TEST: 645 HISTO:
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Angiectasis Leukemia Mononuclear	Marked
Note: ADENOMA TGLs = 8 [ Adenoma TGLS = 8 ]			
Preputial Gland	Duct	Cyst Fibrosis	Moderate
Prostate		Inflammation Leukemia Mononuclear	Suppurative, Moderate
Skin	Subcut Tiss	Leukemia Mononuclear	
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3			
Stomach	Forestomach Forestomach	Edema Ulcer	Marked Focal, Moderate
Testes	Interstit Cell	Adenoma Aspermatogenesis Atrophy	Multiple Mild Moderate
Note: ADENOMA TGLs = 2			
Thyroid Gland	C Cell	Hyperplasia	Focal, Mild
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 13

TRT#: 3

SEX: Male

DAY ON TEST: 619

DOSE: 0.25%

DISP: Moribund

HISTO:

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	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Seminal Vesicle	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Mammary Gland	Thymus
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OBSERVATIONS

Epididymis		Depletion Cellular	Marked
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 8 ]			
Liver		Necrosis	Coagulative, Multifocal, Moderate
[ Necrosis TGLS = 7 ]			
Lymph Node	Mandibular	Angiectasis	Moderate
	Mesenteric	Angiectasis	Marked
Note: ANGIECTASIS TGLs = 3			
Note: ANGIECTASIS TGLs = 1			
Preputial Gland		Fibrosis	Moderate
Prostate		Inflammation	Suppurative, Mild
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Marked
	Tunic	Sarcoma	
Note: SLIDE IV TUNIC-NORMAL			
Note: ATROPHY TGLs = 5			
[ Aspermatogenesis TGLS = 2 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 13

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	Esophagus	Intestine Large - Cecum	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	Salivary Glands
Seminal Vesicle	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	Multiple
Ear			
Note: EXTERNAL & MIDDLE EAR- NORMAL			
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Colon	Parasite Metazoan	
Kidney	Pelvis, Transit Epithe	Hyperplasia	Mild
		Mineralization	Mild
		Nephropathy	Chronic, Moderate
Note: HYPERPLASIA TGLs = 4			
Note: MINERALIZATION TGLs = 4			
Note: NEPHROPATHY TGLs = 4			
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 2			
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[ Adenoma TGLS = 6 ]			
[ Angiectasis TGLS = 6 ]			
Prostate		Inflammation	Suppurative, Marked
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 13	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Testes	Interstitial Cell	Adenoma Aspermatogenesis	Multiple Mild
Note: ADENOMA TGLs = 3			
Thyroid Gland	C Cell C Cell Follicle	Adenoma Carcinoma Cyst	
Note: CARCINOMA TGLs = 5 [ Carcinoma TGLS = 5 ]			

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 14

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	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	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	Multiple
Ear			
Note: EXT&MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Mild
Kidney	Cortex	Cyst	
		Nephropathy	Chronic, Moderate
Preputial Gland		Adenoma	
	Duct	Cyst	
Prostate		Inflammation	Suppurative, Minimal
Testes	Interstitial Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked

Note: ADENOMA TGLs = 1

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 14

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	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	Mammary Gland	Nose	Parathyroid Gland
Pituitary Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder		

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Fibrosis	Marked
Note: ADRENAL GL-FIBROUS TISSUE (MASS II)			
Note: FIBROSIS TGLs = 2			
Note: LEFT ADRENAL- REPLACED BY SCAR TISSUE			
Note: 1991 CONVERSION DISCREPANCY. DIAGNOSIS SITE NOT SPECIFIED.			
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Epididymis		Atypia Cellular	
		Depletion Cellular	Marked
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
Note: DEGEN TGLs = 12			
Note: CATARACT TGLs = 12			
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 8			
Liver	Serosa	Fibrosis	Focal, Moderate
Note: SLIDE II;LIVER-MESENTERIC ADHESION			
Note: FIBROSIS TGLs = 9			
Lung	Alveolar Epith	Hyperplasia	Focal, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 14	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: HYPERPLASIA TGLs = 10,11 Mesentery		Fibrosis Pigmentation	Focal, Marked Hematoidin, Hemosiderin, Moderate
Note: ADRENAL NOT FOUND IN LESION Note: PIGMENT TGLs = 2 Note: MESENTERY ADHERED TO LIVER Note: FIBROSIS TGLs = 2 Pancreas	Acinus	Atrophy Pigmentation	Marked Hematoidin, Hemosiderin, Moderate
Note: PIGMENT TGLs = 6 Prostate		Inflammation	Suppurative, Moderate
Note: INFLAMMATION TGLs = 5 Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1 Testes	Interstit Cell	Adenoma Atrophy	Marked
Note: ATROPHY TGLs = 4			
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 14

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Mammary Gland  
Pituitary Gland  
Skin  
Thymus

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Lung  
Nose  
Preputial Gland  
Spleen  
Thyroid Gland

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Salivary Glands  
Stomach - Forestomach  
Trachea

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Seminal Vesicle  
Stomach - Glandular  
Urinary Bladder

OBSERVATIONS

Epididymis  
Heart  
Kidney  
    Note: NEPHROPATHY    TGLs = 3  
Liver  
  
Prostate  
Testes  
  
    Note: ADENOMA        TGLs = 1

Interstitial Cell

Depletion Cellular  
Fibrosis  
Nephropathy  
  
Cytologic Alterations  
Inflammation  
Fibrosis  
Adenoma  
Aspermatogenesis  
Atrophy

Marked  
Multifocal, Moderate  
Chronic, Moderate  
  
Focal, Mild  
Granulomatous, Multifocal, Mild  
Moderate  
Multiple  
Mild  
Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 15

TRT#: 1

SEX: Male

DAY ON TEST: 533

DOSE: UNTREATD CONTROL

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Intestine Large	Cecum	Parasite Metazoan	
Kidney		Nephropathy	Chronic, Mild
Lung	Mediastinum, Pleura	Alveolar/Bronchiolar Carcinoma	Metastatic (Uncertain Primary Site)
Note: ALV BRON CARC TGLs = 7			
Note: ALV BRON CARC TGLs = 2			
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
Preputial Gland		Adenoma	
		Inflammation	Suppurative, Moderate
Note: INFLAMMATION TGLs = 3			
Note: ADENOMA TGLs = 3			
Prostate		Inflammation	Suppurative, Moderate
Spleen		Sarcoma	
Note: SARCOMA TGLs = 1			
Testes	Interstit Cell	Adenoma	
Note: ADENOMA TGLs = 5			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 15

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Esophagus	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	Pancreas	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach - Forestomach	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Epididymis		Atypia Cellular	
		Depletion Cellular	Marked
Eye	Retina	Cataract	Moderate
		Degeneration	Moderate
Note: DEGEN TGLs = 5			
Note: CATARACT TGLs = 5			
Heart		Fibrosis	Multifocal, Mild
Intestine Large	Cecum	Parasite Metazoan	
Kidney	Renal Tubule	Adenoma	
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 3			
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[ Adenoma TGLS = 4 ]			
[ Angiectasis TGLS = 4 ]			
Stomach	Glandular	Mineralization	Mild
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 15

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.25%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Perivascular  
Arteriole

Infiltration Cellular  
Necrosis

Mononuclear CI, Moderate  
Fibrinoid, Moderate

Note: ATROPHY      TGLs = 2

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 15

TRT#: 5

SEX: Male

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Epididymis		Depletion Cellular	Marked
		Fibrosis	Moderate
		Inflammation	Granulomatous, Moderate
Note: FIBROSIS TGLs = 3,4			
Note: INFLAMMATION TGLs = 3,4			
Note: EPIDIDYMIS- ON SLIDE 7 & 7B			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 5			
Prostate		Inflammation	Suppurative, Moderate
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
Note: ADENOMA TGLs = 2			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 16

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	Urinary Bladder		

MISSING

Thymus

OBSERVATIONS

Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 5			
Note: POOR QUALITY SECTION-PROCESSING PROBLEM.			
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Moderate
Prostate		Inflammation	Chronic, Focal, Mild
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Moderate
		Hemorrhage	Moderate
Note: ADENOMA TGLs = 2			
Note: ATROPHY TGLs = 3			
Note: HEMORRHAGE TGLs = 4			
Thyroid Gland	C Cell	Adenoma	
Note: ADENOMA TGLs = 6			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 16

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	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	Mammary Gland	Nose
Parathyroid Gland	Preputial Gland	Salivary Glands	Skin
Stomach - Forestomach	Trachea	Urinary Bladder	

MISSING

Thymus

OBSERVATIONS

Ear			
Note: EXT&MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
Note: DEGEN TGLs = 6			
Note: CATARACT TGLs = 6			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Moderate
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[ Adenoma TGLS = 5 ]			
[ Angiectasis TGLS = 5 ]			
Prostate		Inflammation	Suppurative, Minimal
Seminal Vesicle		Atrophy	Moderate
Spleen		Congestion	Mild
Note: CONGESTION TGLs = 3			
Stomach	Glandular	Mineralization	Minimal
Testes	Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 16	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA	TGLs = 2	Aspermatogenesis	Moderate
Note: ATROPHY	TGLs = 1	Atrophy	Marked
Thyroid Gland	C Cell	Adenoma	

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 16

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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	Mammary Gland
Nose	Pancreas	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Trachea
Urinary Bladder			

OBSERVATIONS

Epididymis		Depletion Cellular	Marked
Harderian Gland		Fibrosis	Moderate
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY	TGLs = 5		
Liver		Cytologic Alterations	Multifocal, Mild
Lung		Infiltration Cellular	Histiocyte, Mild
Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Focal, Mild
Spleen		Fibrosis	Focal, Moderate
Note: FIBROSIS	TGLs = 4		
Testes	Interstitial Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Mild
Note: ADENOMA	TGLs = 3		
Note: ATROPHY	TGLs = 2		
Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 17

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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
Liver	Lung	Lymph Node - Mesenteric	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Seminal Vesicle	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	Urinary Bladder

MISSING

Lymph Node - Mandibular	Preputial Gland
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OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	Multiple
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Mammary Gland		Fibroadenoma	
Note: FIBBROADENOMA-SLIDE 7B [ Fibroadenoma TGLS = 1 ]			
Prostate		Inflammation	Suppurative, Mild
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Moderate
	Perivascular	Infiltration Cellular	Mononuclear CI, Mild
Note: ADENOMA TGLs = 3			
Note: ATROPHY TGLs = 2			
Thyroid Gland	Follicle	Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 17

TRT#: 3

SEX: Male

DAY ON TEST: 493

DOSE: 0.25%

DISP: Dead

HISTO:

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 - Jejunum	Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

MISSING

Intestine Small - Ileum

OBSERVATIONS

Bone	Femur	Osteosarcoma	
Note: OSTEOSARC	TGLs = 1		
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Minimal
		Osteosarcoma	Metastatic (Bone)
Liver	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Focal, Mild
Lung		Osteosarcoma	Metastatic (Bone)
Note: OSTEOSARC	TGLs = 2		
Prostate		Inflammation	Suppurative, Marked
Testes		Aspermatogenesis	Moderate
		Atrophy	Mild
		Degeneration	Moderate
Note: ATROPHY	TGLs = 3		
Urinary Bladder	Mucosa	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 17

TRT#: 5

SEX: Male

DAY ON TEST: 602

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Epididymis  
Intestine Large - Rectum  
Islets, Pancreatic  
Parathyroid Gland  
Salivary Glands  
Stomach - Glandular  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Lymph Node - Mesenteric  
Pituitary Gland  
Seminal Vesicle  
Thymus

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Mammary Gland  
Preputial Gland  
Skin  
Thyroid Gland

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Nose  
Prostate  
Stomach - Forestomach  
Trachea

MISSING

Blood

OBSERVATIONS

Bone Marrow  
Heart  
Kidney  
    Note: NEPHROPATHY   TGLs = 4  
Liver  
  
Lung  
Lymph Node  
Pancreas  
Spleen  
    Note: LEUKEMIA MONUC   TGLs = 5  
Testes  
  
    Note: ADENOMA        TGLs = 3

Bile Duct  
  
  
Mandibular  
Acinus  
  
Interstit Cell

Leukemia Mononuclear  
Fibrosis  
Nephropathy  
  
Hyperplasia  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Atrophy  
Leukemia Mononuclear  
  
Adenoma  
Atrophy

Multifocal, Moderate  
Chronic, Marked  
  
Moderate  
  
  
Mild  
  
Multiple  
Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 18

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Ear	Esophagus
Eye	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	Preputial Gland
Prostate	Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Mammary Gland	Salivary Glands	Thymus
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OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Kidney		Nephropathy	Chronic, Mild
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7			
Lung		Leukemia Mononuclear	
Lymph Node	Inguinal	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 8			
Note: LEUKEMIA MONUC TGLs = 2			
Note: LEUKEMIA MONUC TGLs = 8			
Skin		Alopecia	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 18	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ALOPECIA	TGLs = 1		
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5,6		
Testes		Adenoma	Multiple
		Atrophy	Marked
Note: ATROPHY	TGLs = 3		
Note: ADENOMA	TGLs = 4		

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**PRIMARY CAUSE OF DEATH** -

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Animal Note: POOR SECTIONS-PROCESSING PROBLEM

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 18

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Ear
Esophagus	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lymph Node - Mesenteric	Mammary Gland	Nose	Pancreas
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Lymph Node - Mandibular

OBSERVATIONS

Adrenal Gland	Medulla Cortex	Pheochromocytoma Benign Vacuolization Cytoplasmic	Focal, Mild
Ear Note: EXT&MIDDLE EAR-NORMAL			
Epididymis		Atypia Cellular Depletion Cellular	Marked
Eye Note: DEGEN TGLs = 10 Note: CATARACT TGLs = 10	Retina	Cataract Degeneration	Moderate Moderate
Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Cecum, Submucosa	Edema	Moderate
Kidney Note: NEPHROPATHY TGLs = 6		Nephropathy	Chronic, Marked
Lung Note: INFILTRAT CELL TGLs = 9	Interstitialium	Infiltration Cellular	Mononuclear CI, Mild
Lymph Node Note: ANGIOECTASIS TGLs = 1	Renal	Angiectasis	Moderate
Parathyroid Gland		Hyperplasia	Marked
Pituitary Gland	Pars Distalis	Cyst	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 18

**TRT#:** 3  
**DOSE:** 0.25%

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

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

**ORGAN AND ACCOUNTABLE SITE STATUS**

Spleen Note: CONGESTION TGLs = 5		Congestion	Moderate
Testes Note: ATROPHY TGLs = 4	Perivascular Arteriole	Aspermatogenesis Atrophy Degeneration Infiltration Cellular Necrosis	Marked Marked Moderate Mononuclear CI, Moderate Fibrinoid, Moderate
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 18

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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
Liver	Lung	Lymph Node - Mandibular	Mammary Gland
Nose	Parathyroid Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Spleen	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Lymph Node - Mesenteric	Thymus
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OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 3			
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 2			
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Carcinoma	
	Pars Nervosa	Infiltration Cellular	Mild
Note: POSS. GLIOSIS OF PARS NERVOSA [ Carcinoma TGLS = 4 ]			
Prostate		Inflammation	Suppurative, Mild
Skin		Squamous Cell Papilloma	
Note: PAPILLOMA SQUA TGLs = 1			
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
Note: ADENOMA TGLs = 6			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 18

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 0.13%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 19

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lymph Node - Mesenteric	Mammary Gland	Nose
Pancreas	Parathyroid Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Spleen	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Lymph Node - Mandibular

INSUFFICIENT TISSUE

Stomach - Forestomach                      Stomach - Glandular

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Ear			
Note: EXT&MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Marked
Liver		Cytologic Alterations	Multifocal, Moderate
Lung		Congestion	Moderate
Note: CONGESTION      TGLs = 2			
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
[ Angiectasis TGLS = 4 ]			
Prostate		Inflammation	Suppurative, Moderate
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
		Mineralization	Moderate
Note: ADENOMA      TGLs = 1			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 19

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** UNTREATD CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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Animal Note: POOR SLIDE QUALITY-PROCESSING PROBLEM

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 19

TRT#: 3

SEX: Male

DAY ON TEST: 646

DOSE: 0.25%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Ear	Esophagus	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Liver	Lung
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Salivary Glands	Seminal Vesicle	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Ear			
Note: EXT&MIDDLE EAR-NORMAL			
Epididymis		Atypia Cellular	
		Depletion Cellular	Marked
Eye		Cataract	Mild
	Retina	Degeneration	Moderate
Note: CATARACT TGLs = 4			
Note: DEGEN TGLs = 4			
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 6			
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
	Mesenteric	Hyperplasia	Lymphoid, Mild
	Renal	Hyperplasia	Lymphoid, Moderate
Note: HYPERPLASIA TGLs = 2			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[ Adenoma TGLS = 11 ]			
Preputial Gland	Duct	Cyst	
Note: CYST TGLs = 1			
Prostate		Inflammation	Suppurative, Moderate
Skin	Subcut Tiss	Hemangioma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 19	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 646 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: HEMANGIOMA Testes	TGLs = 1		Aspermatogenesis Atrophy Degeneration Infiltration Cellular Necrosis	Moderate Marked Moderate Mononuclear CI, Mild Fibrinoid, Mild
Note: ATROPHY Thyroid Gland	TGLs = 5	Perivascular Arteriole  C Cell	Hyperplasia	Focal, Mild

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 19

TRT#: 5

DOSE: 0.13%

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO:

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
Parathyroid Gland	Pituitary Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Hemorrhage	Marked
	Medulla	Mineralization	Moderate
	Medulla	Pheochromocytoma Benign	
Note: PHEOCHROM BGN	TGLs = 1		
Note: MINERALIZATION	TGLs = 1		
Note: HEMORRHAGE	TGLs = 1		
Blood		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY	TGLs = 2		
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3		
Mammary Gland	Duct	Cyst	
Note: CYST	TGLs = 7		
Pancreas	Acinus	Atrophy	Moderate
Prostate		Inflammation	Suppurative, Minimal
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 10		
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 19

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 0.13%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ATROPHY      TGLs = 9

Note: ADENOMA      TGLs = 8

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 20

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	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	Parathyroid Gland
Pituitary Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Mineralization	Moderate
	Medulla	Pheochromocytoma Benign	
Blood		Leukemia Mononuclear	
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Necrosis	Coagulative, Multifocal, Moderate
Note: LEUKEMIA MONUC TGLs = 4			
Note: NECROSIS TGLs = 4			
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5			
Lymph Node	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Adenoma	
Pancreas	Acinus	Atrophy	Mild
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3			
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 20

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** UNTREATD CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Atrophy

Moderate

Note: ATROPHY      TGLs = 1

Note: ADENOMA      TGLs = 2

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 20

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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	Nose	Pancreas
Pituitary Gland	Prostate	Seminal Vesicle	Stomach - Forestomach
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	Multiple
	Cortex	Vacuolization Cytoplasmic	Multifocal, Moderate
Bone		Fibrous Osteodystrophy	Marked
Epididymis		Atypia Cellular	
		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 7			
Liver	Bile Duct	Hyperplasia	Moderate
Mesentery	Artery	Mineralization	Moderate
	Artery	Thrombosis	
Note: THROMBUS TGLs = 4			
[ Thrombosis TGLs = 4 ]			
Parathyroid Gland		Hyperplasia	Marked
Preputial Gland		Fibrosis	Moderate
Salivary Glands		Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 9			
Skin		Fibrosis	Focal, Moderate
		Hyperkeratosis	Focal, Moderate
		Hyperplasia	Focal, Moderate
		Keratoacanthoma	
Note: HYPERPLASIA TGLs = 1			
Note: FIBROSIS TGLs = 1			

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 20

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: HYPERKERATOSIS TGLs = 1

[ Keratoacanthoma TGLS = 2 ]

Spleen

Fibrosis

Focal, Marked

Pigmentation

Hemosiderin, Moderate

[ Fibrosis TGLS = 3 ]

Stomach

Glandular

Mineralization

Moderate

Testes

Interstit Cell

Adenoma

Aspermatogenesis

Marked

Atrophy

Marked

Degeneration

Marked

Perivascular

Infiltration Cellular

Mononuclear CI, Moderate

Arteriole

Necrosis

Fibrinoid, Mild

Note: ATROPHY TGLs = 6

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 20

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Ear  
Intestine Large - Rectum  
Islets, Pancreatic  
Pancreas  
Seminal Vesicle  
Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Mammary Gland  
Preputial Gland  
Stomach - Glandular

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Nose  
Salivary Glands  
Trachea

MISSING

Thymus

OBSERVATIONS

Adrenal Gland  
Blood  
Ear  
Note: EXTERNAL & MIDDLE EAR NORMAL

Medulla

Pheochromocytoma Benign  
Leukemia Mononuclear

Epididymis  
Heart  
Kidney  
Note: NEPHROPATHY TGLs = 5

Depletion Cellular  
Fibrosis  
Nephropathy

Moderate  
Multifocal, Moderate  
Chronic, Marked

Liver  
Note: LEUKEMIA MONUC TGLs = 6

Bile Duct

Angiectasis  
Hyperplasia  
Leukemia Mononuclear

Moderate  
Mild

Lung  
Lymph Node  
Pituitary Gland  
Prostate

Mandibular  
Pars Distalis

Leukemia Mononuclear  
Leukemia Mononuclear  
Hyperplasia  
Cyst  
Inflammation

Focal, Mild  
Chronic, Minimal

Note: PROSTATE- CYSTIC DUCT  
Skin  
Spleen

Subcut Tiss

Fibroma  
Leukemia Mononuclear

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 20	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 734 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LEUKEMIA MONUC TGLs = 4 Testes	Interstit Cell	Adenoma Aspermatogenesis Atrophy	Multiple Mild Marked
Note: ADENOMA TGLs = 3 Note: ATROPHY TGLs = 2 Thyroid Gland	C Cell	Hyperplasia	Focal, Mild
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

**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

Liver

Lung

Lymph Node - Mandibular

Lymph Node - Mesenteric

Mammary Gland

Nose

Pancreas

Parathyroid Gland

Pituitary Gland

Salivary Glands

Seminal Vesicle

Spleen

Stomach - Forestomach

Stomach - Glandular

Thymus

Thyroid Gland

Trachea

Urinary Bladder

**MISSING**

Preputial Gland

**OBSERVATIONS**

Adrenal Gland

Medulla

Pheochromocytoma Benign

Epididymis

Depletion Cellular

Marked

Heart

Fibrosis

Multifocal, Moderate

Kidney

Nephropathy

Chronic, Moderate

Prostate

Inflammation

Suppurative, Minimal

Skin

Keratoacanthoma

Note: KERATOACANTHMA TGLs = 1

Testes

Interstit Cell

Adenoma

Multiple

Note: ADENOMA TGLs = 2

Aspermatogenesis

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 21

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Ear	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
Mammary Gland	Nose	Pancreas	Preputial Gland
Salivary Glands	Seminal Vesicle	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Ear			
Note: EXT & MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
Note: DEGEN TGLs = 2			
Note: CATARACT TGLs = 2			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 5			
Lung		Congestion	Mild
Note: CONGESTION TGLs = 1			
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Cyst	Multiple
Prostate		Inflammation	Suppurative, Moderate
Skin		Hyperkeratosis	Focal, Moderate
		Inflammation	Chronic, Moderate
Note: HYPERKERATOSIS ON FOOT			
Note: HYPERKERATOSIS TGLs = 6			
Note: INFLAMMATION TGLs = 6			
Testes		Aspermatogenesis	Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 21	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
		Atrophy	Marked
		Degeneration	Marked
	Perivascular	Infiltration Cellular	Mononuclear CI, Moderate
	Arteriole	Necrosis	Fibrinoid, Moderate
Note: ATROPHY      TGLs = 4			
Thyroid Gland	C Cell	Carcinoma	
<b>PRIMARY CAUSE OF DEATH</b>	-		

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 21

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Mammary Gland  
Pituitary Gland  
Spleen  
Thyroid Gland

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Lung  
Nose  
Salivary Glands  
Stomach - Forestomach  
Trachea

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Seminal Vesicle  
Stomach - Glandular  
Urinary Bladder

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Skin  
Thymus

OBSERVATIONS

Epididymis  
Heart  
Kidney  
    Note: NEPHROPATHY    TGLs = 3  
Liver  
Preputial Gland  
  
    Note: CYST            TGLs = 2  
Prostate  
Testes  
  
    Note: ADENOMA        TGLs = 4

Bile Duct  
Duct  
  
Interstit Cell

Depletion Cellular  
Fibrosis  
Nephropathy  
  
Hyperplasia  
Cyst  
Inflammation  
  
Inflammation  
Adenoma  
Aspermatogenesis  
Atrophy

Marked  
Multifocal, Moderate  
Chronic, Moderate  
  
Mild  
  
Suppurative, Marked  
  
Suppurative, Moderate  
Multiple  
Mild  
Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 22

TRT#: 1

SEX: Male

DAY ON TEST: 591

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Ear  
Intestine Large - Colon  
Intestine Small - Jejunum  
Parathyroid Gland  
Stomach - Forestomach  
Urinary Bladder

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Rectum  
Islets, Pancreatic  
Salivary Glands  
Stomach - Glandular

Bone  
Esophagus  
Intestine Small - Duodenum  
Mammary Gland  
Seminal Vesicle  
Thyroid Gland

Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Nose  
Skin  
Trachea

MISSING

Thymus

OBSERVATIONS

Blood  
Bone Marrow  
Heart  
Kidney

Leukemia Mononuclear  
Leukemia Mononuclear  
Fibrosis  
Leukemia Mononuclear  
Nephropathy  
Leukemia Mononuclear

Multifocal, Mild

Chronic, Moderate

Liver  
Note: LEUKEMIA MONUC TGLs = 5

Lung  
Lymph Node

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear

Bronchial  
Inguinal  
Mandibular  
Mediastinal  
Mesenteric

Note: LEUKEMIA MONUC TGLs = 6  
Note: LEUKEMIA MONUC TGLs = 7  
Note: LEUKEMIA MONUC TGLs = 3

Pancreas  
Pituitary Gland  
Preputial Gland  
Prostate

Pars Distalis

Leukemia Mononuclear  
Adenoma  
Atrophy  
Inflammation

Moderate  
Suppurative, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 22	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 591
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4	Leukemia Mononuclear	
Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Moderate

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 22

TRT#: 3

SEX: Male

DAY ON TEST: 697

DOSE: 0.25%

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Lymph Node - Mandibular  
Parathyroid Gland  
Salivary Glands  
Stomach - Glandular  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Mammary Gland  
Pituitary Gland  
Seminal Vesicle  
Thymus

Bone  
Intestine Small - Duodenum  
Nose  
Preputial Gland  
Skin  
Thyroid Gland

Bone Marrow  
Islets, Pancreatic  
Pancreas  
Prostate  
Stomach - Forestomach  
Trachea

MISSING

Lymph Node - Mesenteric

AUTO PRECLUDES DIAG.

Intestine Large - Cecum  
Intestine Small - Jejunum

Intestine Large - Colon

Intestine Large - Rectum

Intestine Small - Ileum

OBSERVATIONS

Epididymis  
Harderian Gland  
Heart  
Kidney  
Liver  
Lung  
Spleen  
Testes

Depletion Cellular  
Fibrosis  
Fibrosis  
Nephropathy  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Aspermatogenesis  
Atrophy  
Degeneration  
Infiltration Cellular

Marked  
Moderate  
Multifocal, Moderate  
Chronic, Moderate  
  
Moderate  
Marked  
Moderate  
Mononuclear CI, Moderate

Perivascular

Note: ATROPHY TGLs = 1

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 22

TRT#: 5

SEX: Male

DAY ON TEST: 708

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	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	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Adrenal Gland Note: PHEOCHROM BGN TGLs = 3	Medulla	Pheochromocytoma Benign	
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Brain Note: HEMORRHAGE TGLs = 7	Cerebellum	Hemorrhage	Focal, Marked
		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Mild
Kidney Note: NEPHROPATHY TGLs = 4		Nephropathy	Chronic, Moderate
Liver Note: LEUKEMIA MONUC TGLs = 5		Leukemia Mononuclear	
Lung Note: LEUKEMIA MONUC TGLs = 6		Leukemia Mononuclear	
Lymph Node Note: LEUKEMIA MONUC TGLs = 1	Inguinal	Leukemia Mononuclear	
	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 22	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 708 <b>HISTO:</b>
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Preputial Gland	Duct	Cyst Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 10 Note: CYST TGLs = 10			
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 12			
Testes	Interstit Cell	Adenoma Aspermatogenesis Atrophy	Multiple Mild Marked
Note: ADENOMA TGLs = 11			

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	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
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Eye		Cataract	Mild
	Retina	Degeneration	Moderate
Note: DEGEN TGLs = 3			
Note: CATARACT TGLs = 3			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 5			
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1			
Pancreas	Acinus	Adenoma	
Note: ADENOMA TGLs = 2			
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
Prostate		Inflammation	Suppurative, Moderate
Testes	Interstitial Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
Note: ADENOMA TGLs = 4			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 23

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** UNTREATD CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 23

TRT#: 3

SEX: Male

DAY ON TEST: 639

DOSE: 0.25%

DISP: Moribund

HISTO:

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 - Mesenteric	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Epididymis		Depletion Cellular	Marked
Harderian Gland		Fibrosis	Moderate
Heart		Fibrosis	Multifocal, Moderate
Kidney		Mineralization	Marked
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 3			
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5			
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Hemorrhage	Marked
	Pars Distalis	Necrosis	Marked
Note: HEMORRHAGE TGLs = 6			
Note: NECROSIS TGLs = 6			
Preputial Gland		Fibrosis	Moderate
Prostate		Inflammation	Suppurative, Moderate
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4			
Stomach	Glandular	Mineralization	Moderate
Testes	Interstit Cell	Adenoma	
		Aspermatogenesis	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 23	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 639 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
		Atrophy Degeneration Mesothelioma Benign	Marked Moderate
Note: ATROPHY Thyroid Gland	TGLs = 2	Tunic C Cell	
<b>PRIMARY CAUSE OF DEATH</b>	-	Adenoma	

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 23

TRT#: 5

SEX: Male

DAY ON TEST: 489

DOSE: 0.13%

DISP: Moribund

HISTO:

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

Lymph Node - Mandibular

Lymph Node - Mesenteric

Nose

Pancreas

Salivary Glands

Seminal Vesicle

Skin

Spleen

Stomach - Forestomach

Thymus

Thyroid Gland

Trachea

OBSERVATIONS

Bone

Fibrous Osteodystrophy

Moderate

Coagulating Gland

Hyperplasia

Moderate

Inflammation

Suppurative, Moderate

Note: HYPERPLASIA OF EPITHELIUM

Epididymis

Depletion Cellular

Marked

Harderian Gland

Ectasia

Mild

Heart

Fibrosis

Multifocal, Mild

Kidney

Pelvis, Transit Epithe

Hyperplasia

Moderate

Inflammation

Suppurative, Mild

Inflammation

Chronic, Moderate

Nephropathy

Chronic, Marked

Note: INFLAMMATION TGLs = 2

Note: INFLAMMATION TGLs = 4

Note: NEPHROPATHY TGLs = 2

Liver

Portal

Fibrosis

Mild

Bile Duct

Hyperplasia

Mild

Lung

Infiltration Cellular

Histiocyte, Minimal

Mammary Gland

Duct

Cyst

Parathyroid Gland

Hyperplasia

Moderate

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 3 ]

Preputial Gland

Inflammation

Suppurative, Mild

Prostate

Fibrosis

Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 23	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 489 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Stomach	Epithelium	Hyperplasia	Moderate
Testes	Glandular	Inflammation	Suppurative, Moderate
		Mineralization	Moderate
		Aspermatogenesis	Mild
		Atrophy	Moderate
Urinary Bladder	Perivascular	Infiltration Cellular	Mononuclear CI, Mild
	Mucosa	Hyperplasia	Moderate
	Mucosa	Inflammation	Chronic, Mild
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 24

TRT#: 1

SEX: Male

DAY ON TEST: 455

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Mammary Gland  
Pituitary Gland  
Stomach - Forestomach  
Trachea

Adrenal Gland - Medulla  
Epididymis  
Intestine Small - Duodenum  
Lung  
Nose  
Salivary Glands  
Stomach - Glandular  
Urinary Bladder

Bone  
Esophagus  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Seminal Vesicle  
Thymus

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Spleen  
Thyroid Gland

OBSERVATIONS

Heart  
Intestine Large  
Kidney  
Liver  
  
Preputial Gland

Colon  
  
Bile Duct

Fibrosis  
Parasite Metazoan  
Nephropathy  
Hyperplasia  
Vacuolization Cytoplasmic  
Carcinoma  
Inflammation

Multifocal, Mild  
  
Chronic, Mild  
Mild  
Multifocal, Mild  
  
Suppurative, Moderate

Note: INFLAMMATION TGLs = 1

Note: CARCINOMA TGLs = 1

Prostate  
Skin

Note: KERATOACANTHMA TGLs = 2

Testes

Interstit Cell

Inflammation  
Keratoacanthoma

Chronic, Mild

Adenoma

Multiple

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 24

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Ear	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	Pancreas	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
Ear			
Note: EXT & MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
	Lens	Mineralization	Marked
[ Cataract TGLS = 1 ]			
[ Degeneration TGLS = 1 ]			
[ Mineralization TGLS = 1 ]			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 5			
Liver		Basophilic Focus	
		Cytologic Alterations	Focal, Mild
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Angiectasis	Mild
Testes	Interstit Cell	Adenoma	
		Atrophy	Moderate
Note: ADENOMA TGLs = 4			
Note: ATROPHY TGLs = 3			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 24

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.25%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 24

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

**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
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Trachea	Urinary Bladder		

**OBSERVATIONS**

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Prostate		Inflammation	Mild
Skin		Keratoacanthoma	Multiple
Note: KERATOACANTHMA TGLs = 1,2			
Testes	Interstitial Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
Note: ADENOMA TGLs = 3			
Thyroid Gland	Follicular Cel	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 25

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Brain	Ear
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	Salivary Glands
Seminal Vesicle	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Mild
Bone Marrow		Myelofibrosis	Moderate
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Eye	Retina	Degeneration	Mild
Note: DEGEN	TGLs = 1		
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Mammary Gland	Duct	Cyst	
Note: CYST	TGLs = 2		
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 5 ]			
Preputial Gland		Adenoma	
Prostate		Inflammation	Suppurative, Moderate
Note: INFLAMMATION	TGLs = 4		
Testes	Interstit Cell	Adenoma	
		Aspermatogenesis	Mild
		Atrophy	Moderate
	Perivascular	Infiltration Cellular	Mononuclear CI, Mild
	Arteriole	Necrosis	Fibrinoid, Mild
Note: ADENOMA	TGLs = 3		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 25

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** UNTREATD CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Thyroid Gland

C Cell

Hyperplasia

Focal, Mild

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 25

TRT#: 3

SEX: Male

DAY ON TEST: 699

DOSE: 0.25%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Skin  
Trachea

Bone Marrow  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Spleen  
Urinary Bladder

Brain  
Intestine Small - Duodenum  
Lung  
Salivary Glands  
Stomach - Forestomach

Esophagus  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Seminal Vesicle  
Thyroid Gland

MISSING

Thymus

OBSERVATIONS

Adrenal Gland  
Bone  
Epididymis  
Eye

Cortex

Vacuolization Cytoplasmic  
Fibrous Osteodystrophy  
Depletion Cellular  
Cataract  
Degeneration  
Hemorrhage  
Mineralization

Multifocal, Mild  
  
Marked  
Moderate  
Marked  
Moderate  
Moderate

Note: HEMORRHAGE TGLs = 6

Heart

Fibrosis

Multifocal, Moderate

Intestine Large

Colon, Muscularis

Leiomyosarcoma

Note: LEIOMYOSAR TGLs = 02

Kidney

Mineralization  
Nephropathy

Mild  
Chronic, Marked

Note: NEPHROPATHY TGLs = 11

Note: MINERALIZATION TGLs = 12

Liver

Cytologic Alterations  
Inflammation

Focal, Moderate  
Granulomatous, Multifocal, Moderate

Mammary Gland

Duct

Cyst  
Hyperplasia

Focal, Moderate

Pancreas

Note: HYPERPLASIA TGLs = 1

Parathyroid Gland

Hyperplasia

Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 25

TRT#: 3

SEX: Male

DAY ON TEST: 699

DOSE: 0.25%

DISP: Moribund

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: HYPERPLASIA TGLs = 3

Pituitary Gland

Pars Distalis

Cyst

Multiple

Preputial Gland

Fibrosis

Moderate

Prostate

Inflammation

Suppurative, Moderate

Stomach

Glandular

Mineralization

Mild

Testes

Interstit Cell

Adenoma

Aspermatogenesis

Marked

Atrophy

Marked

Degeneration

Moderate

Note: ATROPHY TGLs = 10

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 25

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Pancreas	Pituitary Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Blood		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Mild
Islets, Pancreatic		Adenoma	
Kidney	Renal Tubule	Hyperplasia	Focal, Mild
Note: HYPERPLASIA TGLs = 4,3			
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5,6			
Mesentery	Fat	Necrosis	Focal, Mild
Note: NECROSIS TGLs = 1			
Nose	Lumen	Foreign Body	Moderate
	Lumen	Inflammation	Suppurative, Moderate
Parathyroid Gland		Hyperplasia	Mild
Preputial Gland		Adenoma	
Note: ADENOMA TGLs = 8			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2 ]			
Testes	Interstitial Cell	Adenoma	
		Aspermatogenesis	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 26

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	
	Medulla	Pheochromocytoma Malignant	
Note: PHEOCHROM BGN TGLs = 3			
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Mild
Kidney	Renal Tubule	Hyperplasia	Focal, Mild
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 8			
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 9			
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 12			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 11			
Preputial Gland		Inflammation	Suppurative, Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

**ANIMAL ID:** 26

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** UNTREATD CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: INFLAMMATION TGLs = 2

Skin

Hyperkeratosis

Focal, Mild

Note: HYPERKERATOSIS TGLs = 1

Spleen

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 7

Testes

Interstit Cell

Adenoma

Multiple

Aspermatogenesis

Mild

Atrophy

Marked

Note: ADENOMA TGLs = 6

Thymus

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 26

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	Esophagus	Eye	Intestine Large - Cecum
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	Parathyroid Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Mild
Note: RECUT-POOR QUALITY-NO IMPROVEMENT OVER ORIGINAL SLIDE.			
Ear			
Note: EXT & MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Colon	Parasite Metazoan	
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 3			
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
Note: HYPERPLASIA TGLs = 4			
Prostate		Inflammation	Suppurative, Moderate
Spleen		Fibrosis	Focal, Marked
Note: FIBROSIS TGLs = 1			
Stomach	Forestomach	Inflammation	Chronic, Marked
	Forestomach	Mineralization	Mild
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Marked
	Perivascular	Infiltration Cellular	Mononuclear CI, Moderate

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 26

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.25%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Arteriole

Necrosis

Fibrinoid, Mild

Note: ATROPHY      TGLs = 2

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 26

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	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	Mammary Gland	Nose	Pancreas
Preputial Gland	Prostate	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder			

MISSING

Thymus

OBSERVATIONS

Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY	TGLs = 3		
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5		
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6		
Lymph Node	Mesenteric	Ectasia	Marked
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
Seminal Vesicle		Leukemia Mononuclear	
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4		
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 26

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 0.13%

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ATROPHY      TGLs = 1

Note: ADENOMA      TGLs = 2

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**PRIMARY CAUSE OF DEATH**      -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 27

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	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
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
	Medulla	Pheochromocytoma Benign	Multiple
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY	TGLs = 3		
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4		
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Focal, Mild
Preputial Gland		Inflammation	Suppurative, Moderate
Note: INFLAMMATION	TGLs = 1		
Prostate		Inflammation	Suppurative, Minimal
Spleen		Leukemia Mononuclear	
Testes	Interstitial Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
Note: ADENOMA	TGLs = 2		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 27

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** UNTREATD CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 27

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 0.25%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	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	Mammary Gland	Nose	Parathyroid Gland
Pituitary Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach - Forestomach	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Ear			
Note: SECTION OF EAR/PINNA-NORMAL			
Epididymis		Depletion Cellular	Marked
Kidney	Cortex	Cyst	
		Mineralization	Mild
		Nephropathy	Chronic, Marked
Liver		Inflammation	Granulomatous, Multifocal, Moderate
Lung	Alveolar Epith	Hyperplasia	Focal, Mild
Pancreas	Acinus	Atrophy	Mild
Prostate		Inflammation	Suppurative, Mild
Stomach	Glandular	Mineralization	Moderate
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 27

TRT#: 5

DOSE: 0.13%

SEX: Male

DISP: Moribund

DAY ON TEST: 561

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Esophagus	Intestine Large - Cecum
Intestine Large - Colon	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	Trachea	

MISSING

Intestine Large - Rectum	Thymus
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OBSERVATIONS

Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7			
Bone Marrow		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Mild
		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 8			
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 9			
Lung		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
Lymph Node	Inguinal	Leukemia Mononuclear	
	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4			
Pancreas		Leukemia Mononuclear	
Preputial Gland		Fibrosis	Moderate
		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 27	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 561 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Prostate		Inflammation	Suppurative, Marked
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6		
Testes	Interstit Cell	Adenoma Atrophy	Multiple Mild
Note: ADENOMA	TGLs = 5		
Thyroid Gland	C Cell	Adenoma	
Urinary Bladder		Leukemia Mononuclear	

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PRIMARY CAUSE OF DEATH -

---

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 28

TRT#: 1

SEX: Male

DAY ON TEST: 653

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood	Bone	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	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Skin	Subcut Tiss	Hemangiosarcoma	
		Hyperkeratosis	Focal, Moderate
Note: HYPERKERATOSIS	TGLs = 1		
Note: HEMANGIOSARC	TGLs = 2		
Note: HYPERKERATOSIS ON FOOT			
Spleen		Leukemia Mononuclear	
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Marked
		Atrophy	Marked
Note: ASPERMATOGEN	TGLs = 3		
Note: ADENOMA	TGLs = 4		
Note: ATROPHY	TGLs = 3		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 28

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Ear
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	Preputial Gland
Salivary Glands	Seminal Vesicle	Skin	Stomach - Forestomach
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
	Medulla	Pheochromocytoma Malignant	
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Ear			
Note: EXT &MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Eye	Cornea	Inflammation	Granulomatous, Focal, Moderate
Note: INFLAMMATION TGLs = 13			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Infiltration Cellular	Lymphocyte, Multifocal, Moderate
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 9,11			
Note: INFILTRAT CELL TGLs = 11			
Liver		Infiltration Cellular	Lymphocyte, Multifocal, Mild
Lung		Congestion	Mild
Note: CONGESTION TGLs = 5			
Lymph Node	Mediastinal	Angiectasis	Moderate
	Mandibular	Hyperplasia	Lymphoid, Marked
	Renal	Hyperplasia	Lymphoid, Moderate
Note: ANGIECTASIS TGLs = 2			
Note: HYPERPLASIA TGLs = 1			
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 7			

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 28	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Parathyroid Gland Note: HYPERPLASIA TGLs = 3		Hyperplasia	Moderate
Pituitary Gland [ Adenoma TGLS = 4 ] [ Angiectasis TGLS = 4 ]	Pars Distalis Pars Distalis	Adenoma Angiectasis	Moderate
Prostate		Inflammation	Suppurative, Moderate
Spleen		Fibrosis	Focal, Moderate
		Hyperplasia	Lymphoid, Moderate
Stomach	Glandular	Mineralization	Moderate
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Moderate
	Perivascular Arteriole	Infiltration Cellular Necrosis	Mononuclear CI, Moderate Fibrinoid, Moderate
Note: NECROSIS TGLs = 8 Note: ASPERMATOGEN TGLs = 8 Note: DEGEN TGLs = 8 Note: ATROPHY TGLs = 8			
<b>PRIMARY CAUSE OF DEATH</b>	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 28

TRT#: 5

SEX: Male

DAY ON TEST: 320

DOSE: 0.13%

DISP: Dead

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Lung  
Pancreas  
Salivary Glands  
Stomach - Forestomach  
Trachea

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Colon  
Islets, Pancreatic  
Lymph Node - Mandibular  
Parathyroid Gland  
Seminal Vesicle  
Stomach - Glandular  
Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
Kidney  
Lymph Node - Mesenteric  
Pituitary Gland  
Skin  
Thymus

Bone Marrow  
Heart  
Intestine Small - Ileum  
Liver  
Mammary Gland  
Prostate  
Spleen  
Thyroid Gland

**MISSING**

Intestine Large - Rectum

Nose

**OBSERVATIONS**

Preputial Gland

Duct

Carcinoma

Cyst

[ Carcinoma TGLS = 1 ]

[ Cyst TGLS = 1 ]

Testes

Interstit Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 29

TRT#: 1

SEX: Male

DAY ON TEST: 601

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Mammary Gland  
Pituitary Gland  
Stomach - Forestomach  
Trachea

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

Bone  
Esophagus  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
Pancreas  
Seminal Vesicle  
Thymus

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Skin  
Thyroid Gland

OBSERVATIONS

Heart  
Kidney  
Liver

Fibrosis  
Nephropathy  
Leukemia Mononuclear  
Vacuolization Cytoplasmic

Multifocal, Moderate  
Chronic, Mild  
Focal, Mild

Note: LEUKEMIA MONUC TGLs = 5

Lung  
Preputial Gland

Leukemia Mononuclear  
Carcinoma  
Inflammation

Suppurative, Moderate

Note: INFLAMMATION TGLs = 1

Note: CARCINOMA TGLs = 1

Prostate  
Spleen

Inflammation  
Leukemia Mononuclear

Suppurative, Moderate

Note: LEUKEMIA MONUC TGLs = 3,4

Testes

Interstit Cell

Adenoma  
Atrophy

Multiple  
Moderate

Note: ADENOMA TGLs = 2

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 29

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Ear	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	Preputial Gland
Salivary Glands	Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Ear			
Note: EXT & MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Moderate
Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
	Pancreatic	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2			
Pancreas	Acinus	Atrophy	Moderate
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
Prostate		Cyst	Multiple
		Inflammation	Suppurative, Moderate
Skin	Subcut Tiss	Fibroma	
		Inflammation	Chronic, Marked
		Ulcer	Focal, Marked

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

**ANIMAL ID:** 29

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.25%

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ULCER	TGLs = 1		
Note: INFLAMMATION	TGLs = 1		
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3		
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Moderate
		Necrosis	Fibrinoid, Mild
		Arteriole	
Note: DEGEN	TGLs = 6		
Note: NECROSIS	TGLs = 6		
Note: ASPERMATOGEN	TGLs = 6		
Note: ATROPHY	TGLs = 6		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 29

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	Esophagus	Eye
Intestine Large - Cecum	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

Ear			
Note: EAR - EXTERNAL & MIDDLE EAR NORMAL			
Epididymis		Depletion Cellular	Marked
Eye			
Note: EYE- NORMAL			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 10			
Liver		Cytologic Alterations	Focal, Mild
		Hepatocellular Carcinoma	
	Bile Duct	Hyperplasia	Mild
Note: CYTOLOGC ALTER TGLs = 2			
Note: HYPERPLASIA TGLs = 2			
Note: HEPATOCLR CARC TGLs = 1			
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 6			
Pituitary Gland	Pars Distalis	Adenoma	Multiple
Testes	Interstit Cell	Adenoma	Mild
		Aspermatogenesis	Moderate
		Atrophy	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 29

**TRT#:** 5  
**DOSE:** 0.13%

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

**DAY ON TEST:** 734  
**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA      TGLs = 7  
Note: ATROPHY      TGLs = 8

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 30

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	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	Prostate	Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Multifocal, Moderate
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Marked
	Atrium	Thrombosis	
Note: MASS II- THYMUS IS HEART-THROMBUS			
Note: THROMBUS TGLs = 11			
Kidney		Nephropathy	Chronic, Moderate
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Focal, Moderate
Note: VACUOLIZ CYTO TGLs = 10			
Note: LEUKEMIA MONUC TGLs = 9,10			
Lung		Leukemia Mononuclear	
Lymph Node	Mesenteric	Angiectasis	Moderate
	Mandibular	Leukemia Mononuclear	
Note: ANGIECTASIS TGLs = 8			
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland		Leukemia Mononuclear	
Preputial Gland	Duct	Cyst	
		Inflammation	Suppurative, Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

**ANIMAL ID:** 30

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** UNTREATD CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: INFLAMMATION TGLs = 1

Note: CYST TGLs = 1

Spleen

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 5,6

Testes

Interstit Cell

Adenoma

Multiple

Aspermatogenesis

Mild

Atrophy

Marked

Note: ADENOMA TGLs = 4

Note: ATROPHY TGLs = 3

Thymus

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 30	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**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	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Preputial Gland
Salivary Glands	Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

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**OBSERVATIONS**

Adrenal Gland	Medulla	Hyperplasia	Focal, Mild
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 10			
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 12			
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
	Renal	Leukemia Mononuclear	
Note: HYPERPLASIA TGLs = 2			
Note: LEUKEMIA MONUC TGLs = 3			
Pancreas	Acinus	Atrophy	Moderate
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
Prostate		Inflammation	Suppurative, Moderate
Skin		Basal Cell Carcinoma	
Note: BASAL CEL CARC TGLs = 1			
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 9			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 30	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Testes	Interstit Cell	Adenoma Aspermatogenesis Atrophy Degeneration	Moderate Moderate Moderate
	Interstit Cell	Hyperplasia	Moderate

Note: DEGEN TGLs = 7  
Note: ADENOMA TGLs = 8  
Note: ATROPHY TGLs = 7  
Note: ASPERMATOGEN TGLs = 7

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PRIMARY CAUSE OF DEATH

---

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 30

TRT#: 5

SEX: Male

DAY ON TEST: 679

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Stomach - Forestomach  
Trachea

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Liver  
Pituitary Gland  
Stomach - Glandular

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Prostate  
Thymus

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Salivary Glands  
Thyroid Gland

OBSERVATIONS

Blood  
  
Epididymis  
  
Note: MESOTHELIO MAL TGLs = 7  
Heart  
Kidney  
Note: NEPHROPATHY TGLs = 10  
Lymph Node  
Mammary Gland  
Mesentery  
Note: MESOTHELIO MAL TGLs = 4  
Pancreas  
Note: MESOTHELIO MAL TGLs = 8  
Parathyroid Gland  
Preputial Gland  
Note: CARCINOMA TGLs = 3  
Seminal Vesicle  
Skin  
  
Note: CYST EPITH INC TGLs = 2

Mesenteric  
Duct  
  
  
  
  
  
  
  
  
  
Subcut Tiss

Anemia  
Polychromasia  
Depletion Cellular  
Mesothelioma Malignant  
  
Fibrosis  
Nephropathy  
  
Hyperplasia  
Cyst  
Mesothelioma Malignant  
  
Mesothelioma Malignant  
  
Hyperplasia  
Carcinoma  
  
Mesothelioma Malignant  
Cyst Epithelial Inclusion  
Fibrosis  
Mineralization

Moderate  
  
Multifocal, Mild  
Chronic, Marked  
  
Lymphoid, Moderate  
  
Multiple  
  
Mild  
  
Focal, Moderate  
Focal, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 30

**TRT#:** 5  
**DOSE:** 0.13%

**SEX:** Male  
**DISP:** Moribund

**DAY ON TEST:** 679  
**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: MINERALIZATION TGLs = 5

Note: FIBROSIS TGLs = 1,5

Spleen

Stomach

Testes

Serosa

Interstit Cell

Tunic

Mesothelioma Malignant

Mesothelioma Malignant

Adenoma

Aspermatogenesis

Atrophy

Mesothelioma Malignant

Multiple

Mild

Moderate

Note: ADENOMA TGLs = 9

Note: MESOTHELIO MAL TGLs = 7

Urinary Bladder

Mesothelioma Malignant

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 31

TRT#: 1

SEX: Male

DAY ON TEST: 678

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Esophagus	Intestine Large - Cecum
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lymph Node - Mesenteric	Mammary Gland	Nose
Parathyroid Gland	Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	Multiple
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Colon	Parasite Metazoan	
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 8			
Liver	Bile Duct	Cytologic Alterations	Focal, Moderate
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 10			
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 11,12			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
Mesentery	Fat	Edema	Moderate
Note: EDEMA TGLs = 2			
Pancreas	Adventitia	Edema	Moderate
Note: EDEMA TGLs = 6			
Pituitary Gland		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 31	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 678
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Preputial Gland Note: CYST TGLs = 4	Duct	Cyst	
Prostate		Inflammation	Suppurative, Mild
Skin Note: PAPILLOMA SQUA TGLs = 1		Squamous Cell Papilloma	
Spleen Note: LEUKEMIA MONUC TGLs = 7		Leukemia Mononuclear	
Testes Note: ADENOMA TGLs = 5	Interstit Cell	Adenoma Aspermatogenesis Atrophy	Multiple Mild Marked

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 31

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	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	Mammary Gland	Nose	Pituitary Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Spleen
Stomach - Forestomach	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	Multiple
Ear			
Note: EXT & MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Eye	Retina	Degeneration	Minimal
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 3			
Pancreas	Acinus	Atrophy	Mild
Parathyroid Gland		Hyperplasia	Mild
Prostate		Inflammation	Suppurative, Moderate
Skin		Squamous Cell Papilloma	
Note: PAPILLOMA SQUA TGLs = 1			
Stomach	Glandular	Mineralization	Minimal
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Moderate
	Perivascular	Infiltration Cellular	Mononuclear CI, Moderate
	Arteriole	Necrosis	Fibrinoid, Moderate
Note: ATROPHY TGLs = 2			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 31

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.25%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ASPERMATOGEN TGLs = 2

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PRIMARY CAUSE OF DEATH

-

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Animal Note: TESTES-GOOD SPECIMAN FOR PHOTOGRAPH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 31

TRT#: 5

DOSE: 0.13%

SEX: Male

DISP: Moribund

DAY ON TEST: 700

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
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	Mammary Gland
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	Trachea	Urinary Bladder	

MISSING

Thymus

OBSERVATIONS

Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Mild
Lung		Infiltration Cellular	Histiocyte, Mild
Note: INFILTRAT CELL TGLs = 6			
Preputial Gland	Duct	Cyst	
Skin	Subcut Tiss	Fibrosarcoma	
	Subcut Tiss	Schwannoma Nos	
Note: SCHWANNOMA NOS TGLs = 1			
Note: FIBROSARC TGLs = 2			
Spleen		Congestion	Moderate
Note: CONGESTION TGLs = 5			
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Moderate
Note: ATROPHY TGLs = 4			
Note: ADENOMA TGLs = 3			
Thyroid Gland	Follicle	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 31

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 700

**DOSE:** 0.13%

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Pancreas	Pituitary Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland Note: PHEOCHROM BGN TGLs = 5	Medulla	Pheochromocytoma Benign	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney Note: NEPHROPATHY TGLs = 6		Nephropathy	Chronic, Marked
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Marked
Mammary Gland Note: CYST TGLs = 1	Duct	Cyst	
Parathyroid Gland		Hyperplasia	Mild
Preputial Gland		Carcinoma	
Prostate Note: INFLAMMATION TGLs = 4		Inflammation	Suppurative, Moderate
Seminal Vesicle		Inflammation	Suppurative, Moderate
Testes	Interstitial Cell	Atrophy	Moderate
		Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Moderate
Note: ATROPHY TGLs = 3			
Note: ADENOMA TGLs = 2			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 32

TRT#: 3

SEX: Male

DAY ON TEST: 632

DOSE: 0.25%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Parathyroid Gland  
Seminal Vesicle  
Thyroid Gland

Bone  
Intestine Large - Rectum  
Islets, Pancreatic  
Pituitary Gland  
Skin  
Trachea

Brain  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
Preputial Gland  
Stomach - Forestomach

Esophagus  
Intestine Small - Ileum  
Nose  
Salivary Glands  
Stomach - Glandular

OBSERVATIONS

Adrenal Gland

Cortex  
Cortex

Adenoma  
Vacuolization Cytoplasmic

Focal, Moderate

Blood  
Bone Marrow  
Epididymis  
Heart  
Intestine Large  
Kidney

Colon  
Pelvis  
Pelvis, Transit Epithe

Leukemia Mononuclear  
Leukemia Mononuclear  
Depletion Cellular  
Fibrosis  
Parasite Metazoan  
Hydronephrosis  
Hyperplasia  
Nephropathy

Marked  
Multifocal, Moderate  
Moderate  
Moderate  
Chronic, Moderate

Note: HYDRONEPHROSIS TGLs = 9,10  
Liver

Bile Duct

Hyperplasia  
Hyperplasia  
Leukemia Mononuclear

Moderate  
Nodular, Moderate

Note: LEUKEMIA MONUC TGLs = 4,11  
Note: HYPERPLASIA TGLs = 11  
Note: HYPERPLASIA TGLs = 4

Lung  
Lymph Node

Mesenteric  
Renal  
Mesenteric

Leukemia Mononuclear  
Angiectasis  
Angiectasis  
Leukemia Mononuclear

Moderate  
Moderate

Note: LEUKEMIA MONUC TGLs = 12  
Note: ANGIECTASIS TGLs = 12

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

<b>ANIMAL ID:</b> 32	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 632 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ANGIECTASIS	TGLs = 12			
Mammary Gland		Duct	Cyst	
Mesentery		Artery	Inflammation	Chronic, Marked
Note: INFLAMMATION	TGLs = 3			
Pancreas		Artery	Inflammation	Chronic, Marked
Note: INFLAMMATION	TGLs = 1			
Prostate			Inflammation	Suppurative, Marked
Note: INFLAMMATION	TGLs = 8			
Note: INFLAMMATION- SLIDES 7C,7D,7E				
Spleen			Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7 ]				
Testes			Aspermatogenesis	Marked
			Atrophy	Marked
			Degeneration	Moderate
Note: ATROPHY	TGLs = 6			
Note: ASPERMATOGEN	TGLs = 6			
Thymus		Artery	Inflammation	Moderate
Ureter			Dilatation	Marked
Note: DILATATION	TGLs = 2			
Urinary Bladder		Mucosa	Hyperplasia	Mild
PRIMARY CAUSE OF DEATH		-		

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 32

TRT#: 5

SEX: Male

DAY ON TEST: 712

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Ear	Esophagus
Intestine Large - Cecum	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Mammary Gland	Nose	Pancreas
Pituitary Gland	Preputial Gland	Prostate	Salivary Glands
Spinal Cord	Stomach - Forestomach	Stomach - Glandular	Thymus
Trachea	Urinary Bladder		

MISSING

Parathyroid Gland

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	Multiple
Note: LEUKEMIA MONUC	TGLs = 11		
Note: PHEOCHROM BGN	TGLs = 11		
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Ear			
Note: EXTERNAL & MIDDLE EAR- NORMAL			
Epididymis		Depletion Cellular	Marked
		Mesothelioma Malignant	
Heart		Fibrosis	Multifocal, Moderate
		Leukemia Mononuclear	
Intestine Large	Colon	Parasite Metazoan	
	Colon	Polyp Adenomatous	
Note: POLYP ADENOMAT	TGLs = 4		
Islets, Pancreatic		Adenoma	
Note: ADENOMA	TGLs = 2		
Kidney		Nephropathy	Chronic, Mild
Note: NEPHROPATHY	TGLs = 12		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 32	TRT#: 5 DOSE: 0.13%	SEX: Male DISP: Moribund	DAY ON TEST: 712 HISTO:
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Liver Note: LEUKEMIA MONUC TGLs = 13	Bile Duct	Hyperplasia Leukemia Mononuclear	Moderate
Lung Note: LEUKEMIA MONUC TGLs = 15		Leukemia Mononuclear	
Lymph Node	Mandibular Mediastinal Mesenteric	Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear	
Seminal Vesicle		Atrophy	Moderate
Skin Note: CYST EPITH INC TGLs = 1		Cyst Epithelial Inclusion	
Spinal Cord Note: SPINAL CORD- NORMAL			
Spleen Note: LEUKEMIA MONUC TGLs = 3,9,10		Leukemia Mononuclear	
Testes	Interstit Cell	Adenoma Aspermatogenesis Atrophy	Multiple Mild Moderate
Note: MESOTHELIO MAL TGLs = 8 Note: ADENOMA TGLs = 6 Note: ATROPHY TGLs = 7	Tunic	Mesothelioma Malignant	
Thyroid Gland	C Cell	Adenoma	
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 33

TRT#: 1

SEX: Male

DAY ON TEST: 677

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

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	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Parathyroid Gland
Pituitary Gland	Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder			

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Cyst	
	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY	TGLs = 2,5		
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 8		
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 9		
Pancreas	Acinus	Adenoma	
Note: ADENOMA	TGLs = 6		
Preputial Gland	Duct	Cyst	
Prostate		Inflammation	Suppurative, Moderate
Spleen		Fibrosis	Focal, Moderate
		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 33

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 677

**DOSE:** UNTREATD CONTROL

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: FIBROSIS TGLs = 1

Note: LEUKEMIA MONUC TGLs = 1

Testes

Interstit Cell

Hyperplasia

Moderate

Note: HYPERPLASIA TGLs = 4

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 33

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex

Bone Marrow

Brain

Ear

Esophagus

Eye

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

Preputial Gland

Salivary Glands

Seminal Vesicle

Skin

Stomach - Forestomach

Thyroid Gland

Trachea

Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Adrenal Gland

Medulla

Pheochromocytoma Benign

Bone

Fibrous Osteodystrophy

Moderate

Ear

Note: EXT&MIDDLE EAR-NORMAL

Epididymis

Depletion Cellular

Marked

Eye

Note: EYE-NOT REMARKABLE.

Heart

Fibrosis

Multifocal, Moderate

Intestine Large

Cecum, Submucosa

Edema

Moderate

Note: EDEMA TGLs = 1

Kidney

Pelvis, Transit Epithe

Carcinoma

Nephropathy

Chronic, Marked

Note: NEPHROPATHY TGLs = 11

Liver

Bile Duct

Hyperplasia

Inflammation

Mild

Infiltration Cellular

Granulomatous, Multifocal, Moderate

Histiocyte, Moderate

Note: INFILTRAT CELL TGLs = 5

Lymph Node

Mediastinal

Angiectasis

Moderate

Renal

Angiectasis

Marked

Note: ANGIECTASIS TGLs = 3

Note: ANGIECTASIS TGLs = 2

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 33	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Nose	Lumen	Inflammation	Suppurative, Moderate
Parathyroid Gland Note: HYPERPLASIA TGLs = 4		Hyperplasia	Marked
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
Prostate		Inflammation	Suppurative, Moderate
Spleen Note: FIBROSIS TGLs = 10 [ Fibrosis TGLS = 10 ]		Fibrosis Hyperplasia	Focal, Moderate Lymphoid, Moderate
Stomach	Glandular	Mineralization	Moderate
Testes Note: ASPERMATOGEN TGLs = 9 Note: ATROPHY TGLs = 9		Aspermatogenesis Atrophy Degeneration	Marked Marked Moderate

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 33

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	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 - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Mild
Ear			
Note: EXTERNAL & MIDDLE EAR NORMAL			
Epididymis		Depletion Cellular	Marked
		Mesothelioma Malignant	
Heart		Fibrosis	Multifocal, Moderate
Kidney	Pelvis, Transit Epithe	Hyperplasia	Mild
		Nephropathy	Chronic, Moderate
		Fibroadenoma	
Mammary Gland			
Note: FIBROADENOMA TGLs = 1			
Note: SLIDE I- CONTAINS MAMMARY GLAND & PREPUTIAL GLAND			
Pancreas	Acinus	Atrophy	Mild
Preputial Gland		Carcinoma	
Note: CARCINOMA TGLs = 1			
Note: SLIDE I- CONTAINS MAMMARY GLAND & PREPUTIAL GLAND			
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
	Tunic	Mesothelioma Malignant	
Note: ADENOMA TGLs = 2,3			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 34

TRT#: 1

SEX: Male

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

**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	Liver	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

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex	Angiectasis	Moderate
	Medulla	Pheochromocytoma Benign	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Marked
Pancreas	Acinus	Atrophy	Moderate
Preputial Gland		Hyperplasia	Moderate
		Inflammation	Suppurative, Moderate
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Moderate

Note: ADENOMA TGLs = 1

[ Atrophy TGLS = 2 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 34

TRT#: 3

SEX: Male

DAY ON TEST: 386

DOSE: 0.25%

DISP: Moribund

HISTO:

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

Liver

Lung

Lymph Node - Mandibular

Lymph Node - Mesenteric

Mammary Gland

Parathyroid Gland

Pituitary Gland

Prostate

Salivary Glands

Seminal Vesicle

Skin

Stomach - Glandular

Thymus

Trachea

Urinary Bladder

MISSING

Nose

Preputial Gland

Stomach - Forestomach

OBSERVATIONS

Bone

Vertebra

Osteosarcoma

Note: OSTEOSARC

TGLs = 2

Epididymis

Depletion Cellular

Marked

Heart

Fibrosis

Multifocal, Mild

Kidney

Nephropathy

Chronic, Mild

Pancreas

Acinus

Atrophy

Mild

Spleen

Congestion

Moderate

Testes

Aspermatogenesis

Moderate

Atrophy

Moderate

Degeneration

Moderate

Note: ATROPHY

TGLs = 1

Thyroid Gland

Ultimobranchial Cyst

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 34

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Pancreas
Pituitary Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	
Blood		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Harderian Gland		Fibrosis	Moderate
Heart		Fibrosis	Multifocal, Moderate
Kidney	Cortex	Cyst	
	Pelvis	Hydronephrosis	Moderate
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 5 [ Cyst TGLS = 6 ] [ Nephropathy TGLS = 7 ]			
Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Neoplastic Nodule	Multiple
Note: NEOPLASTIC NOD TGLs = 1 Note: LEUKEMIA MONUC TGLs = 8			
Lung	Bronchus	Squamous Cell Carcinoma	
Note: SQUAM CEL CARC TGLs = 2			
Parathyroid Gland		Hyperplasia	Moderate
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 34

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 0.13%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Stomach

Glandular

Mineralization

Mild

Testes

Interstit Cell

Adenoma

Aspermatogenesis

Mild

Atrophy

Marked

Note: ADENOMA TGLs = 4

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 35

TRT#: 1

SEX: Male

DAY ON TEST: 630

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Intestine Large - Cecum
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
Prostate	Salivary Glands	Seminal Vesicle	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Coagulating Gland Note: INFLAMMATION TGLs = 2		Inflammation	Chronic, Moderate
Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Colon	Parasite Metazoan	
Kidney		Nephropathy	Chronic, Mild
Mammary Gland Note: CYST TGLs = 3	Duct	Cyst	
Pituitary Gland [ Adenoma TGLS = 7 ] [ Angiectasis TGLS = 7 ]	Pars Distalis Pars Distalis	Adenoma Angiectasis	Moderate
Preputial Gland Note: CARCINOMA TGLs = 1		Carcinoma	
Skin Note: ULCER TGLs = 1	Prepuce	Ulcer	Marked
Testes Note: HYPERPLASIA TGLs = 4	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 35

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Brain	Ear
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
Mammary Gland	Nose	Pancreas	Pituitary Gland
Preputial Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
	Medulla	Pheochromocytoma Malignant	
[ Pheochromocytoma Benign TGLS = 1 ]			
Bone Marrow		Atrophy	Marked
Ear			
Note: EXT & MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 6			
Parathyroid Gland		Hyperplasia	Moderate
Prostate		Inflammation	Suppurative, Mild
Seminal Vesicle		Atrophy	Mild
Testes	Interstitial Cell	Adenoma	
		Aspermatogenesis	Moderate
		Atrophy	Marked
	Perivascular	Infiltration Cellular	Mononuclear CI, Moderate
Note: ADENOMA TGLs = 4			
Note: ASPERMATOGEN TGLs = 5			
Note: ATROPHY TGLs = 5			
Thyroid Gland	C Cell	Hyperplasia	Focal, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 35

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.25%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 35

TRT#: 5

SEX: Male

DAY ON TEST: 483

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Epididymis	Esophagus	Intestine Large - Cecum	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Stomach - Glandular	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Intestine Small - Ileum

OBSERVATIONS

Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
Harderian Gland		Ectasia	Moderate
Heart		Fibrosis	Multifocal, Mild
Intestine Large	Colon	Parasite Metazoan	
Kidney		Nephropathy	Chronic, Minimal
Lung	Interstitialium	Edema	Mild
	Bronchiole	Foreign Body	Mild
		Inflammation	Suppurative, Mild
Note: FOREIGN BODY TGLs = 2			
Note: EDEMA TGLs = 2			
Note: INFLAMMATION TGLs = 2			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
Pancreas	Acinus	Atrophy	Moderate
Parathyroid Gland		Hyperplasia	Mild
Spleen		Hemangiosarcoma	
Note: HEMANGIOSARC TGLs = 1			
Stomach	Forestomach	Inflammation	Chronic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 36

TRT#: 1

SEX: Male

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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	Liver
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Preputial Gland
Salivary Glands	Seminal Vesicle	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	Urinary Bladder

MISSING

Mammary Gland

OBSERVATIONS

Adrenal Gland Note: PHEOCHROM MAL TGLs = 3	Medulla	Pheochromocytoma Malignant	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Intestine Large Note: PARASITE META TGLs = 6	Colon	Parasite Metazoan	
Kidney Note: CYST TGLs = 5 Note: NEPHROPATHY TGLs = 4	Cortex	Cyst Nephropathy	Chronic, Marked
Prostate		Inflammation	Suppurative, Minimal
Skin [ Cyst Epithelial Inclusion TGLS = 1 ]		Cyst Epithelial Inclusion	
Testes Note: ADENOMA TGLs = 2	Interstit Cell	Adenoma Aspermatogenesis Atrophy	Multiple Mild Marked
Thyroid Gland Note: ADENOMA TGLs = 8	C Cell C Cell	Adenoma Hyperplasia	Multiple Focal, Moderate

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 36

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 735

**DOSE:** UNTREATD CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 36

TRT#: 3

SEX: Male

DAY ON TEST: 413

DOSE: 0.25%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex

Adrenal Gland - Medulla

Bone

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

Salivary Glands

Seminal Vesicle

Skin

Stomach - Forestomach

Stomach - Glandular

Thymus

Thyroid Gland

Trachea

Urinary Bladder

MISSING

Blood

Preputial Gland

OBSERVATIONS

Bone Marrow

Leukemia Mononuclear

Brain

Cerebellum

Hemorrhage

Acute, Multifocal, Moderate

Leukemia Mononuclear

Note: HEMORRHAGE TGLs = 16,17,18

Note: LEUKEMIA MONUC TGLs = 16,17,18

Epididymis

Depletion Cellular

Marked

Kidney

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 10

Liver

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 12

Lung

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 14

Lymph Node

Deep Cervical

Leukemia Mononuclear

Iliac

Leukemia Mononuclear

Inguinal

Leukemia Mononuclear

Mandibular

Leukemia Mononuclear

Mediastinal

Leukemia Mononuclear

Mesenteric

Leukemia Mononuclear

Pancreatic

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 15

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 36

TRT#: 3

SEX: Male

DAY ON TEST: 413

DOSE: 0.25%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

Note: LEUKEMIA MONUC TGLs = 7

Note: LEUKEMIA MONUC TGLs = 15

Note: LEUKEMIA MONUC TGLs = 4

Note: LEUKEMIA MONUC TGLs = 5

[ Leukemia Mononuclear TGLS = 2 ]

[ Leukemia Mononuclear TGLS = 15 ]

Pituitary Gland

Pars Distalis

Hyperplasia

Focal, Moderate

Prostate

Inflammation

Suppurative, Moderate

Note: INFLAMMATION TGLs = 6

Spleen

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 8

Testes

Aspermatogenesis

Moderate

Atrophy

Moderate

Perivascular

Infiltration Cellular

Mononuclear CI, Mild

Note: ATROPHY TGLs = 21

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 36

TRT#: 5

SEX: Male

DAY ON TEST: 726

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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
Mammary Gland	Nose	Pancreas	Preputial Gland
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder			

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
	Cortex	Vacuolization Cytoplasmic	Multifocal, Mild
Note: VACUOLIZ CYTO TGLs = 5			
Bone		Fibrous Osteodystrophy	Moderate
Epididymis		Mesothelioma Malignant	
Heart		Fibrosis	Multifocal, Mild
Kidney	Pelvis	Hydronephrosis	Mild
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 2			
Liver		Degeneration	Cystic, Focal, Mild
	Bile Duct	Hyperplasia	Mild
Lung		Hemorrhage	Multifocal, Moderate
		Infiltration Cellular	Histiocyte, Mild
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
Prostate		Cyst	
		Inflammation	Suppurative, Mild
Note: PROSTATE- CYSTIC DUCT			
Testes	Tunic	Mesothelioma Malignant	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 36

**TRT#:** 5

**DOSE:** 0.13%

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 726

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	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 - Mesenteric	Mammary Gland	Nose	Pancreas
Preputial Gland	Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 6			
Liver		Cytologic Alterations	Focal, Moderate
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Carcinoma	
[ Angiectasis TGLs = 7 ]			
[ Carcinoma TGLs = 7 ]			
Prostate		Inflammation	Suppurative, Minimal
Skin		Basal Cell Carcinoma	
[ Basal Cell Carcinoma TGLs = 1 ]			
Spleen		Fibrosis	Moderate
Note: FIBROSIS TGLs = 2+3			
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 37	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 735
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ATROPHY	TGLs = 4	Perivascular	Infiltration Cellular	Mononuclear CI, Mild
Note: ADENOMA	TGLs = 5			

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 37

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

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
Mammary Gland	Nose	Pancreas	Pituitary Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Thymus	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Blood		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Islets, Pancreatic		Carcinoma	
Note: CARCINOMA TGLs = 3			
Kidney	Cortex	Cyst	Multiple
		Nephropathy	Chronic, Marked
Note: CYST TGLs = 8,9			
Note: NEPHROPATHY TGLs = 7			
Liver	Bile Duct	Cytologic Alterations	Focal, Mild
		Hyperplasia	Moderate
		Leukemia Mononuclear	
Lymph Node	Mesenteric	Hyperplasia	Lymphoid, Moderate
	Pancreatic	Hyperplasia	Lymphoid, Moderate
	Renal	Hyperplasia	Lymphoid, Moderate
Note: HYPERPLASIA TGLs = 4			
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 2			
Parathyroid Gland		Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 12			
Prostate		Cyst	Multiple

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01  
 Test Type: CHRONIC  
 Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
 Test Compound: Nitrofurantoin  
 CAS Number: 67-20-9

Date Report Requested: 10/23/2014  
 Time Report Requested: 13:53:40  
 First Dose M/F: NA / NA  
 Lab: SRI

<b>ANIMAL ID:</b> 37	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Skin Note: FIBROMA TGLs = 1	Subcut Tiss	Inflammation Fibroma	Suppurative, Mild
Spleen	Glandular	Leukemia Mononuclear	
Stomach		Mineralization	Minimal
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Moderate
	Perivascular Arteriole	Infiltration Cellular Necrosis	Mononuclear CI, Moderate Fibrinoid, Mild
Note: ATROPHY TGLs = 6 Note: ASPERMATOGEN TGLs = 6			
Thyroid Gland	C Cell C Cell	Adenoma Hyperplasia	Focal, Mild
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 37

TRT#: 5

DOSE: 0.13%

SEX: Male

DISP: Moribund

DAY ON TEST: 722

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
Salivary Glands  
Thyroid Gland

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Nose  
Seminal Vesicle  
Trachea

Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Pancreas  
Skin  
Urinary Bladder

Esophagus  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
Pituitary Gland  
Spleen

MISSING

Thymus

OBSERVATIONS

Adrenal Gland  
Note: PHEOCHROM MAL TGLs = 7

Medulla

Pheochromocytoma Malignant

Bone  
Epididymis  
Heart  
Kidney  
Note: NEPHROPATHY TGLs = 8

Fibrous Osteodystrophy  
Depletion Cellular  
Fibrosis  
Nephropathy

Mild  
Marked  
Multifocal, Mild  
Chronic, Marked

Liver  
Lung  
Note: EDEMA TGLs = 9  
[ Edema TGLS = 9 ]

Alveolus

Hematopoietic Cell Proliferation  
Edema  
Infiltration Cellular

Mild  
Moderate  
Histiocyte, Moderate

Mammary Gland  
Mesentery  
Note: MINERALIZATION TGLs = 2  
Note: VENOUS PLEXUS IN SPERMATIC CORD

Duct

Cyst  
Mineralization

Moderate

Parathyroid Gland  
Note: HYPERPLASIA TGLs = 10

Hyperplasia

Moderate

Preputial Gland  
Duct

Carcinoma  
Cyst  
Inflammation

Suppurative, Marked

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 37

TRT#: 5

SEX: Male

DAY ON TEST: 722

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

Note: INFLAMMATION TGLs = 5

Note: CARCINOMA TGLs = 1

Prostate

Stomach

Testes

Note: ADENOMA TGLs = 4

Thyroid GI

Note: WHITE SPOT IS PARATHYROID GL

Forestomach

Forestomach

Glandular

Interstit Cell

Inflammation

Inflammation

Mineralization

Mineralization

Adenoma

Aspermatogenesis

Atrophy

Chronic, Mild

Chronic, Moderate

Moderate

Moderate

Multiple

Mild

Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 38

TRT#: 1

SEX: Male

DAY ON TEST: 723

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	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 - Mandibular
Mammary Gland	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
	Cortex	Leukemia Mononuclear	
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 2			
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5			
Lymph Node	Mesenteric	Leukemia Mononuclear	
Nose	Submucosa	Leukemia Mononuclear	
Preputial Gland	Duct	Cyst	
Skin		Cyst Epithelial Inclusion	
Note: CYST EPITH INC TGLs = 1			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3 ]			
Testes	Interstitial Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
Note: ADENOMA TGLs = 4			
Thyroid Gland	C Cell	Hyperplasia	Focal, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 38

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 723

**DOSE:** UNTREATD CONTROL

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 38

TRT#: 3

SEX: Male

DAY ON TEST: 532

DOSE: 0.25%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	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	Mammary Gland	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Preputial Gland
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Epididymis		Depletion Cellular	Moderate
Kidney		Carcinoma	Metastatic (Zymbal'S Gland)
Lung		Carcinoma	Metastatic (Zymbal'S Gland)
	Alveolus	Edema	Marked
Note: CARCINOMA	TGLs = 4		
Lymph Node	Bronchial	Carcinoma	Metastatic (Zymbal'S Gland)
Prostate		Inflammation	Suppurative, Moderate
Testes		Aspermatogenesis	Moderate
		Atrophy	Moderate
		Degeneration	Moderate
Note: ATROPHY	TGLs = 3		
Zymbal's Gland		Carcinoma	
[ Carcinoma TGLS = 1 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 38

TRT#: 5

SEX: Male

DAY ON TEST: 687

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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	Nose	Pituitary Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Spleen	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Focal, Mild
	Medulla	Hyperplasia	Focal, Mild
Bone		Fibrous Osteodystrophy	Moderate
Epididymis		Depletion Cellular	Marked
Eye	Cornea	Mineralization	Marked
Note: MINERALIZATION TGLs = 6			
Heart		Fibrosis	Multifocal, Moderate
Kidney	Cortex	Cyst	Multiple
		Nephropathy	Chronic, Marked
Note: CYST TGLs = 3,4			
Note: NEPHROPATHY TGLs = 3,4			
Liver		Inflammation	Granulomatous, Multifocal, Mild
Lymph Node	Pancreatic	Hyperplasia	Lymphoid, Moderate
Note: HYPERPLASIA TGLs = 2			
Pancreas	Artery	Inflammation	Chronic, Marked
Note: INFLAMMATION TGLs = 1			
Parathyroid Gland		Hyperplasia	Marked
Note: HYPERPLASIA TGLs = 5			
Preputial Gland	Duct	Cyst	
Stomach	Forestomach	Inflammation	Chronic, Marked
	Forestomach	Mineralization	Moderate
	Glandular	Mineralization	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 38	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 687 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Testes	Interstit Cell	Adenoma Aspermatogenesis Atrophy	Multiple Mild Moderate
	Perivascular Arteriole	Infiltration Cellular Necrosis	Mononuclear CI, Mild Fibrinoid, Minimal

Note: ATROPHY      TGLs = 9  
Note: ADENOMA      TGLs = 10

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 39

TRT#: 1

SEX: Male

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	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
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Trachea	Urinary Bladder		

MISSING

Lymph Node - Mesenteric

OBSERVATIONS

Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY	TGLs = 4		
Liver		Degeneration	Cystic, Focal, Marked
Mammary Gland	Duct	Cyst	
Mesentery		Inflammation	Granulomatous, Moderate
Note: INFLAMMATION	TGLs = 1		
Prostate		Mineralization	Focal, Mild
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Moderate
		Atrophy	Moderate
Note: ATROPHY	TGLs = 2		
Note: ADENOMA	TGLs = 3		
Thyroid Gland	C Cell	Hyperplasia	Multifocal, Moderate
	Follicle	Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 39

TRT#: 3

SEX: Male

DAY ON TEST: 715

DOSE: 0.25%

DISP: Moribund

HISTO:

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	Lymph Node - Mesenteric
Mammary Gland	Nose	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Medulla	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	
Blood		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3		
Bone Marrow		Myelofibrosis	Marked
Epididymis		Depletion Cellular	Marked
Heart	Valve	Bacterium	Marked
		Fibrosis	Multifocal, Moderate
		Inflammation	Suppurative, Marked
Kidney		Embolus Bacterial	Multifocal, Moderate
		Inflammation	Suppurative, Moderate
		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY	TGLs = 5		
Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Leukemia Mononuclear	
Lung			
Note: LEUKEMIA MONUC	TGLs = 6		
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
	Mediastinal	Hyperplasia	Lymphoid, Moderate
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Multifocal, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 39

**TRT#:** 3

**DOSE:** 0.25%

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 715

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Skin	Subcut Tiss	Basosquamous Tumor Benign	
Note: BASOSQU TM BGN	TGLs = 1		
Spleen		Fibrosis	Diffuse, Moderate
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Moderate
Note: ASPERMATOGEN	TGLs = 4		
Note: ATROPHY	TGLs = 4		

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 39

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	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 - Mesenteric
Mammary Gland	Nose	Pancreas	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Thymus	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Blood		Leukemia Mononuclear	
Ear			
Note: EXTERNAL & MIDDLE EAR- NORMAL			
Epididymis		Depletion Cellular	Marked
Harderian Gland		Fibrosis	Moderate
Kidney	Pelvis	Hydronephrosis	Moderate
	Pelvis, Transit Epithe	Hyperplasia	Mild
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 3,4			
Liver		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
Parathyroid Gland		Hyperplasia	Mild
Spleen		Leukemia Mononuclear	
Stomach	Glandular	Mineralization	Moderate
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
Note: ADENOMA TGLs = 2			
Thyroid Gland	C Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 39

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 0.13%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 40

TRT#: 1

SEX: Male

DAY ON TEST: 621

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

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	Mammary Gland
Nose	Pancreas	Parathyroid Gland	Prostate
Salivary Glands	Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Blood		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Liver		Cytologic Alterations	Focal, Mild
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2		
Note: CYTOLOGC ALTER	TGLs = 2		
Lung		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
Preputial Gland		Adenoma	
	Duct	Cyst	
		Inflammation	Suppurative, Mild
Note: CYST	TGLs = 3		
Note: INFLAMMATION	TGLs = 3		
Note: ADENOMA	TGLs = 3		
Skin		Basal Cell Carcinoma	
Note: BASAL CEL CARC	TGLs = 1		
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 7		
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 40

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 621

**DOSE:** UNTREATD CONTROL

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Atrophy

Marked

Note: ATROPHY      TGLs = 5

Note: ADENOMA      TGLs = 4

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 40

TRT#: 3

SEX: Male

DAY ON TEST: 670

DOSE: 0.25%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	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	Pituitary Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder			

MISSING

Mammary Gland	Thymus
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OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Blood		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 9			
Ear			
Note: EAR- EXTERNAL & MIDDLE EAR NORMAL			
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney	Pelvis	Hydronephrosis	Moderate
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 4			
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6			
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
Parathyroid Gland		Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 7			
Prostate		Inflammation	Suppurative, Moderate
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 40	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 670 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LEUKEMIA MONUC TGLs = 3  
Testes

Interstit Cell

Adenoma  
Aspermatogenesis  
Atrophy  
Degeneration  
Infiltration Cellular

Marked  
Marked  
Moderate  
Mononuclear CI, Moderate

Note: ASPERMATOGEN TGLs = 2  
Note: ATROPHY TGLs = 2

Perivascular

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 40

TRT#: 5

SEX: Male

DAY ON TEST: 630

DOSE: 0.13%

DISP: Moribund

HISTO:

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	Mammary Gland	Nose	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Gland	Cortex	Hypertrophy	Focal, Moderate
Epididymis		Depletion Cellular	Marked
Heart		Mesothelioma Malignant	
Kidney		Fibrosis	Multifocal, Mild
		Mesothelioma Malignant	
	Renal Tubule	Nephropathy	Chronic, Marked
		Pigmentation	Hemosiderin, Marked
Note: NEPHROPATHY TGLs = 8			
Liver		Inflammation	Granulomatous, Multifocal, Moderate
Note: INFLAMMATION TGLs = 1			
Lymph Node	Mandibular	Angiectasis	Marked
	Mesenteric	Hyperplasia	Lymphoid, Moderate
Note: ANGIECTASIS TGLs = 9			
Mesentery		Mesothelioma Malignant	
Pancreas		Mesothelioma Malignant	
Preputial Gland		Adenoma	
	Duct	Cyst	
Note: CYST TGLs = 3			
Note: ADENOMA TGLs = 3			
Prostate			
Note: MESOTHELIOMA MAL			
Seminal Vesicle		Mesothelioma Malignant	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 40	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 630 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Skeletal Muscle Note: MESOTHELIO MAL TGLs = 2	Abdominal	Mesothelioma Malignant	
Spleen		Hematopoietic Cell Proliferation Mesothelioma Malignant	Moderate
Stomach	Serosa	Mesothelioma Malignant	
Testes	Interstit Cell	Adenoma Aspermatogenesis Atrophy	Multiple Marked Moderate
Note: MESOTHELIO MAL TGLs = 7 Note: ADENOMA TGLs = 5 Note: ATROPHY TGLs = 6	Tunic	Mesothelioma Malignant	

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 41

TRT#: 1

SEX: Male

DAY ON TEST: 730

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Ear  
Intestine Large - Rectum  
Islets, Pancreatic  
Mammary Gland  
Pituitary Gland  
Spleen  
Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Salivary Glands  
Stomach - Forestomach

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Seminal Vesicle  
Stomach - Glandular

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Skin  
Trachea

MISSING

Thymus

OBSERVATIONS

Adrenal Gland  
  
Epididymis  
Heart  
Kidney  
Lung  
Preputial Gland  
    Note: CARCINOMA      TGLs = 1  
Prostate  
Testes  
  
    Note: ATROPHY      TGLs = 2  
    Note: ADENOMA      TGLs = 3  
Thyroid Gland

Medulla  
Medulla  
  
  
  
  
  
  
  
  
  
Interstit Cell  
  
  
  
C Cell

Hyperplasia  
Pheochromocytoma Benign  
Depletion Cellular  
Fibrosis  
Nephropathy  
Infiltration Cellular  
Carcinoma  
  
Inflammation  
Adenoma  
Aspermatogenesis  
Atrophy  
  
Hyperplasia

Focal, Moderate  
Multiple  
Marked  
Multifocal, Moderate  
Chronic, Moderate  
Histiocyte, Moderate  
  
Suppurative, Minimal  
Multiple  
Moderate  
Moderate  
  
Focal, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 41

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

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 - Mesenteric	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Prostate	Salivary Glands	Seminal Vesicle
Spleen	Stomach - Glandular	Trachea	Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Mild
Epididymis		Depletion Cellular	Marked
Heart	Atrium	Fibrosis	Multifocal, Moderate
Note: FIBROSIS TGLs = 9 [ Fibrosis TGLS = 9 ]		Thrombosis	Moderate
Kidney	Medulla	Congestion	Moderate
Note: NEPHROPATHY TGLs = 5		Nephropathy	Chronic, Moderate
Note: CONGESTION TGLs = 6			
Liver	Bile Duct	Hyperplasia	Moderate
Lung		Atelectasis	Moderate
Note: INFILTRAT CELL TGLs = 8		Infiltration Cellular	Histiocyte, Moderate
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
Note: HYPERPLASIA TGLs = 7	Mediastinal	Hyperplasia	Lymphoid, Moderate
Note: HYPERPLASIA TGLs = 2			
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Minimal
Preputial Gland	Duct	Cyst	
Skin	Subcut Tiss	Fibroma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 41	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: FIBROMA Stomach Testes	TGLs = 1 Forestomach Interstit Cell	Squamous Cell Papilloma Adenoma Aspermatogenesis Atrophy Degeneration	Multiple Moderate Marked Moderate
Note: ATROPHY Note: ASPERMATOGEN Thyroid Gland	TGLs = 3 TGLs = 3 C Cell	Hyperplasia	Focal, Mild

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 41

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	Esophagus	Eye	Intestine Large - Cecum
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	Pancreas
Pituitary Gland	Preputial Gland	Prostate	Salivary Glands
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Multifocal, Moderate
Blood		Leukemia Mononuclear	
Ear			
Note: EXTERNAL & MIDDLE EAR- NORMAL			
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 7			
Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Parathyroid Gland		Hyperplasia	Moderate
Seminal Vesicle		Atrophy	Moderate
Skin	Subcut Tiss	Fibroma	
		Fibrosis	Focal, Marked
		Hyperplasia	Focal, Marked
Note: FIBROSIS TGLs = 3			
Note: FIBROMA TGLs = 1			
Note: HYPERPLASIA TGLs = 2			
Testes	Interstit Cell	Adenoma	
		Aspermatogenesis	Mild
		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 41

**TRT#:** 5  
**DOSE:** 0.13%

**SEX:** Male  
**DISP:** Moribund

**DAY ON TEST:** 728  
**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ATROPHY      TGLs = 5  
Note: ADENOMA      TGLs = 6

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**PRIMARY CAUSE OF DEATH**      -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 42

TRT#: 1

SEX: Male

DAY ON TEST: 621

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

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
Pancreas	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Spleen
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Ear	Pinna	Schwannoma Malignant	
Note: SCHWANNOMA MAL TGLs = 1			
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Mild
Note: NEPHROPATHY TGLs = 5			
Liver		Vacuolization Cytoplasmic	Focal, Moderate
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
Skin	Subcut Tiss	Hemangiosarcoma	
		Keratoacanthoma	
Note: HEMANGIOSARC TGLs = 3			
Note: KERATOACANTHMA TGLs = 2			
Stomach	Forestomach	Edema	Marked
	Forestomach	Necrosis	Marked
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Moderate
		Atrophy	Marked
Note: ADENOMA TGLs = 4			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 42

TRT#: 3

SEX: Male

DAY ON TEST: 709

DOSE: 0.25%

DISP: Moribund

HISTO:

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

Lymph Node - Mesenteric

Nose

Salivary Glands

Seminal Vesicle

Stomach - Glandular

Thyroid Gland

Trachea

Urinary Bladder

MISSING

Islets, Pancreatic

Lymph Node - Mandibular

Pancreas

Thymus

OBSERVATIONS

Brain

Compression

Moderate

[ Compression TGLS = 6 ]

Epididymis

Depletion Cellular

Marked

Heart

Fibrosis

Multifocal, Moderate

Kidney

Nephropathy

Chronic, Marked

Note: NEPHROPATHY TGLs = 9

Liver

Degeneration

Cystic, Focal, Mild

Necrosis

Coagulative, Multifocal, Moderate

Lung

Alveolar Epith

Hyperplasia

Focal, Moderate

Lymph Node

Renal

Angiectasis

Moderate

Note: ANGIECTASIS TGLs = 1

Mammary Gland

Duct

Cyst

Note: CYST TGLs = 2

Parathyroid Gland

Hyperplasia

Mild

Pituitary Gland

Pars Distalis

Adenoma

Pars Distalis

Angiectasis

Marked

[ Adenoma TGLS = 5 ]

[ Angiectasis TGLS = 5 ]

Preputial Gland

Duct

Cyst

Note: CYST TGLs = 7

Prostate

Epithelium

Hyperplasia

Moderate

Inflammation

Suppurative, Mild

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 42

TRT#: 3

SEX: Male

DAY ON TEST: 709

DOSE: 0.25%

DISP: Moribund

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

Skin	Subcut Tiss	Neoplasm Nos	
Note: NEOPLASM NOS IS HIBERNOMA.			
Spleen		Hematopoietic Cell Proliferation	Moderate
Stomach	Forestomach	Edema	Marked
	Forestomach	Inflammation	Suppurative, Moderate
	Forestomach	Ulcer	Focal, Marked
Note: EDEMA TGLs = 10			
Note: INFLAMMATION TGLs = 10			
Note: ULCER TGLs = 10			
Testes		Aspermatogenesis	Marked
		Atrophy	Marked
		Degeneration	Moderate
	Perivascular	Infiltration Cellular	Mononuclear CI, Moderate
	Arteriole	Necrosis	Fibrinoid, Moderate
Note: ATROPHY TGLs = 8			
Note: ASPERMATOGEN TGLs = 8			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 42

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	Esophagus	Heart	Intestine Large - Cecum
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	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Ear			
Note: EXTERNAL & MIDDLE EAR- NORMAL			
Epididymis		Depletion Cellular	Marked
Intestine Large	Colon	Parasite Metazoan	
Kidney	Pelvis, Transit Epithe	Hyperplasia	Moderate
		Nephropathy	Chronic, Moderate
Preputial Gland		Adenoma	Multiple
	Duct	Cyst	
Note: CYST	TGLs = 1		
Note: ADENOMA	TGLs = 1,2		
Seminal Vesicle		Atrophy	Marked
Spleen		Congestion	Moderate
[ Congestion TGLS = 4 ]			
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
Note: ADENOMA	TGLs = 3		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 579

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

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
Lymph Node - Mesenteric	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Lymph Node - Mandibular

OBSERVATIONS

Brain		Compression	Moderate
Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY	TGLs = 2		
Liver		Vacuolization Cytoplasmic	Multifocal, Mild
Lung		Congestion	Mild
Note: CONGESTION	TGLs = 3		
Pituitary Gland		Adenoma	
	Pars Distalis	Angiectasis	Marked
Note: ANGIECTASIS	TGLs = 4,5		
Note: ADENOMA	TGLs = 4,5		
Prostate		Inflammation	Chronic, Mild
Testes		Adenoma	
	Interstit Cell	Aspermatogenesis	Moderate
		Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
Note: ADENOMA	TGLs = 1		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 43

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

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 - Mesenteric	Mammary Gland	Nose
Pancreas	Pituitary Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Mild
	Medulla	Pheochromocytoma Benign	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney	Renal Tubule	Hyperplasia	Focal, Mild
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY	TGLs = 5		
Liver	Bile Duct	Hyperplasia	Mild
Note: HYPERPLASIA	TGLs = 7		
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
Parathyroid Gland		Hyperplasia	Moderate
Prostate		Inflammation	Suppurative, Moderate
Spleen		Congestion	Moderate
Testes	Interstitial Cell	Adenoma	Multiple
		Aspermatogenesis	Marked
Note: ADENOMA	TGLs = 3		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 43

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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	Liver
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Parathyroid Gland	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Trachea	Urinary Bladder	

MISSING

Mammary Gland	Thymus
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OBSERVATIONS

Adrenal Gland	Cortex Medulla	Angiectasis Pheochromocytoma Benign	Marked
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Mild
	Atrium	Thrombosis	
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 3			
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
Preputial Gland		Fibrosis	Moderate
Prostate		Inflammation	Suppurative, Moderate
Seminal Vesicle		Atrophy	Moderate
Skin	Subcut Tiss	Fibroma	
Note: FIBROMA TGLs = 1			
Spleen		Congestion	Moderate
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
Note: ADENOMA TGLs = 2			
Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 44

TRT#: 1

SEX: Male

DAY ON TEST: 559

DOSE: UNTREATD CONTROL

DISP: Dead

HISTO:

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	Islets, Pancreatic
Lymph Node - Mandibular	Mesentery	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder		

MISSING

Mammary Gland	Thymus
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OBSERVATIONS

Bone Marrow		Hyperplasia	Reticulum Cell, Moderate
Heart		Fibrosis	Multifocal, Moderate
Intestine Small	Jejunum	Cystadenocarcinoma	
Note: CYSTADENOCARC	TGLs = 2		
Kidney		Nephropathy	Chronic, Minimal
Liver	Portal	Fibrosis	Mild
Lung		Infiltration Cellular	Histiocyte, Minimal
Lymph Node	Mesenteric	Angiectasis	Marked
	Mediastinal	Congestion	Marked
	Mesenteric	Inflammation	Chronic, Moderate
Note: ANGIECTASIS	TGLs = 1		
Note: CONGESTION	TGLs = 7		
[ Congestion TGLS = 1 ]			
Preputial Gland		Fibrosis	Moderate
Prostate		Inflammation	Suppurative, Moderate
Spleen		Hematopoietic Cell Proliferation	Mild
Testes	Interstit Cell	Adenoma	
Note: ADENOMA	TGLs = 4		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 44

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	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	Pancreas	Parathyroid Gland	Pituitary Gland
Preputial Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Ear			
Note: EXT & MIDDLE EAR-NORMAL			
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney	Renal Tubule	Adenoma	
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 5			
Liver	Bile Duct	Hyperplasia	Moderate
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Marked
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 1			
Prostate		Cyst	Multiple
Seminal Vesicle		Atrophy	Mild
Testes	Interstitial Cell	Adenoma	Multiple
		Aspermatogenesis	Moderate
		Atrophy	Moderate
Note: ATROPHY TGLs = 4			
Note: ASPERMATOGEN TGLs = 4			
Note: ADENOMA TGLs = 3			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 44

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Blood	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	Parathyroid Gland	Pituitary Gland	Preputial Gland
Salivary Glands	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Focal, Mild
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 4			
Liver	Bile Duct	Hyperplasia	Minimal
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA- ON SLIDE 8			
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 2			
Pancreas	Artery	Inflammation	Chronic, Moderate
Prostate		Inflammation	Suppurative, Moderate
Seminal Vesicle		Atrophy	Moderate
Skin		Fibrosis	Focal, Moderate
Note: FIBROSIS TGLs = 1			
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
Note: ADENOMA TGLs = 3			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 45

TRT#: 1

SEX: Male

DAY ON TEST: 659

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Note: VACUOLIZ CYTO TGLs = 7			
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Liver	Bile Duct	Degeneration	Cystic, Focal, Mild
		Hyperplasia	Multifocal, Mild
		Leukemia Mononuclear	
		Leukemia Mononuclear	
Lung			
Note: LEUKEMIA MONUC TGLs = 8,9			
Lymph Node	Mandibular	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3			
Pancreas	Acinus	Atrophy	Mild
Prostate		Inflammation	Suppurative, Marked
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6			
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 45	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 659
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA	TGLs = 4		Atrophy	Moderate
Note: ATROPHY	TGLs = 5			
Thyroid Gland		Follicle	Cyst	Multiple
Zymbal's Gland			Carcinoma	
Note: CARCINOMA	TGLs = 1,2			

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 45

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	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	Preputial Gland	Salivary Glands
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Trachea	Urinary Bladder		

OBSERVATIONS

Ear			
Note: EXT & MIDDLE EAR-NORMAL			
Epididymis		Degeneration	Marked
Eye	Retina	Degeneration	Mild
Note: DEGEN TGLs = 5			
Kidney	Pelvis, Transit Epithe	Hyperplasia	Moderate
Note: NEPHROPATHY TGLs = 7		Nephropathy	Chronic, Moderate
Liver		Cytologic Alterations	Focal, Mild
Note: DEVELOP MALFOR TGLs = 2		Developmental Malformation	
Pancreas	Acinus	Atrophy	Mild
Prostate		Inflammation	Suppurative, Mild
Seminal Vesicle		Atrophy	Mild
Skin		Basal Cell Carcinoma	
Note: BASAL CEL CARC TGLs = 1			
Testes	Interstit Cell	Adenoma	Multiple
Note: ADENOMA TGLs = 6			
Thyroid Gland		Ultimobranchial Cyst	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 45

TRT#: 5

SEX: Male

DAY ON TEST: 548

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Diffuse, Mild
Intestine Large	Colon	Parasite Metazoan	
Kidney		Nephropathy	Chronic, Mild
Note: NEPHROPATHY TGLs = 10			
Liver		Vacuolization Cytoplasmic	Focal, Mild
Note: VACUOLIZ CYTO TGLs = 11			
Lung		Carcinoma	Metastatic (Skin)
Note: CARCINOMA TGLs = 12			
Note: SKIN OF FOOT-PRIMARY SITE.			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Multiple
Skin		Carcinoma	
		Ulcer	Focal, Moderate
Note: ULCER TGLs = 1			
Note: CARCINOMA TGLs = 2			
Spleen			
Note: MASS III-NORMAL TISSUE			
Testes	Interstit Cell	Adenoma	Multiple
		Atrophy	Mild
Note: ADENOMA TGLs = 7			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 45

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 548

**DOSE:** 0.13%

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 46

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Gland Note: LEUKEMIA MONUC TGLs = 4	Cortex	Leukemia Mononuclear	
Blood		Leukemia Mononuclear Polychromasia	
Bone Marrow		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney Note: NEPHROPATHY TGLs = 5		Nephropathy	Chronic, Marked
Liver Note: LEUKEMIA MONUC TGLs = 6		Leukemia Mononuclear	
Lung Note: LEUKEMIA MONUC TGLs = 7		Leukemia Mononuclear	
Lymph Node  Note: LEUKEMIA MONUC TGLs = 1	Mediastinal Mesenteric Pancreatic	Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear	
Nose Spleen Note: LEUKEMIA MONUC TGLs = 3	Lumen	Inflammation Leukemia Mononuclear	Suppurative, Moderate
Testes	Interstit Cell	Adenoma Aspermatogenesis	Multiple Moderate

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 46

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** UNTREATD CONTROL

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ADENOMA      TGLs = 2  
Thymus

Atrophy

Marked

Leukemia Mononuclear

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 46

TRT#: 3

SEX: Male

DAY ON TEST: 636

DOSE: 0.25%

DISP: Moribund

HISTO:

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 - Mesenteric	Mammary Gland	Nose
Pancreas	Parathyroid Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Lymph Node - Mandibular	Prostate
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OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Blood		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Focal, Mild
Skin	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC	TGLs = 1		
Spleen		Fibrosis	Focal, Mild
		Leukemia Mononuclear	
Note: FIBROSIS	TGLs = 3		
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Moderate
		Atrophy	Moderate
Note: ADENOMA	TGLs = 2		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 46

TRT#: 5

SEX: Male

DAY ON TEST: 656

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	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
Pituitary Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Trachea	Urinary Bladder	

MISSING

Parathyroid Gland

OBSERVATIONS

Adrenal Gland	Medulla	Leukemia Mononuclear	
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Brain	Cerebellum	Degeneration	Moderate
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Mild
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
Note: LEUKEMIA MONUC	TGLs = 7,6		
Note: NEPHROPATHY	TGLs = 7,6		
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2		
Note: LEUKEMIA MONUC	TGLs = 1		
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 46	<b>TRT#:</b> 5 <b>DOSE:</b> 0.13%	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 656 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LEUKEMIA MONUC TGLs = 5 Testes	Interstitial Cell	Adenoma Aspermatogenesis Atrophy	Multiple Mild Marked
Note: ADENOMA TGLs = 3 Note: ATROPHY TGLs = 4 Thyroid Gland	C Cell Follicular Cel	Carcinoma Carcinoma Leukemia Mononuclear	
Note: CARCINOMA TGLs = 9 Note: CARCINOMA TGLs = 9			

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 47

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
	Atrium	Thrombosis	
[ Fibrosis TGLS = 8 ]			
Intestine Large	Cecum, Submucosa	Edema	Mild
Note: EDEMA TGLs = 1			
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 6			
Liver		Degeneration	Cystic, Focal, Mild
Lung	Interstitium	Infiltration Cellular	Histiocyte, Diffuse, Mild
Note: INFILTRAT CELL TGLs = 7			
Lymph Node	Mesenteric	Angiectasis	Moderate
Note: ANGIECTASIS TGLs = 5			
Preputial Gland		Fibrosis	Moderate
Note: FIBROSIS TGLs = 2			
Prostate		Inflammation	Chronic, Mild
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Moderate
		Atrophy	Moderate
Note: ADENOMA TGLs = 3			
Note: ATROPHY TGLs = 4			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:40

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

**Lab:** SRI

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**ANIMAL ID:** 47

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** UNTREATD CONTROL

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 47

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	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	Preputial Gland
Salivary Glands	Seminal Vesicle	Spleen	Stomach - Forestomach
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Mild
Ear			
Note: EXTERNAL & MIDDLE EAR - NORMAL			
Epididymis		Depletion Cellular	Marked
Eye	Antr Chamber	Inflammation	Suppurative, Moderate
Note: INFLAMMATION TGLs = 8			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 5			
Mammary Gland	Duct	Cyst	
Note: MAMMARY GL- CYST, DUCT ON SLIDE #2			
Note: CYST TGLs = 3			
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[ Adenoma TGLS = 7 ]			
[ Angiectasis TGLS = 7 ]			
Prostate		Inflammation	Suppurative, Mild
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 47	<b>TRT#:</b> 3 <b>DOSE:</b> 0.25%	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Stomach Testes	Glandular  Perivascular Arteriole	Mineralization Aspermatogenesis Atrophy Degeneration Infiltration Cellular Necrosis	Moderate Marked Marked Moderate Mononuclear CI, Moderate Fibrinoid, Moderate
Note: ATROPHY      TGLs = 4 Note: ASPERMATOGEN      TGLs = 4			
<b>PRIMARY CAUSE OF DEATH</b>	-		

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 47

TRT#: 5

SEX: Male

DAY ON TEST: 730

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Ear	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lymph Node - Mandibular	Mammary Gland	Pancreas
Pituitary Gland	Salivary Glands	Skin	Stomach - Forestomach
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland Note: PHEOCHROM BGN TGLs = 6	Medulla	Pheochromocytoma Benign	Multiple
Ear Note: EXTERNAL & MIDDLE EAR- NORMAL			
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney Note: NEPHROPATHY TGLs = 7		Nephropathy	Chronic, Marked
Liver Note: DEVELOP MALFOR TGLs = 1		Developmental Malformation	
Lung Note: CONGESTION TGLs = 2		Congestion Infiltration Cellular	Moderate Histiocyte, Mild
Lymph Node	Mesenteric	Hyperplasia	Lymphoid, Moderate
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
Parathyroid Gland		Hyperplasia	Marked
Preputial Gland	Duct	Cyst	
Prostate		Inflammation	Suppurative, Moderate
Seminal Vesicle		Atrophy	Moderate
Spleen		Congestion	Mild
Stomach	Glandular	Mineralization	Mild
Testes	Interstit Cell	Adenoma Aspermatogenesis	Multiple Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

---

**ANIMAL ID:** 47

**TRT#:** 5  
**DOSE:** 0.13%

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

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

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Atrophy

Marked

Note: ADENOMA      TGLs = 5  
Note: ATROPHY      TGLs = 4

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**PRIMARY CAUSE OF DEATH**      -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 48

TRT#: 1

SEX: Male

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Prostate	Salivary Glands	Seminal Vesicle
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Epididymis		Depletion Cellular	Moderate
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
Preputial Gland		Adenoma	
		Fibrosis	Moderate
Note: ADENOMA TGLs = 2			
Skin		Basal Cell Carcinoma	
Note: BASAL CEL CARC TGLs = 1			
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Moderate
Note: ADENOMA TGLs = 3			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 48

TRT#: 3

SEX: Male

DAY ON TEST: 635

DOSE: 0.25%

DISP: Moribund

HISTO:

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	Pancreas	Parathyroid Gland
Pituitary Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder		

MISSING

Thymus

OBSERVATIONS

Epididymis		Depletion Cellular	Marked
Kidney		Nephropathy	Chronic, Minimal
Liver	Bile Duct	Hyperplasia	Mild
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1			
Prostate		Inflammation	Suppurative, Mild
Skin	Subcut Tiss	Necrosis	Focal, Marked
Note: SKIN- SLIDE II NOT REMARKABLE			
Note: NECROSIS TGLs = 1			
Testes		Aspermatogenesis	Moderate
		Atrophy	Moderate
	Tunic	Mesothelioma Benign	
Note: ASPERMATOGEN TGLs = 3			
Note: ATROPHY TGLs = 3			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 48

TRT#: 5

SEX: Male

DAY ON TEST: 644

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Ear	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	Salivary Glands
Seminal Vesicle	Spleen	Stomach - Forestomach	Stomach - Glandular
Trachea	Urinary Bladder		

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Ear			
Note: EXTERNAL & MIDDLE EAR- NORMAL			
Epididymis		Depletion Cellular	Marked
Eye	Cornea	Infiltration Cellular	Lymphocyte, Mild
Note: INFILTRAT CELL TGLs = 12			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 9,7,8			
Liver		Congestion	Moderate
Note: CONGESTION TGLs = 10			
Lung	Alveolar Epith	Hyperplasia	Focal, Mild
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
	Mediastinal	Hyperplasia	Lymphoid, Moderate
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA TGLs = 3			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Carcinoma	

[ Carcinoma TGLS = 11 ]

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 48

TRT#: 5

SEX: Male

DAY ON TEST: 644

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

Preputial Gland		Adenoma	
	Duct	Cyst	
Note: ADENOMA	TGLs = 4		
Note: CYST	TGLs = 4		
Prostate		Inflammation	Suppurative, Moderate
Skin	Subcut Tiss	Fibroma	
		Keratoacanthoma	
Note: KERATOACANTHOMA	TGLs = 1		
Note: FIBROMA	TGLs = 2		
Testes	Interstit Cell	Adenoma	
		Aspermatogenesis	Mild
		Atrophy	Marked
	Interstit Cell	Hyperplasia	Moderate
	Perivascular	Infiltration Cellular	Mononuclear CI, Mild
	Arteriole	Necrosis	Fibrinoid, Mild
Note: ATROPHY	TGLs = 6		
Note: HYPERPLASIA	TGLs = 5		
Note: ADENOMA	TGLs = 5		
Thyroid Gland	C Cell	Hyperplasia	Multifocal, Marked
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 49

TRT#: 1

SEX: Male

DAY ON TEST: 387

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Mammary Gland  
Pituitary Gland  
Skin  
Testes  
Urinary Bladder

Bone  
Intestine Large - Colon  
Islets, Pancreatic  
Nose  
Preputial Gland  
Spleen  
Thymus

Brain  
Intestine Large - Rectum  
Lung  
Pancreas  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

Epididymis  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Seminal Vesicle  
Stomach - Glandular  
Trachea

**MISSING**

Esophagus                      Intestine Small - Duodenum                      Lymph Node - Mandibular

**OBSERVATIONS**

Adrenal Gland	Cortex	Hyperplasia	Focal, Mild
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Bone Marrow	Myeloid Cell	Hyperplasia	Mild
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Angiectasis	Mild
Note: ANGIOECTASIS	TGLs = 2		
Prostate		Inflammation	Suppurative, Marked
Note: INFLAMMATION	TGLs = 1		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 49

TRT#: 3

SEX: Male

DAY ON TEST: 670

DOSE: 0.25%

DISP: Moribund

HISTO:

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	Mammary Gland	Parathyroid Gland	Preputial Gland
Salivary Glands	Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular
Thymus	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Medulla	Angiectasis	Marked
	Medulla	Pheochromocytoma Benign	
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Note: ANGIECTASIS TGLs = 12			
Note: PHEOCHROM BGN TGLs = 11			
Blood		Leukemia Mononuclear	
Brain		Compression	
[ Compression TGLS = 6 ]			
Epididymis		Depletion Cellular	Marked
Eye	Retina	Degeneration	Mild
Note: DEGEN TGLs = 7			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Liver		Cytologic Alterations	Multifocal, Mild
		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Focal, Mild
Note: NECROSIS TGLs = 2			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Moderate
Note: NOSE- SLIDE #10			
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Angiectasis	Marked
	Pars Distalis	Carcinoma	
Note: ANGIECTASIS TGLs = 14			

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 49

TRT#: 3

SEX: Male

DAY ON TEST: 670

DOSE: 0.25%

DISP: Moribund

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: CARCINOMA	TGLs = 13		
Prostate		Inflammation	Suppurative, Moderate
Skin		Hyperplasia	Focal, Marked
Note: HYPERPLASIA	TGLs = 1		
Spleen		Leukemia Mononuclear	
Testes		Aspermatogenesis	Moderate
		Atrophy	Marked
		Degeneration	Moderate
Note: ASPERMATOGEN	TGLs = 10		
Note: ATROPHY	TGLs = 10		
Thyroid Gland	C Cell	Hyperplasia	Focal, Mild
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 49

TRT#: 5

SEX: Male

DAY ON TEST: 734

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
Blood		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Kidney		Nephropathy	Chronic, Moderate
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
	Mandibular	Hyperplasia	Lymphoid, Moderate
Nose	Nasolacrim Dct	Inflammation	Suppurative, Moderate
Preputial Gland	Duct	Cyst	
Prostate		Inflammation	Suppurative, Moderate
Spleen		Leukemia Mononuclear	
Testes	Interstitial Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Moderate

Note: ADENOMA TGLs = 3

Note: ATROPHY TGLs = 2

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 50

TRT#: 1

SEX: Male

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	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	Mammary Gland
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Pheochromocytoma Benign	
Bone Marrow		Leukemia Mononuclear	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4			
Preputial Gland	Duct	Cyst	
Note: CYST TGLs = 1			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3 ]			
Testes	Interstitial Cell	Adenoma	Multiple
		Aspermatogenesis	Moderate
		Atrophy	Marked
Note: ADENOMA TGLs = 2			
Thyroid Gland	Follicle	Cyst	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:40

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 50

TRT#: 3

SEX: Male

DAY ON TEST: 733

DOSE: 0.25%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Ear	Esophagus	Eye	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	Mammary Gland	Nose	Pancreas
Pituitary Gland	Preputial Gland	Salivary Glands	Spleen
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Ear			
Note: EXTERNAL & MIDDLE EAR NORMAL			
Epididymis		Depletion Cellular	Marked
Eye			
Note: EYE- NORMAL			
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 9			
Liver	Bile Duct	Hyperplasia	Mild
Note: HYPERPLASIA TGLs = 1			
Lung		Congestion	Mild
Note: CONGESTION TGLs = 11			
Parathyroid Gland		Hyperplasia	Moderate
Prostate		Cyst	
		Inflammation	Suppurative, Moderate
Note: PROSTATE- CYSTIC DUCTS			
Seminal Vesicle		Dilatation	Moderate
Note: DILATATION TGLs = 7			
Skin	Subcut Tiss	Fibroma	
Note: FIBROMA TGLs = 3			
Stomach	Forestomach	Mineralization	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:40  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 50

**TRT#:** 3  
**DOSE:** 0.25%

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

**DAY ON TEST:** 733  
**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

Testes	Interstit Cell	Adenoma Aspermatogenesis Atrophy Degeneration	Marked Marked Moderate
	Perivascular	Infiltration Cellular	Mononuclear CI, Moderate
Note: ADENOMA	TGLs = 6		
Note: ATROPHY	TGLs = 6		
Note: ASPERMATOGEN	TGLs = 6		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 50

TRT#: 5

SEX: Male

DAY ON TEST: 671

DOSE: 0.13%

DISP: Moribund

HISTO:

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
Liver	Lung	Lymph Node - Mandibular	Mammary Gland
Nose	Pancreas	Salivary Glands	Skin
Stomach - Forestomach	Trachea	Urinary Bladder	

MISSING

Lymph Node - Mesenteric	Thymus
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OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Epididymis		Depletion Cellular	Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney	Renal Tubule	Hyperplasia	Focal, Mild
		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 3			
Mesentery	Artery	Inflammation	Chronic, Marked
Note: INFLAMMATION TGLs = 4			
Parathyroid Gland		Hyperplasia	Marked
Pituitary Gland	Pars Distalis	Adenoma	
Preputial Gland	Duct	Cyst	
Prostate		Inflammation	Suppurative, Moderate
Seminal Vesicle		Atrophy	Moderate
Spleen		Fibrosis	Focal, Marked
Note: FIBROSIS TGLs = 2			
Stomach	Glandular	Mineralization	Mild
Testes	Interstit Cell	Adenoma	Multiple
		Aspermatogenesis	Mild
		Atrophy	Marked
	Perivascular	Infiltration Cellular	Mononuclear Cl, Mild
	Arteriole	Necrosis	Fibrinoid, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 50

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 671

**DOSE:** 0.13%

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ADENOMA TGLs = 1

Thyroid Gland

C Cell

Carcinoma

Note: CARCINOMA TGLs = 5

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 1	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 735
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Ear	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	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

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**OBSERVATIONS**

Adrenal Gland	Cortex	Hyperplasia	Focal, Mild
	Cortex	Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2		
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: FIBROADENOMA	TGLs = 1		
Note: CYST	TGLs = 3		
Nose	Lumen	Foreign Body	Moderate
Pituitary Gland	Pars Distalis	Cyst	Multiple
Spleen		Leukemia Mononuclear	

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 1

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

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	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Eye		Cataract	Moderate
	Retina	Degeneration	Marked
Note: CATARACT	TGLs = 7		
Note: DEGEN	TGLs = 7,8		
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY	TGLs = 4		
Liver		Basophilic Focus	Multiple, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: FIBROADENOMA	TGLs = 1		
Note: CYST	TGLs = 1,9		
Mesentery	Fat	Necrosis	Focal, Mild
Note: NECROSIS	TGLs = 2,3		
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
[ Angiectasis TGLs = 5,6 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 1	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Dead	<b>DAY ON TEST:</b> 435 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Heart	Intestine Large - Cecum
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland	Trachea	Urinary Bladder	Uterus

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**MISSING**

Clitoral Gland	Intestine Large - Colon	Thymus
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**OBSERVATIONS**

Liver	Bile Duct	Hyperplasia Leukemia Mononuclear Vacuolization Cytoplasmic	Moderate  Diffuse, Moderate
Lung		Leukemia Mononuclear	
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
Ovary		Leukemia Mononuclear	
Spleen		Leukemia Mononuclear	

[ Leukemia Mononuclear TGLS = 10 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 735
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

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	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Parathyroid Gland	Salivary Glands	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Trachea
Urinary Bladder	Uterus		

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**OBSERVATIONS**

Adrenal Gland	Cortex	Hyperplasia	Focal, Mild
Bone Marrow		Hyperplasia	Reticulum Cell, Moderate
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Infiltration Cellular	Lymphocyte, Multifocal, Moderate
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 2			
Ovary		Cyst	
Note: CYST TGLs = 3			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
Note: ANGIECTASIS TGLs = 4 [ Angiectasis TGLS = 4 ]			
Skin	Subcut Tiss	Fibroma	
Note: FIBROMA TGLs = 1			
Thyroid Gland	C Cell	Hyperplasia	Multifocal, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01  
Test Type: CHRONIC  
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: Nitrofurantoin  
CAS Number: 67-20-9

Date Report Requested: 10/23/2014  
Time Report Requested: 13:53:41  
First Dose M/F: NA / NA  
Lab: SRI

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<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 4 <b>DOSE:</b> 0.13%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b>
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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	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	Trachea	Urinary Bladder	Uterus

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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	Multiple, Mild
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1			
Note: (I) SUBCUTIS- IS MAMMARY GLAND			
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Moderate
Note: HYPERPLASIA TGLs = 2			

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 734 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Gland - Cortex	Bone Marrow	Brain	Ear
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	Thymus
Tissue NOS	Trachea	Urinary Bladder	

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**OBSERVATIONS**

Adrenal Gland	Medulla	Hyperplasia	Focal, Mild
Bone Note: HYPEROSTOSIS TGLs = 6	Cranium	Hyperostosis	Mild
Clitoral Gland Note: INFLAMMATION TGLs = 1		Inflammation	Suppurative, Moderate
Ear Note: EXT&MIDDLE EAR-NORMAL			
Eye Note: CATARACT TGLs = 8 Note: DEGEN TGLs = 8	Retina	Cataract Degeneration	Marked Moderate
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Liver Note: DEVELOP MALFOR TGLs = 5		Developmental Malformation	
Mammary Gland Note: HYPERPLASIA TGLs = 3 Note: FIBROADENOMA TGLs = 3 Note: CYST TGLs = 9	Duct	Cyst Fibroadenoma Hyperplasia	Cystic, Marked
Mesentery	Fat	Necrosis	Focal, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 734 <b>HISTO:</b>
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Note: NECROSIS Pituitary Gland	TGLs = 4	Pars Distalis Pars Distalis Pars Distalis	Adenoma Angiectasis Cyst Moderate
Note: ADENOMA Note: ANGIECTASIS Skin	TGLs = 7 TGLs = 7	Subcut Tiss	Fibroma
Note: FIBROMA Thyroid Gland Uterus	TGLs = 2	C Cell Endometrium	Hyperplasia Inflammation Focal, Mild Suppurative, Mild

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 3

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

**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	Liver	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**MISSING**

Clitoral Gland

**OBSERVATIONS**

Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Lung		Inflammation	Chronic, Mild
Note: INFLAMMATION	TGLs = 2		
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA	TGLs = 1		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 3

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

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	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**

Heart		Fibrosis	Multifocal, Moderate
Kidney	Renal Tubule	Hyperplasia	Focal, Mild
		Nephropathy	Chronic, Moderate
Liver		Inflammation	Granulomatous, Focal, Mild
Lung		Infiltration Cellular	Histiocyte, Focal, Mild
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Marked
Note: FIBROADENOMA	TGLs = 1,2		
Note: HYPERPLASIA	TGLs = 1,2		
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
Uterus		Polyp Stromal	
Note: POLYP STROMAL	TGLs = 3		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 734 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Ear	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	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Ear			
Note: EXT&MIDDLE EAR-NORMAL			
Eye		Cataract	Marked
	Retina	Degeneration	Moderate
	Lens	Mineralization	Moderate
Note: DEGEN TGLs = 3			
Note: CATARACT TGLs = 3			
Note: MINERALIZATION TGLs = 3			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Moderate
Lung		Infiltration Cellular	Histiocyte, Focal, Minimal
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: CYST TGLs = 1			
Note: HYPERPLASIA TGLs = 4			
Note: FIBROADENOMA TGLs = 1			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[ Adenoma TGLS = 2 ]			
[ Angiectasis TGLS = 2 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 734 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Uterus	Endometrium	Hyperplasia Polyp Stromal	Cystic, Marked
Note: HYPERPLASIA TGLs = 5 Note: POLYP STROMAL TGLs = 5			
<b>PRIMARY CAUSE OF DEATH</b>	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 2 <b>DOSE:</b> UNTREATD CONTROL	<b>SEX:</b> Female <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 649 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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 - Mandibular	Lymph Node - Mesenteric	Nose	Ovary
Parathyroid Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Adrenal Gland	Cortex Medulla	Hyperplasia Leukemia Mononuclear	Focal, Moderate
Bone Marrow		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 8			
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 9			
Mammary Gland	Duct	Cyst Fibroadenoma Hyperplasia	Lobular, Moderate
Note: CYST TGLs = 6			
Note: FIBROADENOMA TGLs = 1,2			
Pancreas	Acinus Duct	Atrophy Cyst	Multifocal, Moderate Moderate
Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Angiectasis	Moderate
Note: ADENOMA TGLs = 10			
Note: ANGIECTASIS TGLs = 10			
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 7			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 4 <b>DOSE:</b> 0.13%	<b>SEX:</b> Female <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 394 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Esophagus	Heart	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	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Thymus	Thyroid Gland	Trachea	Uterus

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**MISSING**

Clitoral Gland

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**OBSERVATIONS**

Bone Marrow		Hyperplasia	Reticulum Cell, Moderate
Stomach	Glandular	Necrosis	Focal, Mild
Urinary Bladder	Mucosa	Hyperplasia	Diffuse, Mild

Note: HYPERPLASIA TGLs = 1

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 564 <b>HISTO:</b>
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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	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
Urinary Bladder	Uterus		

MISSING

Thymus

OBSERVATIONS

Kidney		Nephropathy	Chronic, Mild
Lung		Infiltration Cellular	Histiocyte, Focal, Minimal
Mammary Gland		Fibroadenoma	
		Hyperplasia	Lobular, Moderate
		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 3 ]			
[ Hyperplasia TGLS = 1 ]			
Pituitary Gland	Pars Distalis	Carcinoma	
Note: CARCINOMA TGLs = 2			
Thyroid Gland	C Cell	Hyperplasia	Focal, Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**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	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spinal Cord
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

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**OBSERVATIONS**

Clitoral Gland	Duct	Cyst	
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1			
Note: CYST TGLs = 1			
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
Note: ANGIECTASIS TGLs = 2			

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 4 <b>DOSE:</b> 0.13%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Ear	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	Trachea	Urinary Bladder	

MISSING

Thymus

OBSERVATIONS

Ear			
Note: EXTERNAL & MIDDLE EAR NORMAL			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Minimal
Liver		Focal Cellular Change	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Granulomatous, Focal, Mild
Note: INFLAMMATION TGLs = 6			
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: CYST TGLs = 7			
Note: FIBROADENOMA TGLs = 1			
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 2			
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
[ Adenoma TGLS = 4 ]			
[ Angiectasis TGLS = 4 ]			
Spleen		Hematopoietic Cell Proliferation	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 4 <b>DOSE:</b> 0.13%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Note: HEMA CELL PROL TGLs = 3 Thyroid Gland Uterus Note: POLYP STROMAL TGLs = 5	C Cell	Hemorrhage Adenoma Polyp Stromal	Moderate Multiple
<b>PRIMARY CAUSE OF DEATH</b>	-		

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 5

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Blood	Bone
Brain	Ear	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	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Bone Marrow		Leukemia Mononuclear Myelofibrosis	Moderate
Clitoral Gland	Duct	Adenoma Cyst	
Note: CYST TGLs = 2			
Ear			
Note: EXT&MIDDLE EAR-NORMAL			
Eye	Retina	Degeneration	Moderate
Note: DEGEN TGLs = 5			
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 8			
Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Mild
Note: LEUKEMIA MONUC TGLs = 10			
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 11			
Lymph Node	Renal, Sinus Iliac	Ectasia Hyperplasia	Moderate Lymphoid, Moderate
Note: HYPERPLASIA TGLs = 4			
Note: ECTASIA TGLs = 3			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 734 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Mammary Gland	Duct	Adenocarcinoma Cyst Hyperplasia	Lobular, Mild
Note: CYST TGLs = 9 [ Hyperplasia TGLS = 1 ]			
Pancreas Spleen	Acinus	Adenoma Fibrosis Leukemia Mononuclear	Moderate
Note: LEUKEMIA MONUC TGLs = 7			
Uterus	Cervix	Cyst Polyp Stromal	
Note: CYST CONTENT-DESQUAMATED EPITH.CELLS&KERATIN Note: CYST TGLs = 6			

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 568
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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ORGAN AND ACCOUNTABLE SITE STATUS

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**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	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

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**MISSING**

Adrenal Gland - Medulla	Clitoral Gland
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**OBSERVATIONS**

Brain		Compression	Marked
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Vacuolization Cytoplasmic	Multifocal, Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
Note: ANGIECTASIS TGLs = 7 [ Adenoma TGLS = 6 ]			
Stomach	Forestomach	Edema	Marked
	Forestomach	Ulcer	Focal, Moderate
Note: EDEMA TGLs = 5			
Note: ULCER TGLs = 5			

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 4 <b>DOSE:</b> 0.13%	<b>SEX:</b> Female <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 554 <b>HISTO:</b>
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Clitoral Gland	Ear
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	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Gland	Cortex Medulla	Leukemia Mononuclear Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6		
Blood		Leukemia Mononuclear	
Bone Marrow		Myelofibrosis	Moderate
Heart		Leukemia Mononuclear	
Kidney	Renal Tubule	Nephropathy	Chronic, Mild
	Bile Duct	Pigmentation	Hemosiderin, Moderate
Liver		Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Diffuse, Marked
Note: VACUOLIZ CYTO	TGLs = 8		
Note: LEUKEMIA MONUC	TGLs = 9		
Lung	Alveolar Epith	Hyperplasia	Focal, Moderate
		Infiltration Cellular	Histiocyte, Focal, Moderate
	Bronchiole	Inflammation	Chronic Active, Moderate
		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 10		
[ Inflammation TGLS = 10 ]			
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 7		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 4 <b>DOSE:</b> 0.13%	<b>SEX:</b> Female <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 554 <b>HISTO:</b>
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Mammary Gland		Hyperplasia	Cystic, Moderate
Mesentery	Fat	Necrosis	Focal, Marked
Note: NECROSIS	TGLs = 1		
Pancreas	Acinus	Atrophy	Focal, Moderate
		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 12 ]			
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5		

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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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	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Clitoral Gland		Adenoma	
	Duct	Cyst	
Note: CYST TGLs = 3			
Note: ADENOMA TGLs = 3			
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
Note: CATARACT TGLs = 5			
Note: DEGEN TGLs = 5			
Heart		Fibrosis	Multifocal, Moderate
Kidney	Renal Tubule	Degeneration	Moderate
		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	Multiple, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: CYST TGLs = 2,3,6		Hyperplasia	Lobular, Mild
Note: FIBROADENOMA TGLs = 2			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[ Adenoma TGLS = 4 ]			
[ Angiectasis TGLS = 4 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Skin Note: RECUTS MADE-TISSUE DIFFICULT TO SECTION. Note: HYPERKERATOSIS TGLs = 1	Hyperkeratosis	Focal, Moderate
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PRIMARY CAUSE OF DEATH	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 7

TRT#: 2

SEX: Female

DAY ON TEST: 620

DOSE: UNTREATD CONTROL

DISP: Dead

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	Lymph Node - Mesenteric	Ovary	Parathyroid Gland
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Adrenal Gland - Medulla

OBSERVATIONS

Adrenal Gland Note: VACUOLIZ CYTO TGLs = 12	Cortex	Vacuolization Cytoplasmic	Diffuse, Marked
Heart		Fibrosis	Multifocal, Mild
Kidney Note: SARC STROMAL TGLs = 11		Sarcoma Stromal	Metastatic (Uterus)
Liver Note: NECROSIS TGLs = 4 Note: SARC STROMAL TGLs = 4		Necrosis Sarcoma Stromal	Coagulative, Focal, Moderate Metastatic (Uterus)
Lung Note: SARC STROMAL TGLs = 13		Sarcoma Stromal	Metastatic (Uterus)
Lymph Node Note: CONGESTION TGLs = 14	Mediastinal	Congestion	Marked
Mammary Gland Note: HYPERPLASIA TGLs = 10		Hyperplasia	Cystic, Moderate
Mesentery Note: SARC STROMAL TGLs = 2,5		Sarcoma Stromal	Metastatic (Uterus)
Nose	Lumen	Inflammation	Suppurative, Moderate
Pancreas Note: SARC STROMAL TGLs = 8		Sarcoma Stromal	Metastatic (Uterus)
Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 2 <b>DOSE:</b> UNTREATD CONTROL	<b>SEX:</b> Female <b>DISP:</b> Dead	<b>DAY ON TEST:</b> 620 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
[ Adenoma TGLS = 7 ] [ Angiectasis TGLS = 6 ]	Pars Distalis	Angiectasis	Mild
Skeletal Muscle Note: SARC STROMAL TGLs = 3	Diaphragm	Sarcoma Stromal	Metastatic (Uterus)
Spleen Note: SARC STROMAL TGLs = 1		Sarcoma Stromal	Metastatic (Uterus)
Uterus Note: SARC STROMAL TGLs = 9		Sarcoma Stromal	
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 4 <b>DOSE:</b> 0.13%	<b>SEX:</b> Female <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 646 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**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 - Mesenteric	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

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**OBSERVATIONS**

Adrenal Gland	Cortex	Degeneration	Fatty, Focal, Mild
Blood		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Minimal
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC			TGLs = 3
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC			TGLs = 7
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland	Duct	Cyst	
Note: CYST			TGLs = 1
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Cyst	
[ Angiectasis TGLS = 5 ]			
[ Cyst TGLS = 5 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6 ]			

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Dead	<b>DAY ON TEST:</b> 423 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Heart	Intestine Large - Cecum
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Jejunum	Islets, Pancreatic
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder		

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**MISSING**

Clitoral Gland	Intestine Large - Colon	Intestine Small - Ileum	Pituitary Gland
Thymus			

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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Liver		Vacuolization Cytoplasmic	Diffuse, Moderate
Lung	Interstitialium	Edema	Mild
Spleen		Hematopoietic Cell Proliferation	Mild
Uterus	Endometrium	Sarcoma Stromal	

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 8

TRT#: 2

SEX: Female

DAY ON TEST: 700

DOSE: UNTREATD CONTROL

DISP: Moribund

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	Kidney	Liver
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

Heart		Fibrosis	Multifocal, Moderate
Lung		Infiltration Cellular	Histiocyte, Focal, Mild
Note: INFILTRAT CELL TGLs = 5			
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
		Hyperplasia	Lobular, Mild
Note: FIBROADENOMA TGLs = 1,2,3			
Note: CYST TGLs = 6			
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Carcinoma	
	Pars Distalis	Cyst	Multiple
Note: CARCINOMA TGLs = 4			
[ Angiectasis TGLs = 4 ]			
[ Cyst TGLs = 4 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 4 <b>DOSE:</b> 0.13%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b>
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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	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Ovary	Pancreas	Pituitary Gland
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Trachea	Urinary Bladder	

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**OBSERVATIONS**

Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY	TGLs = 5		
Liver		Basophilic Focus	Multiple, Mild
Lung		Congestion	Mild
Note: CONGESTION	TGLs = 6		
Mammary Gland	Duct	Cyst	
Note: FIBROADENOMA	TGLs = 1,2,3	Fibroadenoma	Multiple
Note: CYST	TGLs = 8		
Parathyroid Gland		Hyperplasia	Moderate
Spleen		Congestion	Moderate
Thyroid Gland	C Cell	Adenoma	Multiple
Uterus	Endometrium	Hydrometra	Moderate
Note: HYDROMETRA	TGLs = 4,7	Hyperplasia	Cystic, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 8

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

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	Liver	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		

MISSING

Thymus

OBSERVATIONS

Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
Note: DEGEN	TGLs = 2		
Note: CATARACT	TGLs = 2		
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Moderate
Mammary Gland	Duct	Cyst	
Note: CYST	TGLs = 3		
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS	TGLs = 1		
Thyroid Gland	C Cell	Hyperplasia	Multifocal, Mild
Uterus		Polyp Stromal	
Note: POLYP STROMAL	TGLs = 4		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 9

TRT#: 2

SEX: Female

DAY ON TEST: 727

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Brain	Clitoral Gland
Ear	Esophagus	Intestine Large - Cecum	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		

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Blood		Anemia	
Note: ANEMIA TGLs = 6			
Bone Marrow		Leukemia Mononuclear	
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Colon	Parasite Metazoan	Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4			
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
		Hyperplasia	Lobular, Moderate
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 1			
Note: HYPERPLASIA TGLs = 1			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 727
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: CYST	TGLs = 2		
Mesentery			Leukemia Mononuclear
Pituitary Gland		Pars Distalis	Cyst
			Leukemia Mononuclear
Note: LEUKEMIA MONUC	TGLs = 5		
[ Cyst TGLS = 5 ]			
Spleen			Leukemia Mononuclear
Note: LEUKEMIA MONUC	TGLs = 3		
Urinary Bladder			Leukemia Mononuclear
Uterus			Leukemia Mononuclear

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 9

TRT#: 4

DOSE: 0.13%

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	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
Nose	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Blood		Leukemia Mononuclear	
Bone	Cranium	Hyperostosis	Mild
Note: HYPEROSTOSIS	TGLs = 4		
Bone Marrow		Leukemia Mononuclear	
Heart		Fibrosis	Multifocal, Mild
Kidney	Renal Tubule	Nephropathy	Chronic, Mild
		Pigmentation	Hemosiderin, Moderate
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 2		
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3		
Lymph Node	Mandibular	Infiltration Cellular	Plasma Cell, Moderate
	Mesenteric	Leukemia Mononuclear	
Mammary Gland	Duct	Cyst	
Mesentery		Hemorrhage	Focal, Moderate
Note: HEMORRHAGE	TGLs = 1		
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7 ]			
Uterus	Endometrium	Hyperplasia	Cystic, Moderate
		Polyp Stromal	
Note: HYPERPLASIA	TGLs = 6		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 4 <b>DOSE:</b> 0.13%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

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<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Dead	<b>DAY ON TEST:</b> 567 <b>HISTO:</b>
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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	Lymph Node - Mandibular	Lymph Node - Mesenteric
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

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**OBSERVATIONS**

Heart		Fibrosis Inflammation	Multifocal, Moderate Multifocal, Mild
Kidney	Cortex	Fibrosis Nephropathy	Focal, Moderate Chronic, Mild
Note: NEPHROPATHY TGLs = 5 Note: FIBROSIS TGLs = 5			
Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Mild
Note: LEUKEMIA MONUC TGLs = 7			
Lung	Interstitialium	Edema Infiltration Cellular Leukemia Mononuclear	Mild Histiocyte, Focal, Mild
Note: EDEMA TGLs = 8 Note: INFILTRAT CELL TGLs = 8 Note: LEUKEMIA MONUC TGLs = 8			
Mammary Gland		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 3			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 9			

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 10

TRT#: 2

SEX: Female

DAY ON TEST: 691

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Ear	Esophagus
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Liver	Lung	Nose	Ovary
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Kidney		Nephropathy	Chronic, Mild
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
	Mediastinal	Hyperplasia	Lymphoid, Moderate
	Mesenteric	Hyperplasia	Lymphoid, Moderate
Note: HYPERPLASIA TGLs = 5 [ Hyperplasia TGLS = 4 ]			
Mammary Gland	Duct	Cyst Fibroadenoma	
Note: CYST TGLs = 3 Note: FIBROADENOMA TGLs = 1			
Spleen		Hematopoietic Cell Proliferation	Moderate
Zymbal's Gland		Carcinoma	
Note: CARCINOMA TGLs = 2			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 10

TRT#: 4

SEX: Female

DAY ON TEST: 700

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Focal, Mild
	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Minimal
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4			
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 1			
Note: FIBROADENOMA TGLs = 1			
Note: CYST TGLs = 6			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Mild
[ Adenoma TGLS = 5 ]			
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 10	<b>TRT#:</b> 4 <b>DOSE:</b> 0.13%	<b>SEX:</b> Female <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 700 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Uterus	Endometrium Endometrium	Hyperplasia Inflammation Polyp Stromal	Cystic, Mild Suppurative, Mild
Note: POLYP STROMAL	TGLs = 2		
Note: INFLAMMATION	TGLs = 2		
<b>PRIMARY CAUSE OF DEATH</b>	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 10

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Ear	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	Trachea	Urinary Bladder
Uterus			

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Angiectasis	Moderate
	Cortex	Hyperplasia	Focal, Mild
Ear			
Note: EXT&MIDDLE EAR-NORMAL			
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
Note: CATARACT TGLs = 7			
Note: DEGEN TGLs = 7			
Harderian Gland		Fibrosis	Moderate
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Developmental Malformation	
Note: DEVELOP MALFOR TGLs = 4			
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
Note: CYST TGLs = 3			
Note: FIBROADENOMA TGLs = 1,2			
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 5			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 10

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 734

**DOSE:** 0.06%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Pituitary Gland

Pars Distalis

Angiectasis

Mild

Pars Distalis

Hyperplasia

Focal, Moderate

Skin

Subcut Tiss

Inflammation

Suppurative, Marked

Note: INFLAMMATION TGLs = 3

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 11

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach  
Trachea

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Salivary Glands  
Stomach - Glandular  
Urinary Bladder

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Skin  
Thymus  
Uterus

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Thyroid Gland

OBSERVATIONS

Clitoral Gland  
Heart  
Kidney  
Mammary Gland  
    Note: CYST      TGLs = 3  
Mesentery  
    Note: NECROSIS      TGLs = 1  
Pituitary Gland  
  
    [ Adenoma TGLS = 2 ]  
    [ Angiectasis TGLS = 2 ]

Duct  
  
Duct  
  
Fat  
  
Pars Distalis  
Pars Distalis

Cyst  
Fibrosis  
Nephropathy  
Cyst  
  
Necrosis  
  
Adenoma  
Angiectasis

Multifocal, Moderate  
Chronic, Marked  
  
Focal, Moderate  
  
Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 11

TRT#: 4

SEX: Female

DAY ON TEST: 598

DOSE: 0.13%

DISP: Moribund

HISTO:

**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

Liver

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**

Kidney

Nephropathy

Chronic, Mild

Mammary Gland

Duct

Cyst

Note: CYST TGLs = 2

Pituitary Gland

Pars Distalis

Adenoma

Note: ADENOMA TGLs = 3

Pars Distalis

Angiectasis

Moderate

Note: ANGIECTASIS TGLs = 4

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 11

TRT#: 6

DOSE: 0.06%

SEX: Female

DISP: Moribund

DAY ON TEST: 728

HISTO:

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 - Mesenteric
Nose	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	Urinary Bladder
Uterus			

MISSING

Lymph Node - Mandibular

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Focal, Mild
Eye	Retina	Cataract Degeneration	Moderate Moderate
Note: DEGEN TGLs = 5			
Note: CATARACT TGLs = 5			
Harderian Gland		Fibrosis	Marked
Heart		Fibrosis	Multifocal, Mild
Kidney	Renal Tubule	Degeneration Nephropathy	Moderate Chronic, Mild
Mammary Gland	Duct	Cyst Fibroadenoma Hyperplasia	Multiple Cystic, Moderate
Note: FIBROADENOMA TGLs = 1,2			
Note: CYST TGLs = 6			
Note: HYPERPLASIA TGLs = 2			
Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Angiectasis	Marked
[ Adenoma TGLS = 3 ]			
[ Angiectasis TGLS = 3 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 11

**TRT#:** 6  
**DOSE:** 0.06%

**SEX:** Female  
**DISP:** Moribund

**DAY ON TEST:** 728  
**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Thyroid Gland	C Cell	Adenoma
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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 12

TRT#: 2

SEX: Female

DAY ON TEST: 671

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

**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
Stomach - Glandular	Trachea	Urinary Bladder	Uterus

**MISSING**

Thymus

**OBSERVATIONS**

Brain		Degeneration	Multifocal, Moderate
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Mild
Liver		Inflammation	Granulomatous, Focal, Mild
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 1			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
Note: ADENOMA TGLs = 2 [ Adenoma TGLS = 2 ]			
Thyroid Gland	Follicle	Cyst	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 12

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Salivary Glands  
Stomach - Glandular  
Uterus

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Lung  
Ovary  
Skin  
Thymus

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Trachea

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach  
Urinary Bladder

OBSERVATIONS

Clitoral Gland  
Heart  
Kidney  
Liver  
Mammary Gland

Duct  
  
  
  
Duct

Cyst  
Fibrosis  
Nephropathy  
Basophilic Focus  
Cyst  
Fibroadenoma  
Hyperplasia

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

Note: CYST TGLs = 4,8  
Note: FIBROADENOMA TGLs = 1,2,3  
Note: HYPERPLASIA TGLs = 1,3

Mesentery  
Note: NECROSIS TGLs = 5

Fat

Necrosis

Focal, Moderate

Pituitary Gland  
Pars Distalis  
Pars Distalis

Adenoma  
Angiectasis

Moderate

[ Adenoma TGLS = 7 ]  
[ Angiectasis TGLS = 7 ]

Thyroid Gland  
Note: CARCINOMA TGLs = 6

C Cell

Carcinoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 12

TRT#: 6

DOSE: 0.06%

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Nose  
Pituitary Gland  
Thymus

Bone Marrow  
Intestine Large - Rectum  
Islets, Pancreatic  
Ovary  
Salivary Glands  
Trachea

Brain  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
Pancreas  
Stomach - Forestomach  
Urinary Bladder

Esophagus  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Glandular

OBSERVATIONS

Adrenal Gland  
Bone  
Note: HYPEROSTOSIS TGLs = 6

Cortex  
Cranium

Hemorrhage  
Hyperostosis

Focal, Mild

Clitoral Gland  
Note: CARCINOMA TGLs = 2

Carcinoma

Heart  
Intestine Large  
Kidney

Colon

Fibrosis  
Parasite Metazoan  
Nephropathy  
Pigmentation

Multifocal, Mild

Liver

Bile Duct

Hyperplasia  
Leukemia Mononuclear  
Leukemia Mononuclear  
Cyst

Chronic, Minimal  
Hemosiderin, Moderate  
Mild

Lung  
Mammary Gland  
Note: CYST TGLs = 2

Duct

Hyperkeratosis  
Hyperplasia

Focal, Moderate  
Focal, Moderate

Skin  
Note: HYPERKERATOSIS TGLs = 1  
Note: HYPERPLASIA TGLs = 1

Spleen  
Note: LEUKEMIA MONUC TGLs = 4,5

Leukemia Mononuclear

Thyroid Gland  
Uterus

C Cell  
Cervix

Hyperplasia  
Abscess

Focal, Mild  
Moderate

Note: ABSCESS TGLs = 3

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 12

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 0.06%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 13

TRT#: 2

SEX: Female

DAY ON TEST: 481

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

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 - Mandibular	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach - Forestomach	Thymus	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Adrenal Gland Note: VACUOLIZ CYTO TGLs = 8	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
Liver Note: VACUOLIZ CYTO TGLs = 9 Note: LEUKEMIA MONUC TGLs = 9		Nephropathy	Chronic, Minimal
Lung Note: LEUKEMIA MONUC TGLs = 10		Leukemia Mononuclear	
Lymph Node	Mesenteric	Leukemia Mononuclear	
Mammary Gland Note: HYPERPLASIA TGLs = 4		Hyperplasia	Cystic, Minimal
Pituitary Gland	Pars Distalis	Cyst	
Spleen Note: LEUKEMIA MONUC TGLs = 6	Pars Distalis	Hyperplasia	Focal, Moderate
Stomach	Glandular	Leukemia Mononuclear	
Thyroid Gland Note: CARCINOMA TGLs = 13	C Cell	Erosion	Mild
		Carcinoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 13

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 481

**DOSE:** UNTREATD CONTROL

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 13

TRT#: 4

DOSE: 0.13%

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO:

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	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Adrenal Gland	Cortex	Degeneration	Fatty, Focal, Moderate
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Minimal
Liver		Inflammation	Granulomatous, Multifocal, Mild
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
	Mandibular	Infiltration Cellular	Plasma Cell, Moderate
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
		Hyperplasia	Cystic, Marked
Note: CYST TGLs = 1,7			
Note: HYPERPLASIA TGLs = 1			
Note: FIBROADENOMA TGLs = 1,2			
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 3,4			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[ Adenoma TGLS = 5 ]			
[ Angiectasis TGLS = 5 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 13

TRT#: 6

DOSE: 0.06%

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Ear	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
Thymus	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Gland	Cortex	Degeneration	Fatty, Focal, Moderate
	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Clitoral Gland	Duct	Cyst	
Note: CYST TGLs = 3			
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Eye		Cataract	Mild
	Retina	Degeneration	Moderate
Note: DEGEN TGLs = 8			
Note: CATARACT TGLs = 8			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Minimal
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6			
Mammary Gland	Duct	Cyst	Multiple
		Fibroadenoma	Cystic, Moderate
		Hyperplasia	
Note: FIBROADENOMA TGLs = 1,2			
Note: HYPERPLASIA TGLs = 1			
Note: CYST TGLs = 1			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 13	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 734 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Ovary		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
	[ Adenoma TGLS = 7 ]		
	[ Angiectasis TGLS = 7 ]		
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5		
Thyroid Gland	C Cell	Hyperplasia	Focal, Minimal
Uterus			
Note: UTERUS RECUR-ABSCESS NOT FOUND.WET TISSUE NEGATIVE.			

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 14

TRT#: 2

SEX: Female

DAY ON TEST: 702

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	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
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Blood		Leukemia Mononuclear	
Clitoral Gland	Duct	Cyst	
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Multifocal, Moderate
[ Leukemia Mononuclear TGLS = 6 ]			
Lung		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5 ]			
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1,2			
Note: CYST TGLs = 1,2			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[ Adenoma TGLS = 3 ]			
[ Angiectasis TGLS = 3 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4 ]			
Stomach	Forestomach	Edema	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 14

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 702

**DOSE:** UNTREATD CONTROL

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Glandular  
Forestomach

Inflammation  
Ulcer

Chronic, Marked  
Focal, Moderate

Note: 1991 CONVERSION DISCREPANCY. ORIGINAL DIAGNOSIS SITE NOT SPECIFIED

Note: INFLAMMATION TGLs = 7

Note: EDEMA TGLs = 7

Note: ULCER TGLs = 7

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 14

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach  
Trachea

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Pituitary Gland  
Stomach - Glandular  
Urinary Bladder

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Salivary Glands  
Thymus  
Uterus

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Thyroid Gland

MISSING

Clitoral Gland

OBSERVATIONS

Heart  
Kidney  
Mammary Gland

Duct

Fibrosis  
Nephropathy  
Cyst  
Fibroadenoma

Multifocal, Mild  
Chronic, Minimal  
Multiple

Note: FIBROADENOMA TGLs = 2  
Note: FIBROADENOMA TGLs = 1  
Note: CYST TGLs = 2,5  
Note: TGL 1-AXILLARY;TGL 2-PERINEUM.

Skin  
Note: HYPERKERATOSIS TGLs = 3  
Note: HYPERKERATOSIS ON FOOT

Hyperkeratosis

Focal, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 14

TRT#: 6

SEX: Female

DAY ON TEST: 670

DOSE: 0.06%

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Esophagus	Islets, Pancreatic
Nose	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland	Trachea	Urinary Bladder	Uterus

MISSING

Thymus

AUTO PRECLUDES DIAG.

Bone Marrow	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	

OBSERVATIONS

Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
Clitoral Gland	Duct	Cyst	
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
Note: DEGEN TGLs = 4			
Note: CATARACT TGLs = 4			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
		Leukemia Mononuclear	
Liver			
Note: LEUKEMIA MONUC TGLs = 3			
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Marked
Note: FIBROADENOMA TGLs = 1			
Note: HYPERPLASIA TGLs = 1,6			
Pituitary Gland	Pars Distalis	Hemorrhage	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 14

**TRT#:** 6  
**DOSE:** 0.06%

**SEX:** Female  
**DISP:** Dead

**DAY ON TEST:** 670  
**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Spleen  
Note: LEUKEMIA MONUC TGLs = 2

Leukemia Mononuclear  
Leukemia Mononuclear

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 15

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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  
Thymus  
Uterus

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Thyroid Gland

OBSERVATIONS

Bone  
Note: CALVARIA-NORMAL

Heart  
Kidney  
Liver

Mammary Gland  
Note: CYST TGLs = 1

Pituitary Gland

Duct

Pars Distalis

Fibrosis  
Nephropathy  
Inflammation  
Cyst

Cyst

Multifocal, Mild  
Chronic, Mild  
Granulomatous, Focal, Mild

Multiple

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 15

TRT#: 4

SEX: Female

DAY ON TEST: 491

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Bone	Brain	Clitoral Gland
Esophagus	Heart	Intestine Large - Cecum	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Liver	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Ovary	Salivary Glands	Skin	Stomach - Forestomach
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

MISSING

Parathyroid Gland

OBSERVATIONS

Adrenal Gland	Medulla	Pheochromocytoma Benign	
	Medulla	Pheochromocytoma Malignant	
Note: PHEOCHROM MAL TGLs = 1			
Bone Marrow	Myeloid Cell	Hyperplasia	Mild
Intestine Large	Colon	Parasite Metazoan	Mild
Kidney		Nephropathy	Chronic, Minimal
Lung	Alveolar Epith	Hyperplasia	Focal, Minimal
Lymph Node	Mediastinal	Erythrophagocytosis	Moderate
Mammary Gland		Hyperplasia	Cystic, Mild
Pancreas	Acinus	Atrophy	Focal, Minimal
Pharynx		Hyperplasia	Moderate
		Inflammation	Suppurative, Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Moderate
Note: HYPERPLASIA TGLs = 5			
Spleen		Hematopoietic Cell Proliferation	Moderate
[ Hematopoietic Cell Proliferation TGLS = 2 ]			
Stomach	Glandular	Erosion	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 15

TRT#: 6

SEX: Female

DAY ON TEST: 727

DOSE: 0.06%

DISP: Dead

HISTO:

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
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder		

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Necrosis	Moderate
Eye		Cataract	Moderate
	Retina	Degeneration	Marked
Note: DEGEN TGLs = 7			
Note: CATARACT TGLs = 7			
Heart		Fibrosis	Multifocal, Marked
Note: FIBROSIS TGLs = 5			
Kidney		Nephropathy	Chronic, Mild
Liver	Centrilobular	Congestion	Mild
		Developmental Malformation	
	Bile Duct	Hyperplasia	Moderate
Note: CONGESTION TGLs = 3			
Note: DEVELOP MALFOR TGLs = 2			
Lung		Congestion	Mild
Note: CONGESTION TGLs = 4			
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 1+9			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[ Adenoma TGLS = 6 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 15	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Dead	<b>DAY ON TEST:</b> 727 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Angiectasis TGLS = 6 ]			
Skin Note: INFLAMMATION TGLs = 1	Subcut Tiss	Inflammation	Suppurative, Marked
Uterus	Endometrium	Hyperplasia Polyp Stromal	Cystic, Mild

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 16

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	Urinary Bladder
Uterus			

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Cyst	
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	Multiple, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
Note: CYST TGLs = 1,2,5			
Note: FIBROADENOMA TGLs = 1,2			
Pituitary Gland	Pars Distalis	Cyst	Multiple
[ Cyst TGLS = 3 ]			
Thyroid Gland	C Cell	Carcinoma	
[ Carcinoma TGLS = 4 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 16

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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
Nose	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Trachea	Urinary Bladder	Uterus

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Angiectasis	Moderate
	Medulla	Angiectasis	Moderate
	Cortex	Hyperplasia	Focal, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Cytologic Alterations	Focal, Moderate
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: CYST	TGLs = 1,4		
Note: FIBROADENOMA	TGLs = 1		
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[ Adenoma TGLS = 3 ]			
[ Angiectasis TGLS = 3 ]			
Thyroid Gland	Follicle	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 16

TRT#: 6

DOSE: 0.06%

SEX: Female

DISP: Moribund

DAY ON TEST: 665

HISTO:

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
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Ovary
Pancreas	Salivary Glands	Skin	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

MISSING

Clitoral Gland

OBSERVATIONS

Brain		Hydrocephalus	Moderate
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
Note: DEGEN	TGLs = 5		
Note: CATARACT	TGLs = 5		
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY	TGLs = 2		
Liver		Vacuolization Cytoplasmic	Diffuse, Marked
Lung		Alveolar/Bronchiolar Adenoma	
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: FIBROADENOMA	TGLs = 1		
Note: CYST	TGLs = 1,6		
Parathyroid Gland		Adenoma	
Note: ADENOMA NOT FOUND IN RECUTS.			
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Carcinoma	
[ Angiectasis TGLS = 4 ]			
[ Carcinoma TGLS = 4 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 16	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 665 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen		Hematopoietic Cell Proliferation	Moderate
Stomach	Forestomach	Cyst	
	Forestomach	Edema	Marked
	Glandular	Inflammation	Chronic, Marked
	Forestomach	Ulcer	Focal, Marked

Note: 1991 CONVERSION DISCREPANCY. ORIGINAL DIAGNOSIS SITE NOT SPECIFIED.

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 17

TRT#: 2

SEX: Female

DAY ON TEST: 701

DOSE: UNTREATD CONTROL

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Heart	Intestine Large - Cecum
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	Thyroid Gland
Trachea	Urinary Bladder		

MISSING

Thymus

OBSERVATIONS

Clitoral Gland	Duct	Cyst	
Intestine Large	Colon	Parasite Metazoan	Mild
Kidney		Nephropathy	Chronic, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
		Fibrosarcoma	
Note: FIBROSARC	TGLs = 1,2,3		
Note: CYST	TGLs = 4		
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 17

TRT#: 4

DOSE: 0.13%

SEX: Female

DISP: Moribund

DAY ON TEST: 705

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Thyroid Gland

Adrenal Gland - Medulla  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach  
Trachea

Bone Marrow  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Salivary Glands  
Stomach - Glandular  
Urinary Bladder

Esophagus  
Intestine Small - Duodenum  
Lung  
Ovary  
Skin  
Thymus  
Uterus

MISSING

Clitoral Gland

OBSERVATIONS

Bone  
Note: HYPEROSTOSIS TGLs = 4

Cranium

Hyperostosis

Brain  
Heart  
Kidney  
Liver  
  
Note: OSTEOSARC TGLs = 3

Degeneration  
Fibrosis  
Nephropathy  
Clear Cell Focus  
Osteosarcoma

Multifocal, Moderate  
Multifocal, Moderate  
Chronic, Moderate  
Mild  
Metastatic (Bone)

Mammary Gland  
  
Note: CYST TGLs = 6  
Note: HYPERPLASIA TGLs = 1  
Note: FIBROADENOMA TGLs = 1

Duct

Cyst  
Fibroadenoma  
Hyperplasia

Cystic, Marked

Pituitary Gland  
Tissue NOS  
Note: OSTEOSARC TGLs = 2  
Note: TGL 2-NOT ADRENAL GL-IS OSTEOSARC

Pars Distalis

Adenoma  
Osteosarcoma

Metastatic (Bone)

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 17

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

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	Stomach - Forestomach	Stomach - Glandular
Thymus	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Focal, Mild
Eye	Retina	Cataract	Marked
		Degeneration	Moderate
Note: DEGEN	TGLs = 3		
Note: CATARACT	TGLs = 3		
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
Mammary Gland	Duct	Cyst	
Note: CYST	TGLs = 4		
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS	TGLs = 1		
Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
Spleen		Leukemia Mononuclear	
Thyroid Gland	C Cell	Carcinoma	
Uterus	Cervix	Abscess	Moderate
Note: ABSCESS	TGLs = 2		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

**ANIMAL ID:** 18

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** UNTREATD CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**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  
Thymus

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Thyroid Gland

**OBSERVATIONS**

Heart  
Kidney  
Liver  
Mammary Gland  
    Note: CYST      TGLs = 2  
Pituitary Gland  
  
    [ Adenoma TGLS = 1 ]  
    [ Angiectasis TGLS = 1 ]  
Uterus  
    Note: HYPERPLASIA      TGLs = 3

Duct  
  
Pars Distalis  
Pars Distalis  
  
Endometrium

Fibrosis  
Nephropathy  
Basophilic Focus  
Cyst  
  
Adenoma  
Angiectasis  
  
Hyperplasia

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

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 18

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 0.13%

DISP: Terminal Sacrifice

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	Liver	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Heart		Inflammation	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
		Hyperplasia	Lobular, Moderate
Note: FIBROADENOMA TGLs = 1,2			
Note: CYST TGLs = 5			
Note: HYPERPLASIA TGLs = 5			
Nose	Lumen	Inflammation	Suppurative, Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[ Adenoma TGLS = 4 ]			
[ Angiectasis TGLS = 4 ]			
Stomach	Glandular	Mineralization	Mild
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 18

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Brain	Ear
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	

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Angiectasis	Marked
Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
Clitoral Gland		Inflammation	Suppurative, Moderate
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
	Lens	Mineralization	Moderate
Note: CATARACT TGLs = 2			
Note: DEGEN TGLs = 2			
Heart		Fibrosis	Multifocal, Mild
Liver		Inflammation	Granulomatous, Multifocal, Moderate
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 1			
Mesentery		Infiltration Cellular	Lymphocyte, Moderate
Pituitary Gland	Pars Distalis	Cyst	
Spleen		Hyperplasia	Lymphoid, Focal, Mild
Uterus	Endometrium	Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 19

TRT#: 2

SEX: Female

DAY ON TEST: 510

DOSE: UNTREATD CONTROL

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Esophagus	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Jejunum	Islets, Pancreatic
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

MISSING

Clitoral Gland

AUTO PRECLUDES DIAG.

Intestine Small - Ileum

OBSERVATIONS

Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6		
Bone Marrow		Leukemia Mononuclear	
Heart		Fibrosis	Multifocal, Mild
Intestine Large	Cecum, Submucosa	Edema	Diffuse, Marked
	Cecum, Submucosa	Hemorrhage	Multifocal, Moderate
	Cecum, Submucosa	Inflammation	Diffuse, Moderate
Note: HEMORRHAGE	TGLs = 2		
Note: EDEMA	TGLs = 2		
Note: INFLAMMATION	TGLs = 2		
Kidney		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 7		
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 3		
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 4		
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA	TGLs = 1		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 19

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 510

**DOSE:** UNTREATD CONTROL

**DISP:** Dead

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Pituitary Gland

Pars Distalis

Cyst

Pars Distalis

Necrosis

Mild

Pars Distalis

Pigmentation

Mild

Spleen

Congestion

Moderate

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 8

Note: CONGESTION TGLs = 8

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 19

TRT#: 4

SEX: Female

DAY ON TEST: 686

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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	Liver	Lymph Node - Mandibular	Lymph Node - Mesenteric
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Gland	Cortex	Degeneration	Fatty, Focal, Mild
Brain		Compression	Marked
[ Compression TGLS = 7 ]			
Kidney		Nephropathy	Chronic, Mild
Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 5 ]		Hyperplasia	Multifocal, Moderate
[ Hyperplasia TGLS = 4 ]			
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 8		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1			
Nose	Lumen	Fungus	
	Lumen	Inflammation	Suppurative, Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
Note: ANGIECTASIS TGLs = 6			
Note: ADENOMA TGLs = 6			
Spleen		Hematopoietic Cell Proliferation	Moderate
Stomach	Forestomach	Edema	Marked
	Forestomach	Inflammation	Chronic, Marked
	Forestomach	Ulcer	Focal, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 19

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 686

**DOSE:** 0.13%

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ULCER      TGLs = 3

Note: INFLAMMATION      TGLs = 3

Note: EDEMA      TGLs = 3

Uterus

Endometrium

Hyperplasia

Cystic, Moderate

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 19

TRT#: 6

DOSE: 0.06%

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Stomach - Forestomach  
Trachea

Adrenal Gland - Medulla  
Ear  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Glandular  
Urinary Bladder

Bone Marrow  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Pituitary Gland  
Thymus

Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Salivary Glands  
Thyroid Gland

OBSERVATIONS

Bone  
Note: HYPEROSTOSIS TGLs = 6

Cranium

Hyperostosis

Mild

Ear  
Note: EXT.&MIDDLE EAR-NORMAL

Eye

Retina

Cataract  
Degeneration

Mild  
Moderate

Note: CATARACT TGLs = 7  
Note: DEGEN TGLs = 7

Heart  
Kidney  
Mammary Gland  
Mesentery

Duct  
Fat

Fibrosis  
Nephropathy  
Cyst  
Necrosis

Multifocal, Moderate  
Chronic, Moderate  
Focal, Moderate

Note: NECROSIS TGLs = 2

Skin  
Note: PAPILLOMA SQUA TGLs = 1

Foot

Squamous Cell Papilloma

Spleen  
Uterus

Cervix  
Cervix

Congestion  
Cyst  
Inflammation  
Polyp Stromal

Moderate  
Suppurative, Mild

Note: CYST TGLs = 3  
Note: INFLAMMATION TGLs = 3,4

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 19

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 734

**DOSE:** 0.06%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: POLYP STROMAL TGLs = 5

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 20

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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  
Thymus

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  
Urinary Bladder

OBSERVATIONS

Bone  
Note: HYPEROSTOSIS TGLs = 4

Cranium

Hyperostosis

Mild

Heart  
Kidney  
Note: NEPHROPATHY TGLs = 6

Fibrosis  
Nephropathy

Multifocal, Moderate  
Chronic, Moderate

Liver  
Note: CLEAR CL FOCUS TGLs = 3

Clear Cell Focus

Moderate

Mammary Gland  
  
Note: ADENOCARC TGLs = 1  
Note: CYST TGLs = 7  
[ Cyst TGLS = 2 ]

Duct

Adenocarcinoma  
Cyst  
Fibroadenoma

Pituitary Gland  
  
[ Adenoma TGLS = 5 ]  
[ Angiectasis TGLS = 5 ]

Pars Distalis  
Pars Distalis

Adenoma  
Angiectasis

Moderate

Trachea  
Uterus

Infiltration Cellular  
Polyp Stromal

Lymphocyte, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 20

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach  
Trachea

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Salivary Glands  
Stomach - Glandular  
Urinary Bladder

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Skin  
Thymus  
Uterus

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Thyroid Gland

MISSING

Clitoral Gland

OBSERVATIONS

Heart  
Kidney  
Mammary Gland

Duct

Fibrosis  
Nephropathy  
Cyst  
Fibroadenoma

Multifocal, Mild  
Chronic, Minimal  
Multiple

Note: FIBROADENOMA TGLs = 1,2

Note: CYST TGLs = 1,3

Pituitary Gland

Pars Distalis

Cyst

Multiple

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 20

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Ear	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	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
Urinary Bladder	Uterus		

MISSING

Lymph Node - Mesenteric	Thymus
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OBSERVATIONS

Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Eye		Cataract	Mild
	Retina	Degeneration	Moderate
Note: CATARACT TGLs = 4			
Note: DEGEN TGLs = 4			
Harderian Gland		Fibrosis	Moderate
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 6			
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 5			
Mesentery		Inflammation	Granulomatous, Focal, Moderate
Note: INFLAMMATION TGLs = 1			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
	Pars Distalis	Cyst	
Note: CYST TGLs = 3			
[ Adenoma TGLS = 3 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 20

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 734

**DOSE:** 0.06%

**DISP:** Terminal Sacrifice

**HISTO:**

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Angiectasis TGLS = 3 ]

Thyroid Gland

C Cell

Hyperplasia

Focal, Moderate

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

**ANIMAL ID:** 21

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** UNTREATD CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Salivary Glands  
Stomach - Glandular  
Uterus

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Lung  
Ovary  
Skin  
Thymus

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Parathyroid Gland  
Spleen  
Trachea

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Pituitary Gland  
Stomach - Forestomach  
Urinary Bladder

**OBSERVATIONS**

Clitoral Gland  
Heart  
Kidney  
Liver  
Mammary Gland  
    Note: CYST      TGLs = 1  
Pancreas  
Thyroid Gland

Duct  
  
  
  
Duct  
  
Acinus  
C Cell

Cyst  
Fibrosis  
Nephropathy  
Inflammation  
Cyst  
  
Atrophy  
Carcinoma

Multifocal, Mild  
Chronic, Mild  
Granulomatous, Multifocal, Moderate  
  
Focal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 21

TRT#: 4

DOSE: 0.13%

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO:

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	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

MISSING

Parathyroid Gland

OBSERVATIONS

Clitoral Gland		Adenoma	
	Duct	Cyst	
Note: CYST	TGLs = 5		
Note: ADENOMA	TGLs = 5		
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Inflammation	Granulomatous, Multifocal, Mild
Note: INFLAMMATION	TGLs = 6		
Lung		Congestion	Mild
Note: CONGESTION	TGLs = 7		
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
Note: FIBROADENOMA	TGLs = 1,2,3,4		
Note: CYST	TGLs = 1,2,3		
Pancreas	Acinus	Atrophy	Focal, Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
Note: ADENOMA	TGLs = 8		
Note: ANGIECTASIS	TGLs = 8		
Uterus	Endometrium	Hyperplasia	Cystic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 21

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 0.13%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 21

TRT#: 6

SEX: Female

DAY ON TEST: 601

DOSE: 0.06%

DISP: Dead

HISTO:

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	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Cortex	Angiectasis	Marked
	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 6		
Bone Marrow		Leukemia Mononuclear	
Brain		Hemorrhage	Focal, Mild
		Leukemia Mononuclear	
Note: HEMORRHAGE	TGLs = 8		
Note: LEUKEMIA MONUC	TGLs = 8		
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 7		
Lung		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Focal, Marked
Note: NECROSIS	TGLs = 2		
Ovary		Leukemia Mononuclear	
Pancreas	Acinus	Atrophy	Focal, Moderate
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC	TGLs = 5		
Uterus		Polyp Stromal	
Note: POLYP STROMAL	TGLs = 1		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 22

TRT#: 2

SEX: Female

DAY ON TEST: 673

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Clitoral Gland	Ear	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	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Trachea
Urinary Bladder	Uterus		

MISSING

Thymus

OBSERVATIONS

Bone			
Note: CALVARIA-NORMAL			
Brain		Compression	Moderate
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Kidney		Nephropathy	Chronic, Mild
Lung		Inflammation	Chronic, Moderate
Note: INFLAMMATION TGLs = 2			
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 3			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[ Adenoma TGLS = 1 ]			
[ Angiectasis TGLS = 1 ]			
Thyroid Gland	C Cell	Hyperplasia	Focal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 22

TRT#: 4

SEX: Female

DAY ON TEST: 513

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Salivary Glands  
Thyroid Gland

Adrenal Gland - Medulla  
Heart  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
Ovary  
Skin  
Trachea

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
Pancreas  
Stomach - Forestomach  
Urinary Bladder

Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Mammary Gland  
Parathyroid Gland  
Thymus  
Uterus

OBSERVATIONS

Blood  
Bone Marrow  
Brain  
    Note: HEMORRHAGE TGLs = 11,12  
Kidney  
Liver  
    Note: LEUKEMIA MONUC TGLs = 8,9  
Lung  
    Note: LEUKEMIA MONUC TGLs = 10  
Pituitary Gland  
Spleen  
  
    Note: LEUKEMIA MONUC TGLs = 4  
Stomach

Pars Distalis

Glandular  
Glandular

Leukemia Mononuclear  
Leukemia Mononuclear  
Hemorrhage  
  
Nephropathy  
Leukemia Mononuclear  
  
Leukemia Mononuclear  
  
Cyst  
Leukemia Mononuclear  
Necrosis  
  
Dysplasia  
Erosion

Multifocal, Moderate  
  
Chronic, Minimal  
  
  
  
Coagulative, Moderate  
  
Focal, Mild  
Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 22

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Ear	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
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Eye		Cataract	Moderate
	Retina	Degeneration	Moderate
Note: DEGEN TGLs = 5			
Note: CATARACT TGLs = 5			
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	Multiple, Mild
Lymph Node	Mesenteric	Hyperplasia	Lymphoid, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
		Hyperplasia	Cystic, Marked
Note: FIBROADENOMA TGLs = 1,2			
Note: CYST TGLs = 1,2			
Note: HYPERPLASIA TGLs = 1,2			
Pancreas	Acinus	Atrophy	Focal, Moderate
Pituitary Gland	Pars Distalis	Angiectasis	Marked
	Pars Distalis	Carcinoma	
[ Angiectasis TGLS = 4 ]			
[ Carcinoma TGLS = 4 ]			
Stomach	Glandular	Mineralization	Mild
Thyroid Gland	C Cell	Hyperplasia	Focal, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 22	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 734 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Uterus	Cervix Endometrium Cervix	Cyst Hyperplasia Inflammation Polyp Stromal	Cystic, Mild Suppurative, Moderate
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Note: INFLAMMATION TGLs = 3

Note: CYST TGLs = 3

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 23

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Intestine Large - Cecum	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	Spleen
Stomach - Forestomach	Stomach - Glandular	Trachea	Urinary Bladder
Uterus			

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Angiectasis	Moderate
Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Colon	Parasite Metazoan	
Islets, Pancreatic		Carcinoma	
Note: CARCINOMA	TGLs = 2		
Kidney		Mineralization	Multifocal, Minimal
		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	Multiple, Mild
Lung		Inflammation	Chronic, Mild
Note: INFLAMMATION	TGLs = 3		
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: CYST	TGLs = 4		
Note: FIBROADENOMA	TGLs = 1		
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
Thyroid Gland	C Cell	Hyperplasia	Multifocal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 23

TRT#: 4

SEX: Female

DAY ON TEST: 677

DOSE: 0.13%

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Esophagus	Lymph Node - Mandibular
Ovary	Parathyroid Gland	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

AUTO PRECLUDES DIAG.

Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Pancreas

INSUFFICIENT TISSUE

Lymph Node - Mesenteric

OBSERVATIONS

Adrenal Gland	Cortex Cortex Medulla	Degeneration Leukemia Mononuclear Leukemia Mononuclear Leukemia Mononuclear	Fatty, Focal, Mild
Bone Marrow		Leukemia Mononuclear	
Clitoral Gland	Duct	Cyst	
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear Vacuolization Cytoplasmic	Diffuse, Moderate
Note: LEUKEMIA MONUC TGLs = 5			
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6,7			
Mammary Gland	Duct	Cyst Fibroadenoma Hyperplasia	Multiple Lobular, Moderate
Note: CYST TGLs = 1,2,12			
Note: FIBROADENOMA TGLs = 1,2			
Nose	Lumen Lumen	Foreign Body Inflammation	Mild Suppurative, Marked
Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

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ANIMAL ID: 23

TRT#: 4

SEX: Female

DAY ON TEST: 677

DOSE: 0.13%

DISP: Dead

HISTO:

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Pars Distalis

Angiectasis

Moderate

[ Adenoma TGLS = 9 ]

[ Angiectasis TGLS = 9 ]

Spleen

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 3

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 23

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex

Bone

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

Stomach - Forestomach

Stomach - Glandular

Thymus

Trachea

Urinary Bladder

Uterus

OBSERVATIONS

Adrenal Gland

Medulla

Pheochromocytoma Benign

Bone Marrow

Myeloid Cell

Hyperplasia

Moderate

Clitoral Gland

Carcinoma

Note: CARCINOMA TGLs = 1

Eye

Cataract

Moderate

Retina

Degeneration

Moderate

Note: DEGEN TGLs = 7

Note: CATARACT TGLs = 7

Kidney

Nephropathy

Chronic, Mild

Liver

Inflammation

Granulomatous, Multifocal, Mild

Mammary Gland

Duct

Cyst

Fibroadenoma

Multiple

Note: FIBROADENOMA TGLs = 2,3,4,5

Note: CYST TGLs = 8

Pituitary Gland

Pars Distalis

Adenoma

Spleen

Hematopoietic Cell Proliferation

Moderate

Thyroid Gland

C Cell

Hyperplasia

Focal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

**ANIMAL ID:** 24

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** UNTREATD CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**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

Bone  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Salivary Glands  
Stomach - Glandular

Bone Marrow  
Heart  
Intestine Small - Duodenum  
Liver  
Ovary  
Skin  
Thymus

Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Pancreas  
Spleen  
Trachea

**OBSERVATIONS**

Adrenal Gland  
Kidney  
Mammary Gland  
    Note: CYST      TGLs = 2  
Nose  
  
Pituitary Gland  
Thyroid Gland  
Uterus  
    Note: CYST      TGLs = 1

Medulla  
  
Duct  
  
Lumen  
Lumen  
Pars Distalis  
C Cell  
Cervix

Pheochromocytoma Benign  
Nephropathy  
Cyst  
  
Fungus  
Inflammation  
Adenoma  
Hyperplasia  
Cyst

Chronic, Moderate  
  
  
  
Suppurative, Mild  
  
Focal, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 24

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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 - Mandibular	Lymph Node - Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

MISSING

Clitoral Gland

OBSERVATIONS

Adrenal Gland	Cortex	Hypertrophy	Focal, Moderate
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Eye	Cornea	Edema	Mild
Note: EDEMA TGLs = 7			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Inflammation	Granulomatous, Multifocal, Mild
Lung		Angiectasis	Mild
Note: ANGIECTASIS TGLs = 4			
Mammary Gland	Duct	Cyst	Multiple
		Fibroadenoma	Cystic, Moderate
		Hyperplasia	
Note: FIBROADENOMA TGLs = 2,3			
Note: CYST TGLs = 1,8			
Note: HYPERPLASIA TGLs = 1			
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Focal, Moderate
[ Angiectasis TGLs = 5 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 24

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Ear	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	Trachea	Urinary Bladder

MISSING

Stomach - Forestomach	Stomach - Glandular	Thymus
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OBSERVATIONS

Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 5			
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 6			
Mammary Gland		Adenocarcinoma	
	Duct	Cyst	
		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 1			
Note: CYST TGLs = 1,2			
Note: ADENOCARC TGLs = 1			
Pancreas		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
		Leukemia Mononuclear	
Note: ANGIECTASIS TGLs = 7			
[ Adenoma TGLS = 7 ]			
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 24

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 734

**DOSE:** 0.06%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: LEUKEMIA MONUC TGLs = 3

Thyroid Gland

Leukemia Mononuclear

Uterus

Endometrium

Hyperplasia

Cystic, Moderate

Note: MASS ON CERVIX NOT FOUND-RECU&WET TISSUE NEGATIVE

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 25

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Intestine Large - Cecum	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	Thymus
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Clitoral Gland	Duct	Cyst	
Heart		Fibrosis	Multifocal, Mild
Intestine Large	Colon	Parasite Metazoan	Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Angiectasis	Focal, Moderate
Lung		Inflammation	Chronic, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
		Hyperplasia	Lobular, Mild
Note: HYPERPLASIA	TGLs = 2		
Note: FIBROADENOMA	TGLs = 1		
Note: CYST	TGLs = 2		
Pancreas	Acinus	Atrophy	Focal, Mild
Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 25

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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	Ovary	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Adrenal Gland	Cortex	Degeneration	Fatty, Focal, Mild
Eye	Cornea	Edema	Mild
Note: EDEMA TGLs = 5			
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	Multiple, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
Note: FIBROADENOMA TGLs = 1,2,3			
Note: CYST TGLs = 3,6			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Moderate
Pancreas	Acinus	Atrophy	Focal, Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[ Adenoma TGLS = 4 ]			
[ Angiectasis TGLS = 4 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 25

TRT#: 6

SEX: Female

DAY ON TEST: 726

DOSE: 0.06%

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Esophagus	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Ovary	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Trachea	Urinary Bladder	

MISSING

Thymus

AUTO PRECLUDES DIAG.

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone Marrow	Clitoral Gland
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Pancreas
Spleen			

OBSERVATIONS

Clitoral Gl			
Note: MASS I POSSIBLE CLITORAL GL CARCINOMA			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Mild
Liver		Vacuolization Cytoplasmic	Multifocal, Moderate
Note: VACUOLIZ CYTO TGLs = 4			
Lung		Congestion	Moderate
Note: CONGESTION TGLs = 5			
Mammary Gland	Duct	Cyst	
Thyroid Gland	C Cell	Adenoma	
Uterus	Lumen	Inflammation	Suppurative, Marked
Note: POLYP STROMAL TGLs = 2			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 26

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Gland	Medulla	Cyst	Multiple, Marked
	Cortex	Degeneration	Fatty, Focal, Moderate
Clitoral Gland	Duct	Cyst	
		Inflammation	Suppurative, Moderate
Ear	Middle Ear	Inflammation	Suppurative, Marked
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Moderate
Note: NEPHROPATHY TGLs = 4			
Liver		Infiltration Cellular	Lymphocyte, Multifocal, Mild
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 5			
Pituitary Gland	Pars Distalis	Cyst	Multiple
Uterus	Cervix	Cyst	
	Cervix	Inflammation	Suppurative, Moderate
		Polyp Stromal	Multiple
Note: POLYP STROMAL TGLs = 2,3			
Note: CYST TGLs = 1			
Note: INFLAMMATION TGLs = 1			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 26

TRT#: 4

SEX: Female

DAY ON TEST: 700

DOSE: 0.13%

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Islets, Pancreatic	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach - Forestomach	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Thymus

AUTO PRECLUDES DIAG.

Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Pituitary Gland	

OBSERVATIONS

Clitoral Gland		Adenoma	
Note: CLITORAL GL ON SLIDE #7	Duct	Cyst	
Note: CYST TGLs = 2			
Note: ADENOMA TGLs = 2			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Minimal
Liver		Necrosis	Coagulative, Focal, Moderate
Note: NECROSIS TGLs = 8			
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 1		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 1			
Spleen		Hematopoietic Cell Proliferation	Moderate
Stomach	Glandular	Mineralization	Moderate
Uterus		Hydrometra	Moderate
Note: POLYP-HIGHLY VASCULAR.		Polyp Stromal	
Note: POLYP STROMAL TGLs = 3			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 26

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 700

**DOSE:** 0.13%

**DISP:** Dead

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: HYDROMETRA TGLs = 4,5

Note: CERVIX ON SLIDE#7B-NO ABSCESS FOUND.

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 26

TRT#: 6

SEX: Female

DAY ON TEST: 498

DOSE: 0.06%

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Mammary Gland  
Stomach - Forestomach  
Uterus

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Ovary  
Thymus

Bone  
Esophagus  
Intestine Small - Duodenum  
Lung  
Parathyroid Gland  
Trachea

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
Spleen  
Urinary Bladder

MISSING

Lymph Node - Mandibular

Pancreas

Pituitary Gland

Salivary Glands

OBSERVATIONS

Heart  
Kidney  
Liver  
    Note: VACUOLIZ CYTO   TGLs = 2  
Nose  
Skin  
    Note: CYST            TGLs = 1  
Stomach  
Thyroid Gland  
Tongue  
    Note: INFLAMMATION   TGLs = 3

Nasolacrim Dct  
Subcut Tiss  
  
Glandular

Fibrosis  
Nephropathy  
Vacuolization Cytoplasmic  
  
Inflammation  
Cyst  
  
Ulcer  
Ultimobranchial Cyst  
Inflammation

Multifocal, Mild  
Chronic, Minimal  
Diffuse, Marked  
  
Suppurative, Moderate  
  
Moderate  
  
Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

**ANIMAL ID:** 27

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 633

**DOSE:** UNTREATD CONTROL

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Glandular  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Kidney  
Mammary Gland  
Salivary Glands  
Thymus

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Skin  
Thyroid Gland

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Stomach - Forestomach  
Trachea

**OBSERVATIONS**

Clitoral Gland  
  
Note: INFLAMMATION TGLs = 1  
Note: CARCINOMA TGLs = 1  
  
Heart  
Liver  
Nose  
Pituitary Gland  
  
Spleen  
Uterus

Carcinoma  
Inflammation  
  
Fibrosis  
Basophilic Focus  
Inflammation  
Adenoma  
Angiectasis  
Hematopoietic Cell Proliferation  
Polyp Stromal  
  
Suppurative, Marked  
  
Multifocal, Moderate  
Multiple, Mild  
Suppurative, Moderate  
  
Marked  
Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 27

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Urinary Bladder

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach

Bone  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Salivary Glands  
Stomach - Glandular

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Skin  
Trachea

**MISSING**

Thymus

**OBSERVATIONS**

Heart  
Kidney  
Mammary Gland  
Pituitary Gland  
  
Thyroid Gland  
Uterus

Duct  
Pars Distalis  
Pars Distalis  
C Cell  
Endometrium

Fibrosis  
Nephropathy  
Cyst  
Angiectasis  
Hyperplasia  
Hyperplasia  
Hyperplasia

Multifocal, Moderate  
Chronic, Moderate  
  
Mild  
Focal, Moderate  
Focal, Mild  
Cystic, Moderate

Note: HYPERPLASIA TGLs = 2

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 27

TRT#: 6

SEX: Female

DAY ON TEST: 634

DOSE: 0.06%

DISP: Moribund

HISTO:

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	Kidney	Nose	Ovary
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Clitoral Gland

OBSERVATIONS

Adrenal Gland	Medulla	Infiltration Cellular	Lymphocyte, Multifocal, Mild
Harderian Gland		Infiltration Cellular	Lymphocyte, Multifocal, Mild
Liver		Basophilic Focus	Multiple, Mild
		Infiltration Cellular	Lymphocyte, Multifocal, Mild
Lung		Infiltration Cellular	Lymphocyte, Multifocal, Moderate
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
	Mesenteric	Hyperplasia	Lymphoid, Moderate
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA	TGLs = 1		
Thymus		Hyperplasia	Lymphoid, Moderate
Uterus	Cervix	Cyst	
	Cervix	Inflammation	Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 28

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Thyroid Gland

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Salivary Glands  
Stomach - Glandular  
Urinary Bladder

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Skin  
Thymus

**OBSERVATIONS**

Heart  
Kidney  
Mammary Gland

Duct

Fibrosis  
Nephropathy  
Cyst  
Fibroadenoma

Multifocal, Moderate  
Chronic, Moderate

Note: CYST TGLs = 1  
Note: FIBROADENOMA TGLs = 1

Pituitary Gland  
Uterus

Pars Distalis  
Endometrium

Cyst  
Hyperplasia

Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

**ANIMAL ID:** 28

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 0.13%

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Mammary Gland  
Parathyroid Gland  
Stomach - Glandular  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Lung  
Nose  
Salivary Glands  
Thymus

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Ovary  
Skin  
Thyroid Gland

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Pancreas  
Stomach - Forestomach  
Trachea

**OBSERVATIONS**

Bone  
Note: TISSUE IS ON SLIDE LABELED "CC"  
Note: HYPEROSTOSIS TGLs = 2

Cranium

Hyperostosis

Heart  
Kidney  
Liver

Fibrosis  
Nephropathy  
Inflammation  
Leukemia Mononuclear  
Cyst  
Leukemia Mononuclear  
Abscess

Multifocal, Mild  
Chronic, Moderate  
Granulomatous, Multifocal, Mild

Pituitary Gland  
Spleen  
Uterus

Pars Distalis  
Cervix

Multiple  
Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 28

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Ear  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Trachea

Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach  
Urinary Bladder

Bone  
Heart  
Intestine Small - Duodenum  
Liver  
Nose  
Salivary Glands  
Stomach - Glandular

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Skin  
Thymus

MISSING

Clitoral Gland

OBSERVATIONS

Brain  
Ear  
Note: EXT&MIDDLE EAR-NORMAL

Carcinoma  
Metastatic (Pituitary Gland)

Kidney  
Mammary Gland  
Note: FIBROADENOMA TGLs = 1,2  
Note: CYST TGLs = 1,2,4

Duct  
Cyst  
Fibroadenoma

Chronic, Mild  
Multiple

Pituitary Gland  
Note: ANGIOECTASIS TGLs = 3  
Note: CARCINOMA TGLs = 3

Pars Distalis  
Pars Distalis  
Angiectasis  
Carcinoma

Moderate

Thyroid Gland  
Uterus  
C Cell

Hyperplasia  
Polyp Stromal  
Multifocal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 29

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

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 - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Colon	Parasite Metazoan	
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	Multiple
Lymph Node	Mesenteric	Angiectasis	Moderate
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
Note: CYST TGLs = 1,2,3			
Note: FIBROADENOMA TGLs = 1,2			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 29

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Nose  
Salivary Glands  
Stomach - Glandular

Bone  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Ovary  
Skin  
Thymus

Bone Marrow  
Heart  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Trachea

OBSERVATIONS

Kidney  
  
Liver  
Lung  
    Note: ANGIECTASIS    TGLs = 3  
Mammary Gland  
    Note: CYST            TGLs = 2  
Pituitary Gland  
Thyroid Gland  
Uterus  
  
    Note: ADENOMA        TGLs = 1

Renal Tubule  
  
  
Duct  
  
Pars Distalis  
C Cell  
Endometrium  
Endometrium

Adenoma  
Nephropathy  
Basophilic Focus  
Angiectasis  
  
Cyst  
  
Cyst  
Hyperplasia  
Adenoma  
Hyperplasia

Chronic, Moderate  
Multiple, Mild  
Mild  
  
  
Multifocal, Mild  
Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 29

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	Esophagus	Intestine Large - Cecum
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
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Clitoral Gland	Thymus
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OBSERVATIONS

Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Heart		Fibrosis	Multifocal, Mild
Intestine Large	Colon, Mucosa	Mineralization	Moderate
Kidney		Nephropathy	Chronic, Mild
Mammary Gland	Duct	Cyst	
		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 1,2			
Note: CYST TGLs = 5			
Pancreas	Acinus	Hyperplasia	Focal, Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
Note: ADENOMA TGLs = 4			
Note: ANGIECTASIS TGLs = 4			
Spleen		Pigmentation	Hemosiderin, Moderate
Uterus		Polyp Stromal	
Note: POLYP STROMAL TGLs = 3			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 30

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Brain	Clitoral Gland
Ear	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	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Cortex	Angiectasis	Moderate
Bone Marrow		Sarcoma	
Heart		Inflammation	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Mild
Lung		Infiltration Cellular	Histiocyte, Focal, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: FIBROADENOMA			
TGLs = 1			
Note: CYST			
TGLs = 1,5			
Pituitary Gland	Pars Distalis	Cyst	
Uterus		Hemorrhage	Chronic, Focal, Mild
		Polyp Stromal	
		Sarcoma Stromal	
Note: SARC STROMAL			
TGLs = 2			
Note: POLYP STROMAL			
TGLs = 3			
Note: HEMORRHAGE			
TGLs = 4			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 30

TRT#: 4

SEX: Female

DAY ON TEST: 693

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	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
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Cortex	Adenoma	
	Cortex	Hyperplasia	Focal, Mild
	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
Blood		Anisocytosis	
Bone Marrow		Leukemia Mononuclear	
Clitoral Gland		Inflammation	Suppurative, Mild
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Minimal
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Lobular, Mild
Pituitary Gland	Pars Distalis	Angiectasis	Mild
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC			
			TGLs = 6
Uterus	Cervix	Sarcoma Stromal	
Note: SARC STROMAL			
			TGLs = 2,3,4

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 30

TRT#: 6

DOSE: 0.06%

SEX: Female

DISP: Moribund

DAY ON TEST: 621

HISTO:

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	Liver	Lung
Lymph Node - Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder			

MISSING

Lymph Node - Mandibular	Thymus
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OBSERVATIONS

Clitoral Gland	Duct	Adenoma Cyst Inflammation	Marked Suppurative, Moderate
Note: INFLAMMATION TGLs = 6 Note: CYST TGLs = 6 [ Cyst TGLS = 6 ]			
Eye		Inflammation	Suppurative, Moderate
Note: INFLAMMATION TGLs = 4,5			
Kidney		Nephropathy	Chronic, Mild
Mammary Gland	Duct	Cyst Fibroadenoma	
Note: CYST TGLs = 1 Note: FIBROADENOMA TGLs = 2			
Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Angiectasis	Moderate
Note: ADENOMA TGLs = 8 [ Adenoma TGLS = 8 ]			
Uterus		Polyp Stromal	
Note: POLYP STROMAL TGLs = 3			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 30

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 621

**DOSE:** 0.06%

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Zymbal's Gland

Carcinoma

Note: CARCINOMA

TGLs = 7

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 31

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

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	Nose	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Adrenal Gland Note: CONGESTION TGLs = 8	Cortex	Congestion	Moderate
Blood		Leukemia Mononuclear	
Heart		Leukemia Mononuclear	
Kidney	Renal Tubule	Nephropathy Pigmentation Hyperplasia Leukemia Mononuclear	Chronic, Mild Hemosiderin, Marked Focal, Mild
Liver  Note: LEUKEMIA MONUC TGLs = 5 Note: HYPERPLASIA TGLs = 2			
Lung		Leukemia Mononuclear	
Lymph Node	Mesenteric	Leukemia Mononuclear	
Mammary Gland Note: CYST TGLs = 7	Duct	Cyst	
Mesentery Note: NECROSIS TGLs = 1	Fat	Necrosis	Focal, Moderate
Ovary Note: CYST TGLs = 6		Cyst	
Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Angiectasis Leukemia Mononuclear	Moderate
Note: LEUKEMIA MONUC TGLs = 3			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 31

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 728

**DOSE:** UNTREATD CONTROL

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ADENOMA TGLs = 3

Note: ANGIECTASIS TGLs = 3

Spleen

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 4

Thyroid Gland

C Cell

Hyperplasia

Multifocal, Moderate

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 31

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	Esophagus	Heart
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
Thymus	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Clitoral Gland		Adenoma	
Note: ADENOMA	TGLs = 1		
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Intestine Large	Cecum	Parasite Metazoan	
Kidney		Nephropathy	Chronic, Mild
Liver		Inflammation	Granulomatous, Multifocal, Mild
Lung		Alveolar/Bronchiolar Adenoma	
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: FIBROADENOMA	TGLs = 2		
Note: CYST	TGLs = 4		
Pancreas	Acinus	Hyperplasia	Focal, Moderate
Pituitary Gland	Pars Distalis	Cyst	
Thyroid Gland	C Cell	Adenoma	
Note: TUMOR NOT PRESENT IN RECUT SECTION			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 31

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex

Bone Marrow

Brain

Ear

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 - Glandular

Thymus

Trachea

Urinary Bladder

MISSING

Adrenal Gland - Medulla

Clitoral Gland

OBSERVATIONS

Bone

Cranium

Hyperostosis

Mild

Note: HYPEROSTOSIS TGLs = 6

Ear

Note: EXT.&MIDDLE EAR-NORMAL

Heart

Fibrosis

Multifocal, Moderate

Kidney

Pelvis

Hydronephrosis

Mild

Note: NEPHROPATHY TGLs = 4

Note: HYDRONEPHROSIS TGLs = 5

Nephropathy

Chronic, Marked

Liver

Inflammation

Granulomatous, Multifocal, Moderate

Mammary Gland

Hyperplasia

Cystic, Moderate

Note: HYPERPLASIA TGLs = 8

Hyperplasia

Lobular, Moderate

Pituitary Gland

Pars Distalis

Adenoma

Pars Distalis

Angiectasis

Moderate

Note: ANGIECTASIS TGLs = 7

Note: ADENOMA TGLs = 7

Skin

Subcut Tiss

Fibrosarcoma

Note: FIBROSARC TGLs = 2

Stomach

Forestomach

Edema

Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 31

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 0.06%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Thyroid Gland	Forestomach	Ulcer	Focal, Marked
Uterus	C Cell	Carcinoma	
	Cervix	Abscess	Moderate
	Cervix	Squamous Cell Carcinoma	

Note: SQUAM CEL CARC TGLs = 3

Note: ABSCESS TGLs = 3

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 32

TRT#: 2

SEX: Female

DAY ON TEST: 719

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

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 - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Gland	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Blood		Leukemia Mononuclear	
Heart		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Focal, Moderate
Note: VACUOLIZ CYTO TGLs = 5			
Note: LEUKEMIA MONUC TGLs = 5			
Lung		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	
		Hyperplasia	Lobular, Moderate
Note: FIBROADENOMA TGLs = 1			
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 2			
Pancreas	Acinus	Atrophy	Focal, Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hemorrhage	Marked
		Leukemia Mononuclear	
[ Adenoma TGLS = 3 ]			
[ Hemorrhage TGLS = 3 ]			
[ Leukemia Mononuclear TGLS = 3 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 32	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 719
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen [ Leukemia Mononuclear TGLS = 4 ]		Leukemia Mononuclear	
Stomach	Forestomach	Edema	Marked
	Forestomach	Ulcer	Focal, Marked
Note: EDEMA TGLs = 6			
Note: ULCER TGLs = 6			
Uterus	Endometrium	Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 7			

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<b>PRIMARY CAUSE OF DEATH</b>	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 32

TRT#: 4

SEX: Female

DAY ON TEST: 412

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	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 - Mandibular
Lymph Node - Mesenteric	Ovary	Pancreas	Parathyroid Gland
Skin	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

MISSING

Clitoral Gland	Nose	Pituitary Gland
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OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Mild
	Cortex	Vacuolization Cytoplasmic	Focal, Mild
Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
Kidney		Nephropathy	Chronic, Mild
Liver		Vacuolization Cytoplasmic	Multifocal, Mild
Lung		Infiltration Cellular	Histiocyte, Focal, Mild
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 4			
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 3			
Salivary Glands		Adenocarcinoma	
Note: ADENOCARC TGLs = 1,2			
Spleen		Hematopoietic Cell Proliferation	Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 32

TRT#: 6

SEX: Female

DAY ON TEST: 665

DOSE: 0.06%

DISP: Moribund

HISTO:

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	Liver	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

Clitoral Gland		Adenoma	
	Duct	Cyst	
Note: CYST TGLs = 2			
Note: ADENOMA TGLs = 2			
Kidney		Nephropathy	Chronic, Minimal
Lung		Congestion	Mild
Note: CONGESTION TGLs = 3			
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1			
Note: CYST TGLs = 5			
Pituitary Gland	Pars Distalis	Angiectasis	Marked
	Pars Distalis	Carcinoma	
[ Angiectasis TGLs = 4 ]			
[ Carcinoma TGLs = 4 ]			
Thyroid Gland	C Cell	Hyperplasia	Multifocal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 33

TRT#: 2

SEX: Female

DAY ON TEST: 602

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Ear  
Intestine Large - Colon  
Intestine Small - Jejunum  
Nose  
Salivary Glands  
Trachea

Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Ovary  
Stomach - Forestomach  
Urinary Bladder

Bone  
Heart  
Intestine Small - Duodenum  
Kidney  
Pancreas  
Stomach - Glandular  
Uterus

Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
Pituitary Gland  
Thyroid Gland

MISSING

Clitoral Gland

Mammary Gland

Parathyroid Gland

OBSERVATIONS

Bone Marrow  
Ear  
Note: EXT. & MIDDLE EAR- NORMAL  
Note: GROSS LESION NOT SEEN  
Eye  
Note: INFLAMMATION TGLs = 4  
Liver  
Lung  
Note: LEUKEMIA MONUC TGLs = 8  
Lymph Node  
Skin  
Note: LEUKEMIA MONUC TGLs = 2  
Note: LEUKEMIA MONUC TGLs = 1  
Note: LEUKEMIA MONUC TGLs = 3  
Spleen  
Note: LEUKEMIA MONUC TGLs = 6  
Note: LEUKEMIA MONUC TGLs = 5

Mandibular  
Mediastinal  
Subcut Tiss  
Subcut Tiss  
Subcut Tiss

Leukemia Mononuclear  
  
Inflammation  
Suppurative, Moderate  
  
Leukemia Mononuclear  
Leukemia Mononuclear  
  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
  
Leukemia Mononuclear

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

---

**ANIMAL ID:** 33

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 602

**DOSE:** UNTREATD CONTROL

**DISP:** Moribund

**HISTO:**

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Thymus

Leukemia Mononuclear

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 33

TRT#: 4

SEX: Female

DAY ON TEST: 448

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Islets, Pancreatic  
Parathyroid Gland  
Stomach - Glandular  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Mammary Gland  
Pituitary Gland  
Thymus

Bone  
Heart  
Intestine Small - Ileum  
Ovary  
Salivary Glands  
Thyroid Gland

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Pancreas  
Skin  
Trachea

MISSING

Clitoral Gland

Intestine Large - Rectum

Nose

OBSERVATIONS

Kidney  
Liver  
Note: VACUOLIZ CYTO TGLs = 1

Nephropathy  
Vacuolization Cytoplasmic

Chronic, Minimal  
Focal, Moderate

Lung  
Lymph Node  
Note: ERYTHROPHAGOCY TGLs = 2

Bronchiole  
Mandibular  
Mesenteric

Infiltration Cellular  
Inflammation  
Erythrophagocytosis  
Erythrophagocytosis

Histiocyte, Focal, Minimal  
Suppurative, Minimal  
Mild  
Moderate

Spleen  
Stomach  
Note: HYPERKERATOSIS TGLs = 5  
Note: HYPERPLASIA TGLs = 5  
Note: EDEMA TGLs = 5

Forestomach  
Forestomach  
Epithelium, Forestomach

Pigmentation  
Edema  
Hyperkeratosis  
Hyperplasia

Hemosiderin, Moderate  
Moderate  
Moderate  
Moderate

Uterus  
Muscularis

Cyst

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 33

TRT#: 6

SEX: Female

DAY ON TEST: 554

DOSE: 0.06%

DISP: Dead

HISTO:

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	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
	Cortex	Necrosis	Moderate
Bone Marrow		Myelofibrosis	Marked
Brain		Degeneration	Multifocal, Mild
Heart		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
	Renal Tubule	Pigmentation	Hemosiderin, Moderate
Liver		Leukemia Mononuclear	
		Necrosis	Coagulative, Diffuse, Marked
	Kupffer Cell	Pigmentation	Bile, Mild
Lung		Leukemia Mononuclear	
Note: LEUKEMIA MONUC			
TGLs = 5			
Lymph Node	Mesenteric	Infiltration Cellular	Histiocyte, Moderate
	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Cystic, Mild
Note: HYPERPLASIA			
TGLs = 2			
Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Focal, Mild
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC			
TGLs = 3			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 33

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 554

**DOSE:** 0.06%

**DISP:** Dead

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 34

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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

Liver

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

MISSING

Clitoral Gland

OBSERVATIONS

Adrenal Gland

Cortex, Extra Adr Tiss

Accessory Adrenal Cortical Nodule

Heart

Fibrosis

Multifocal, Mild

Kidney

Nephropathy

Chronic, Moderate

Mammary Gland

Duct

Cyst

Fibroadenoma

Hyperplasia

Cystic, Marked

Note: CYST TGLs = 1,2

Note: FIBROADENOMA TGLs = 1

Note: HYPERPLASIA TGLs = 1

Pituitary Gland

Pars Distalis

Adenoma

Pars Distalis

Angiectasis

Marked

Note: ADENOMA TGLs = 3

Note: ANGIECTASIS TGLs = 3

Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 34

TRT#: 4

DOSE: 0.13%

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Clitoral Gland
Ear	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	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Gland	Cortex Medulla	Degeneration Pheochromocytoma Benign	Fatty, Focal, Marked
Note: DEGEN TGLs = 6			
Ear			
Note: EXT.&MIDDLE EAR-NORMAL.			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Mammary Gland	Duct	Cyst Fibroadenoma	Multiple
Note: FIBROADENOMA TGLs = 1,2			
Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Angiectasis	Moderate
Note: ANGIECTASIS TGLs = 7			
Note: ADENOMA TGLs = 7			
Uterus	Cervix	Inflammation Leiomyosarcoma Polyp Stromal	Suppurative, Moderate
Note: INFLAMMATION TGLs = 3			
Note: LEIOMYOSAR TGLs = 4			
Note: POLYP STROMAL TGLs = 5			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 34

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Glandular  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Salivary Glands  
Thymus

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

Clitoral Gland

Duct

Adenoma  
Cyst  
Inflammation

Suppurative, Marked

Note: INFLAMMATION TGLs = 1

Note: ADENOMA TGLs = 1

Note: CYST TGLs = 1

Harderian Gland  
Heart  
Kidney

Fibrosis  
Fibrosis  
Mineralization  
Nephropathy

Moderate  
Multifocal, Mild  
Multifocal, Mild  
Chronic, Minimal

Mammary Gland

Duct

Cyst  
Fibroadenoma

Note: CYST TGLs = 2

Note: FIBROADENOMA TGLs = 2

Pituitary Gland

Pars Distalis  
Pars Distalis

Cyst  
Hyperplasia  
Inflammation  
Mineralization

Focal, Mild  
Chronic, Moderate  
Mild

Stomach

Forestomach  
Forestomach

Hyperplasia  
Polyp Stromal

Cystic, Moderate

Uterus

Note: POLYP STROMAL TGLs = 3

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 34

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 734

**DOSE:** 0.06%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Note: HYPERPLASIA TGLs = 3

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 35

TRT#: 2

SEX: Female

DAY ON TEST: 658

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

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	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

Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5			
Blood		Leukemia Mononuclear	
Clitoral Gland	Duct	Adenoma	
		Cyst	
Note: CYST TGLs = 1			
Note: ADENOMA TGLs = 1			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 4			
Lung		Leukemia Mononuclear	
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: CYST TGLs = 6			
Note: FIBROADENOMA TGLs = 2			
Pancreas	Acinus	Atrophy	Focal, Moderate
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 3			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 35

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 658

**DOSE:** UNTREATD CONTROL

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 35

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Skin  
Thymus  
Uterus

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Lung  
Ovary  
Spleen  
Thyroid Gland

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Stomach - Forestomach  
Trachea

Bone Marrow  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Salivary Glands  
Stomach - Glandular  
Urinary Bladder

**MISSING**

Parathyroid Gland

**OBSERVATIONS**

Brain  
Heart  
Kidney  
    Note: NEPHROPATHY    TGLs = 3  
Liver  
Mammary Gland  
    Note: CYST            TGLs = 5  
Mesentery  
    Note: NECROSIS        TGLs = 1  
Pituitary Gland  
    Note: ANGIOECTASIS    TGLs = 4

Bile Duct  
Duct  
Fat  
Pars Distalis

Degeneration  
Fibrosis  
Nephropathy  
Hyperplasia  
Cyst  
Necrosis  
Angiectasis

Multifocal, Mild  
Multifocal, Mild  
Chronic, Moderate  
Mild  
Focal, Moderate  
Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 35

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Ear
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	Trachea
Urinary Bladder	Uterus		

MISSING

Clitoral Gland

OBSERVATIONS

Adrenal Gland	Cortex	Degeneration	Fatty, Focal, Mild
Brain		Compression	Moderate
Ear			
Note: EXTERNAL & MIDDLE EAR- NORMAL			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Developmental Malformation	
Note: DEVELOP MALFOR TGLs = 5			
Mammary Gland	Duct	Adenocarcinoma	
		Cyst	
		Fibroadenoma	Multiple
		Hyperplasia	Cystic, Marked
Note: CYST TGLs = 1,7			
Note: FIBROADENOMA TGLs = 2,3,4			
Note: HYPERPLASIA TGLs = 1,3,4			
Note: ADENOCARC TGLs = 1			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Moderate
Pituitary Gland	Pars Distalis	Angiectasis	Marked
	Pars Distalis	Carcinoma	
[ Angiectasis TGLS = 6 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 35	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Carcinoma TGLS = 6 ]			
Skin Note: INCLUSION CYST- SLIDE 11 & 12		Cyst Epithelial Inclusion	
Thyroid Gland	C Cell	Hyperplasia	Focal, Mild

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PRIMARY CAUSE OF DEATH	-		
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 36

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

Lymph Node - Mandibular

Lymph Node - Mesenteric

Nose

Ovary

Pancreas

Parathyroid Gland

Salivary Glands

Skin

Stomach - Forestomach

Stomach - Glandular

Thymus

Trachea

Urinary Bladder

OBSERVATIONS

Adrenal Gland

Cortex

Degeneration

Fatty, Focal, Moderate

Blood

Leukemia Mononuclear

Bone Marrow

Leukemia Mononuclear

Heart

Fibrosis

Multifocal, Moderate

Kidney

Nephropathy

Chronic, Moderate

Liver

Bile Duct

Hyperplasia

Mild

Leukemia Mononuclear

Lung

Leukemia Mononuclear

Mammary Gland

Adenocarcinoma

Duct

Cyst

Note: ADENOCARC TGLs = 1

Note: CYST TGLs = 5

Pituitary Gland

Pars Distalis

Cyst

Note: CYST TGLs = 3

Spleen

Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 2

Thyroid Gland

Ultimobranchial Cyst

Note: ULTIMOBRA CYST TGLs = 4

Uterus

Endometrium

Hyperplasia

Cystic, Mild

Polyp Stromal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 36

TRT#: 4

DOSE: 0.13%

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Thymus

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Salivary Glands  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
Lung  
Ovary  
Spleen  
Urinary Bladder

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Stomach - Forestomach

OBSERVATIONS

Heart  
Kidney  
Liver  
Mammary Gland

Duct

Fibrosis  
Nephropathy  
Inflammation  
Cyst  
Fibroadenoma

Multifocal, Mild  
Chronic, Minimal  
Granulomatous, Multifocal, Mild

Note: FIBROADENOMA TGLs = 1  
Note: CYST TGLs = 7

Pituitary Gland

Pars Distalis  
Pars Distalis

Angiectasis  
Hyperplasia

Moderate  
Focal, Mild

Note: ANGIECTASIS TGLs = 6  
Note: HYPERPLASIA TGLs = 6

Skin

Note: PAPILLOMA SQUA TGLs = 2

Squamous Cell Papilloma

Stomach  
Thyroid Gland  
Uterus

Glandular  
C Cell  
Cervix  
Endometrium

Mineralization  
Hyperplasia  
Abscess  
Adenoma  
Polyp Stromal

Mild  
Multifocal, Mild  
Marked

Note: ABSCESS TGLs = 3

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 36

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

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
Skin	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Clitoral Gland		Adenoma	
	Duct	Cyst	
Note: CYST TGLs = 7			
Note: ADENOMA TGLs = 7			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	Multiple, Mild
Lung		Congestion	Mild
Note: CONGESTION TGLs = 5			
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 1,2,3			
Note: HYPERPLASIA TGLs = 1,2,3			
Note: CYST TGLs = 1,8			
Pituitary Gland	Pars Distalis	Cyst	Multiple
[ Cyst TGLs = 6 ]			
Spleen		Hematopoietic Cell Proliferation	Moderate
Uterus	Cervix	Cyst	
Note: CERVICAL CYST-KERATIN FILLED			
Note: CYST TGLs = 4			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 37

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex

Adrenal Gland - Medulla

Bone

Bone Marrow

Brain

Esophagus

Intestine Large - Cecum

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

Trachea

Urinary Bladder

Uterus

OBSERVATIONS

Clitoral Gland

Duct

Carcinoma

Cyst

Note: CYST TGLs = 4

Heart

Fibrosis

Multifocal, Mild

Intestine Large

Colon

Parasite Metazoan

Kidney

Nephropathy

Chronic, Moderate

Note: NEPHROPATHY TGLs = 3,5

Mammary Gland

Duct

Cyst

Fibroadenoma

Hyperplasia

Cystic, Marked

Note: HYPERPLASIA TGLs = 1,2,6

Note: CYST TGLs = 1,2,6

Note: FIBROADENOMA TGLs = 2

Thyroid Gland

C Cell

Hyperplasia

Focal, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 37

TRT#: 4

DOSE: 0.13%

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO:

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	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder			

MISSING

Thymus

OBSERVATIONS

Adrenal Gland	Cortex	Hyperplasia	Focal, Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	Multiple, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: FIBROADENOMA			
TGLs = 1			
Note: CYST			
TGLs = 1,5			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[ Adenoma TGLS = 4 ]			
[ Angiectasis TGLS = 4 ]			
Uterus	Endometrium	Hyperplasia	Cystic, Moderate
	Cervix	Inflammation	Suppurative, Moderate
Note: INFLAMMATION			
TGLs = 2			
Note: HYPERPLASIA			
TGLs = 3			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 37

TRT#: 6

SEX: Female

DAY ON TEST: 390

DOSE: 0.06%

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Esophagus
Eye	Intestine Large - Cecum	Intestine Large - Colon	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

MISSING

Clitoral Gland	Intestine Large - Rectum	Nose
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OBSERVATIONS

Adrenal Gland	Cortex	Angiectasis	Marked
	Cortex	Hemorrhage	Diffuse, Marked
	Cortex	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2			
Brain		Hemorrhage	Multifocal, Moderate
		Leukemia Mononuclear	
Heart		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 1			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 38

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Gland	Cortex	Angiectasis	Moderate
Brain		Compression	Marked
Note: COMPRESSION TGLs = 8			
Harderian Gland		Fibrosis	Moderate
Heart		Fibrosis	Multifocal, Mild
Kidney	Renal Tubule	Degeneration	Moderate
		Nephropathy	Chronic, Mild
Liver		Developmental Malformation	
Note: DEVELOP MALFOR TGLs = 6			
Lung		Alveolar/Bronchiolar Adenoma	
Note: ALV BRON ADEN TGLs = 10			
Mammary Gland	Duct	Adenocarcinoma	
		Cyst	
		Fibroadenoma	Multiple
Note: ADENOCARC TGLs = 1			
Note: CYST TGLs = 2,3,4,9			
Note: FIBROADENOMA TGLs = 2,3,4			
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 5			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
Note: ADENOMA TGLs = 7			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 38

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** UNTREATD CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Angiectasis TGLS = 7 ]

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 38

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Heart  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pituitary Gland  
Stomach - Forestomach  
Trachea

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Salivary Glands  
Stomach - Glandular  
Urinary Bladder

Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Ovary  
Skin  
Thymus  
Uterus

Esophagus  
Intestine Small - Duodenum  
Lung  
Parathyroid Gland  
Spleen  
Thyroid Gland

OBSERVATIONS

Adrenal Gland  
Bone  
    Note: HYPEROSTOSIS   TGLs = 3  
Clitoral Gland  
Intestine Large  
Kidney  
Liver  
Mammary Gland  
    Note: FIBROADENOMA   TGLs = 1,2  
    Note: CYST            TGLs = 2,4  
Nose  
Pancreas

Medulla  
Cranium  
Duct  
Colon  
Duct  
Nasolacrim Dct  
Acinus

Pheochromocytoma Benign  
Hyperostosis  
Cyst  
Parasite Metazoan  
Nephropathy  
Basophilic Focus  
Cyst  
Fibroadenoma  
Inflammation  
Atrophy

Chronic, Mild  
Multiple, Mild  
Multiple  
Suppurative, Moderate  
Focal, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 38

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Ear	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
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Cortex	Degeneration	Fatty, Focal, Mild
Clitoral Gland	Duct	Carcinoma	
		Cyst	
		Inflammation	Suppurative, Marked
Note: INFLAMMATION	TGLs = 1		
Note: CARCINOMA	TGLs = 1		
Note: CYST	TGLs = 1		
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Minimal
Liver		Basophilic Focus	Multiple, Mild
	Bile Duct	Hyperplasia	Mild
		Alveolar/Bronchiolar Adenoma	
Lung			
Note: ALV BRON ADEN	TGLs = 3		
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: CYST	TGLs = 4		
Note: FIBROADENOMA	TGLs = 2,4		
Spleen		Congestion	Moderate
Uterus		Hydrometra	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 38

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 734

**DOSE:** 0.06%

**DISP:** Terminal Sacrifice

**HISTO:**

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

Endometrium

Hyperplasia

Cystic, Moderate

Polyp Stromal

Note: POLYP STROMAL TGLs = 5

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 39

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

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
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Cortex	Angiectasis	Moderate
Clitoral Gland	Duct	Cyst	
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Minimal
Liver		Basophilic Focus	Multiple, Moderate
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: CYST	TGLs = 1,3		
Note: FIBROADENOMA	TGLs = 2		
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 39

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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  
Ovary  
Skin  
Thymus

Bone  
Esophagus  
Intestine Small - Duodenum  
Liver  
Parathyroid Gland  
Spleen  
Trachea

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pituitary Gland  
Stomach - Forestomach  
Urinary Bladder

OBSERVATIONS

Heart  
Kidney  
    Note: NEPHROPATHY    TGLs = 2  
Lung  
    Note: CARCINOMA      TGLs = 3  
Mammary Gland  
  
    Note: CYST            TGLs = 1,4  
    Note: FIBROADENOMA   TGLs = 1

Duct

Nasolacrim Dct

Nose  
    Note: SUPPURATIVE LESION-SLIDES 11&12

Pancreas  
Thyroid Gland

Acinus  
C Cell

Fibrosis  
Nephropathy  
  
Carcinoma  
  
Cyst  
Fibroadenoma

Inflammation  
  
Atrophy  
Carcinoma

Multifocal, Moderate  
Chronic, Marked  
  
Metastatic (Thyroid Gland)

Suppurative, Marked  
  
Focal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 39

TRT#: 6

SEX: Female

DAY ON TEST: 715

DOSE: 0.06%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex

Adrenal Gland - Medulla

Bone

Bone Marrow

Brain

Clitoral Gland

Esophagus

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

Tissue NOS

Trachea

Urinary Bladder

MISSING

Thymus

OBSERVATIONS

Heart

Fibrosis

Multifocal, Mild

Intestine Large

Cecum

Parasite Metazoan

Colon

Parasite Metazoan

Kidney

Renal Tubule

Pigmentation

Hemosiderin, Moderate

Note: PIGMENT TGLs = 3

Liver

Basophilic Focus

Multiple, Mild

Mammary Gland

Fibroadenoma

Note: FIBROADENOMA TGLs = 1

Pancreas

Acinus

Atrophy

Focal, Mild

Pituitary Gland

Pars Distalis

Angiectasis

Mild

Pars Distalis

Cyst

Pars Distalis

Hyperplasia

Focal, Moderate

Spleen

Hematopoietic Cell Proliferation

Moderate

Thyroid Gland

C Cell

Hyperplasia

Multifocal, Moderate

Ultimobranchial Cyst

Uterus

Endometrium

Hyperplasia

Cystic, Moderate

Note: POLYP STROMAL TGLs = 2

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 40

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

**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  
Thymus

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Trachea

**OBSERVATIONS**

Heart  
Kidney  
  
Liver  
Mammary Gland  
Note: CYST      TGLs = 1  
Pituitary Gland  
  
Thyroid Gland

Pelvis  
  
  
Duct  
  
Pars Distalis  
Pars Distalis  
C Cell

Fibrosis  
Infiltration Cellular  
Nephropathy  
Inflammation  
Cyst  
  
Adenoma  
Angiectasis  
Hyperplasia

Multifocal, Moderate  
Lymphocyte, Moderate  
Chronic, Moderate  
Granulomatous, Multifocal, Mild  
  
  
  
Mild  
Focal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 40

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Trachea	Urinary Bladder		

OBSERVATIONS

Kidney		Nephropathy	Chronic, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
Note: FIBROADENOMA TGLs = 1,2			
Note: CYST TGLs = 1,6			
Pancreas	Acinus	Atrophy	Focal, Mild
Pituitary Gland	Pars Distalis	Cyst	Multiple
Note: CYST TGLs = 4			
Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Focal, Mild
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 40

TRT#: 6

SEX: Female

DAY ON TEST: 687

DOSE: 0.06%

DISP: Moribund

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
Nose	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Lymph Node - Mesenteric

OBSERVATIONS

Harderian Gland		Fibrosis	Moderate
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Note: NEPHROPATHY TGLs = 6			
Liver		Vacuolization Cytoplasmic	Focal, Mild
Note: VACUOLIZ CYTO TGLs = 7			
Mammary Gland		Adenocarcinoma	Multiple
	Duct	Cyst	
		Fibroadenoma	
		Hyperplasia	Lobular, Moderate
		Hyperplasia	Cystic, Moderate
Note: FIBROADENOMA TGLs = 1			
Note: CYST TGLs = 11			
Note: HYPERPLASIA TGLs = 11			
Note: ADENOCARC TGLs = 3,2			
[ Hyperplasia TGLS = 1 ]			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[ Adenoma TGLS = 8 ]			
[ Angiectasis TGLS = 8 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

---

**ANIMAL ID:** 40

**TRT#:** 6  
**DOSE:** 0.06%

**SEX:** Female  
**DISP:** Moribund

**DAY ON TEST:** 687  
**HISTO:**

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Spleen		Hematopoietic Cell Proliferation	Moderate
Uterus	Cervix	Cyst	Multiple
	Cervix	Inflammation	Suppurative, Mild
	Endometrium	Inflammation	Suppurative, Mild
	Endometrium	Necrosis	Focal, Moderate
		Polyp Stromal	

Note: MASS 5 APPEARS TO BE NECROTIC STROMAL POLYP

Note: NECROSIS TGLs = 5

Note: INFLAMMATION TGLs = 9

Note: POLYP STROMAL TGLs = 4

Note: CYST TGLs = 9

---

**PRIMARY CAUSE OF DEATH** -

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 41

TRT#: 2

SEX: Female

DAY ON TEST: 428

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

**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 - Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Lymph Node - Mandibular

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Liver		Basophilic Focus	Multiple, Minimal
Mammary Gland		Fibroadenoma	
Note: FIBROADENOMA	TGLs = 1		
Pituitary Gland	Pars Distalis	Cyst	
Uterus	Endometrium	Cyst	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 41

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Spleen  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Pituitary Gland  
Stomach - Forestomach

Bone  
Heart  
Intestine Small - Duodenum  
Lung  
Ovary  
Salivary Glands  
Stomach - Glandular

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Skin  
Trachea

MISSING

Thymus

OBSERVATIONS

Clitoral Gland

Duct

Adenoma

Cyst

Marked

Note: CYST TGLs = 1

Note: ADENOMA TGLs = 1

Kidney

Nephropathy

Chronic, Mild

Liver

Inflammation

Granulomatous, Multifocal, Mild

Mammary Gland

Duct

Cyst

Thyroid Gland

C Cell

Hyperplasia

Focal, Mild

Uterus

Cervix

Cyst

Marked

Note: INFLAMMATION TGLs = 2,3

Note: CYST TGLs = 2,3

Cervix

Inflammation

Suppurative, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 41

TRT#: 6

DOSE: 0.06%

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Esophagus	Intestine Large - Cecum	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
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

Adrenal Gland	Cortex	Degeneration	Fatty, Focal, Mild
Clitoral Gland	Duct	Cyst	
Heart		Fibrosis	Multifocal, Moderate
Intestine Large	Colon	Parasite Metazoan	
Kidney		Nephropathy	Chronic, Minimal
Lung		Infiltration Cellular	Lymphocyte, Multifocal, Mild
Note: INFILTRAT CELL TGLs = 2			
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 1			
Note: CYSTIC DUCT SLIDE 7B			
Pancreas	Acinus	Atrophy	Focal, Marked
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Cyst	
Note: ADENOMA TGLs = 3			
[ Angiectasis TGLS = 3 ]			
[ Cyst TGLS = 3 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 42

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Ovary  
Skin  
Thymus

Adrenal Gland - Medulla  
Ear  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Pancreas  
Spleen  
Thyroid Gland

Bone Marrow  
Esophagus  
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

OBSERVATIONS

Bone  
Note: HYPEROSTOSIS TGLs = 2  
Ear  
Note: EXT. & MIDDLE EAR- NORMAL  
Heart  
Kidney  
Pituitary Gland  
[ Angiectasis TGLS = 1 ]  
[ Carcinoma TGLS = 1 ]  
Uterus  
Note: HYPERPLASIA TGLs = 3

Cranium  
  
  
  
  
  
Pars Distalis  
Pars Distalis  
  
Endometrium

Hyperostosis  
  
  
Fibrosis  
Nephropathy  
Angiectasis  
Carcinoma  
  
Hyperplasia

Mild  
  
  
Multifocal, Mild  
Chronic, Moderate  
Moderate  
  
Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 42

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Salivary Glands  
Stomach - Glandular  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Lung  
Ovary  
Skin  
Thymus  
Uterus

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  
Trachea

OBSERVATIONS

Bone  
Note: HYPEROSTOSIS TGLs = 5

Cranium

Hyperostosis

Heart  
Kidney  
Note: NEPHROPATHY TGLs = 4

Fibrosis  
Nephropathy

Multifocal, Moderate  
Chronic, Moderate

Liver  
Mammary Gland  
  
Note: CYST TGLs = 1,2,3,7  
Note: HYPERPLASIA TGLs = 2,3  
Note: FIBROADENOMA TGLs = 1,2,3

Duct

Basophilic Focus  
Cyst  
Fibroadenoma  
Hyperplasia

Multiple, Mild  
  
Multiple  
Cystic, Moderate

Pituitary Gland Pars Distalis

Adenoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 42

TRT#: 6

SEX: Female

DAY ON TEST: 491

DOSE: 0.06%

DISP: Dead

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Nose  
Skin  
Thyroid Gland

Bone  
Esophagus  
Intestine Large - Rectum  
Lymph Node - Mandibular  
Pancreas  
Stomach - Forestomach  
Trachea

Bone Marrow  
Heart  
Intestine Small - Duodenum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Glandular  
Urinary Bladder

Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Mammary Gland  
Salivary Glands  
Thymus

**MISSING**

Islets, Pancreatic

**OBSERVATIONS**

Adrenal Gland  
Kidney  
Liver  
Lung  
Ovary  
Pituitary Gland  
Spleen  
Note: LEUKEMIA MONUC TGLs = 1,2  
Uterus

Cortex

Pars Distalis

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Hyperplasia  
Leukemia Mononuclear  
Hydrometra

Focal, Mild

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

**ANIMAL ID:** 43

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 727

**DOSE:** UNTREATD CONTROL

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Nose  
Pituitary Gland  
Stomach - Glandular  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Ovary  
Salivary Glands  
Thymus

Bone Marrow  
Heart  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Thyroid Gland

Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach  
Trachea

**OBSERVATIONS**

Bone  
    Note: HYPEROSTOSIS   TGLs = 3  
Kidney  
Liver  
Lung  
Mammary Gland  
  
    Note: CYST            TGLs = 4  
    Note: FIBROADENOMA   TGLs = 1  
Skin  
    Note: HEMANGIOSARC   TGLs = 2  
Uterus

Cranium  
  
  
  
  
  
  
  
  
  
Duct  
  
  
  
  
  
  
  
  
  
Subcut Tiss

Hyperostosis  
  
Nephropathy  
Basophilic Focus  
Alveolar/Bronchiolar Adenoma  
Cyst  
Fibroadenoma  
  
  
  
  
  
  
  
  
  
Hemangiosarcoma  
  
  
  
  
  
  
  
  
  
Polyp Stromal

Mild  
  
Chronic, Mild  
Multiple, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 43

TRT#: 4

SEX: Female

DAY ON TEST: 678

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Intestine Large - Cecum  
Intestine Small - Ileum  
Parathyroid Gland  
Stomach - Glandular

Adrenal Gland - Medulla  
Intestine Large - Colon  
Intestine Small - Jejunum  
Salivary Glands  
Thyroid Gland

Bone  
Intestine Large - Rectum  
Islets, Pancreatic  
Skin  
Trachea

Esophagus  
Intestine Small - Duodenum  
Nose  
Stomach - Forestomach

OBSERVATIONS

Blood  
Bone Marrow  
Brain  
Clitoral Gland  
Heart  
Kidney

Duct

Leukemia Mononuclear  
Leukemia Mononuclear  
Degeneration  
Cyst  
Leukemia Mononuclear  
Leukemia Mononuclear  
Nephropathy

Multifocal, Mild

Chronic, Minimal

Note: LEUKEMIA MONUC TGLs = 4,5  
Note: LEUKEMIA MONUC-SLIDES 6&6C

Liver  
Lung  
Lymph Node

Inguinal  
Mandibular  
Mesenteric

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear

Note: LEUKEMIA MONUC TGLs = 6  
Note: LEUKEMIA MONUC TGLs = 2,7

Mammary Gland  
Note: CYST TGLs = 1

Duct

Cyst

Mesentery  
Ovary  
Pancreas  
Pituitary Gland

Pars Distalis

Leukemia Mononuclear  
Leukemia Mononuclear  
Leukemia Mononuclear  
Adenoma  
Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 9 ]

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

---

**ANIMAL ID:** 43

**TRT#:** 4  
**DOSE:** 0.13%

**SEX:** Female  
**DISP:** Moribund

**DAY ON TEST:** 678  
**HISTO:**

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Spleen		Leukemia Mononuclear
Note: LEUKEMIA MONUC	TGLs = 3	
Thymus		Leukemia Mononuclear
Note: LEUKEMIA MONUC	TGLs = 8	
Urinary Bladder		Leukemia Mononuclear
Uterus		Leukemia Mononuclear

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 43

TRT#: 6

SEX: Female

DAY ON TEST: 653

DOSE: 0.06%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Parathyroid Gland  
Stomach - Forestomach  
Urinary Bladder

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Pituitary Gland  
Thymus

Bone  
Esophagus  
Intestine Small - Duodenum  
Kidney  
Nose  
Salivary Glands  
Thyroid Gland

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Spleen  
Trachea

OBSERVATIONS

Harderian Gland  
Heart  
Liver  
Mammary Gland  
    Note: CYST      TGLs = 2  
Pancreas  
Skin  
    Note: FIBROMA      TGLs = 1  
Stomach  
Uterus  
    Note: MASSES IN HORNS NOT FOUND WET TISSUE RE-EXAMINED  
    Note: ABSCESS      TGLs = 3

Duct

Acinus  
Subcut Tiss

Glandular  
Cervix

Fibrosis  
Fibrosis  
Basophilic Focus  
Cyst

Atrophy  
Fibroma

Mineralization  
Abscess

Marked  
Multifocal, Moderate  
Multiple, Mild  
  
Focal, Moderate  
  
Mild  
Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 44

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Ear
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
Pituitary Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Cortex Medulla	Angiectasis Pheochromocytoma Benign	Moderate
Note: ANGIECTASIS TGLs = 2			
Blood		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5			
Clitoral Gland	Duct	Carcinoma Cyst	
Note: CYST TGLs = 1			
Note: CARCINOMA TGLs = 1			
Ear			
Note: EXT.&MIDDLE EAR-NORMAL			
Heart		Fibrosis	Multifocal, Mild
Liver		Basophilic Focus	Multiple, Mild
		Necrosis	Coagulative, Focal, Moderate
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 4			
Spleen		Hematopoietic Cell Proliferation	Marked
Note: HEMA CELL PROL TGLs = 3			
Thyroid Gland	C Cell	Adenoma	
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 44

TRT#: 4

SEX: Female

DAY ON TEST: 448

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Blood	Bone
Brain	Esophagus	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Lymph Node - Mandibular	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

MISSING

Clitoral Gland	Nose		
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OBSERVATIONS

Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
Intestine Large	Rectum	Parasite Metazoan	Mild
Liver		Hematopoietic Cell Proliferation	Mild
		Necrosis	Coagulative, Focal, Minimal
Note: HEMA CELL PROL TGLs = 6			
Lung		Infiltration Cellular	Histiocyte, Focal, Minimal
		Inflammation	Chronic, Minimal
Lymph Node	Axillary	Hyperplasia	Lymphoid, Moderate
	Axillary	Infiltration Cellular	Plasma Cell, Moderate
	Axillary	Infiltration Cellular	Histiocyte, Moderate
	Mesenteric	Infiltration Cellular	Histiocyte, Moderate
Note: INFILTRAT CELL TGLs = 2			
Note: INFILTRAT CELL TGLs = 2			
Note: INFILTRAT CELL TGLs = 2			
Note: HYPERPLASIA TGLs = 2			
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 3			
Note: FIBROADENOMA TGLs = 1			
Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 44

**TRT#:** 4  
**DOSE:** 0.13%

**SEX:** Female  
**DISP:** Moribund

**DAY ON TEST:** 448  
**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Adenoma TGLS = 7 ]

Spleen  
Note: HEMA CELL PROL TGLs = 4

Hematopoietic Cell Proliferation

Moderate

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 44

TRT#: 6

DOSE: 0.06%

SEX: Female

DISP: Moribund

DAY ON TEST: 728

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Clitoral Gland	Ear
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
Stomach - Glandular	Thymus	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Adrenal Gland	Cortex	Adenoma	
	Cortex	Angiectasis	Marked
	Medulla	Angiectasis	Marked
Note: ANGIECTASIS	TGLs = 5		
Note: ADENOMA	TGLs = 5		
Brain		Compression	Moderate
[ Compression TGLS = 3 ]			
Ear			
Note: EXTERNAL & MIDDLE EAR-NORMAL			
Heart		Fibrosis	Multifocal, Mild
Kidney	Renal Tubule	Hyperplasia	Focal, Mild
		Nephropathy	Chronic, Mild
Liver		Inflammation	Granulomatous, Multifocal, Mild
		Neoplastic Nodule	
		Vacuolization Cytoplasmic	Multifocal, Moderate
Note: VACUOLIZ CYTO	TGLs = 2		
Mammary Gland		Adenocarcinoma	
	Duct	Cyst	
Note: CYST	TGLs = 6		
Note: ADENOCARC	TGLs = 1		
Ovary		Cyst	
Pituitary Gland	Pars Distalis	Angiectasis	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 44	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 728 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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	Pars Distalis	Carcinoma	
[ Angiectasis TGLS = 4 ]			
[ Carcinoma TGLS = 4 ]			
Spleen		Congestion	Moderate
Stomach	Forestomach	Hyperkeratosis	Marked
	Forestomach	Hyperplasia	Moderate
Thyroid Gland	C Cell	Adenoma	Multiple
		Ultimobranchial Cyst	

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 45

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

**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	Liver
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**

Adrenal Gland	Cortex	Angiectasis	Moderate
	Medulla	Angiectasis	Moderate
Clitoral Gland		Carcinoma	
Note: SLIDE 7B CLITORAL GL-CARCINOMA			
Note: CARCINOMA TGLs = 1			
Heart		Fibrosis	Multifocal, Moderate
Kidney		Nephropathy	Chronic, Mild
Mammary Gland		Fibroadenoma	
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 2			
Thyroid Gland	C Cell	Carcinoma	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 45

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

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  
Thymus

Bone  
Esophagus  
Intestine Small - Duodenum  
Lung  
Pancreas  
Spleen  
Thyroid Gland

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Parathyroid Gland  
Stomach - Forestomach  
Trachea

OBSERVATIONS

Eye  
Heart  
Kidney  
    Note: NEPHROPATHY    TGLs = 2  
Liver  
Mammary Gland  
    Note: CYST            TGLs = 7  
Nose  
Pituitary Gland  
  
    [ Adenoma TGLS = 5 ]  
    [ Angiectasis TGLS = 5 ]  
Uterus  
    Note: POLYP STROMAL    TGLs = 1

Retina  
  
Bile Duct  
Duct  
  
Nasolacrim Dct  
Pars Distalis  
Pars Distalis

Degeneration  
Fibrosis  
Nephropathy  
  
Hyperplasia  
Cyst  
  
Inflammation  
Adenoma  
Angiectasis

Mild  
Multifocal, Moderate  
Chronic, Moderate  
  
Mild  
  
Suppurative, Moderate  
  
Marked

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 45

TRT#: 6

SEX: Female

DAY ON TEST: 714

DOSE: 0.06%

DISP: Moribund

HISTO:

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	Lymph Node - Mandibular	Ovary	Parathyroid Gland
Salivary Glands	Skin	Spinal Cord	Stomach - Glandular
Thymus	Trachea	Urinary Bladder	

MISSING

Clitoral Gland

OBSERVATIONS

Adrenal Gland	Cortex	Degeneration	Fatty, Focal, Marked
Harderian Gland		Fibrosis	Moderate
Kidney		Nephropathy	Chronic, Marked
Note: NEPHROPATHY TGLs = 4			
Liver		Vacuolization Cytoplasmic	Diffuse, Marked
Note: VACUOLIZ CYTO TGLs = 5			
Lung		Inflammation	Chronic, Mild
Lymph Node	Mesenteric	Angiectasis	Moderate
Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Cystic, Moderate
		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 8			
Note: HYPERPLASIA TGLs = 2			
Note: FIBROADENOMA TGLs = 1,2			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
Pancreas	Acinus	Hyperplasia	Focal, Mild
Pituitary Gland	Pars Distalis	Angiectasis	Marked
	Pars Distalis	Carcinoma	
[ Angiectasis TGLS = 7 ]			
[ Carcinoma TGLS = 7 ]			
Spinal Cord			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 45	<b>TRT#:</b> 6 <b>DOSE:</b> 0.06%	<b>SEX:</b> Female <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 714 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: SPINAL CORD-NORMAL			
Spleen		Atrophy	Moderate
Stomach	Forestomach	Edema	Marked
	Forestomach	Hyperkeratosis	Moderate
	Forestomach	Hyperplasia	Moderate
	Forestomach	Ulcer	Focal, Marked
Thyroid Gland	C Cell	Hyperplasia	Focal, Mild
Note: RECUT SECTION NOT IMPROVED			
Uterus	Endometrium	Hyperplasia	Cystic, Mild

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 46

TRT#: 2

SEX: Female

DAY ON TEST: 709

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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
Salivary Glands	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Gland	Cortex	Leukemia Mononuclear	
	Medulla	Leukemia Mononuclear	
	Cortex	Vacuolization Cytoplasmic	Focal, Moderate
Bone Marrow		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
Liver		Developmental Malformation	
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Focal, Mild
Note: DEVELOP MALFOR	TGLs = 4		
Note: LEUKEMIA MONUC	TGLs = 6		
Lung		Leukemia Mononuclear	
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
	Mandibular	Hyperplasia	Lymphoid, Moderate
	Mandibular	Inflammation	Suppurative, Moderate
Mammary Gland		Adenocarcinoma	
	Duct	Cyst	
		Fibroadenoma	
Note: ADENOCARC	TGLs = 1		
Note: FIBROADENOMA	TGLs = 2		
Note: CYST	TGLs = 8		
Mesentery	Fat	Necrosis	Focal, Mild
Note: NECROSIS	TGLs = 3		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01  
**Test Type:** CHRONIC  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nitrofurantoin  
**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 13:53:41  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 46	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 709
	<b>DOSE:</b> UNTREATD CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Nose	Lumen	Fungus	
	Lumen	Inflammation	Suppurative, Marked
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
Note: ANGIECTASIS TGLs = 7			
Skin	Subcut Tiss	Sarcoma	
Note: SARCOMA TGLs = 1			
Spleen		Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 5			

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 46

TRT#: 4

DOSE: 0.13%

SEX: Female

DISP: Moribund

DAY ON TEST: 675

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Clitoral Gland	Ear	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	Salivary Glands
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Brain		Carcinoma	Metastatic (Pituitary Gland)
Ear			
Note: EXT&MIDDLE EAR-NORMAL			
Eye		Cataract	Marked
	Retina	Degeneration	Marked
		Synechia	Marked
Note: SYNECHIA TGLs = 4			
Note: CATARACT TGLs = 4			
Kidney		Nephropathy	Chronic, Moderate
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: SLIDE 8-CYSTIC DUCTS			
Note: FIBROADENOMA TGLs = 2			
Note: CYST TGLs = 2,5			
Pituitary Gland	Pars Distalis	Angiectasis	Marked
	Pars Distalis	Carcinoma	
[ Angiectasis TGLs = 3 ]			
[ Carcinoma TGLs = 3 ]			
Skin		Keratoacanthoma	
Note: KERATOACANTHMA TGLs = 1			
Uterus	Endometrium	Hyperplasia	Cystic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:41

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

**Lab:** SRI

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**ANIMAL ID:** 46

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 675

**DOSE:** 0.13%

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:41

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 46

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	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	Thyroid Gland	Trachea
Urinary Bladder			

MISSING

Thymus

OBSERVATIONS

Clitoral Gland	Duct	Cyst	
Ear			
Note: EXTERNAL&MIDDLE EAR-NORMAL			
Kidney		Nephropathy	Chronic, Mild
Liver		Inflammation	Granulomatous, Multifocal, Mild
Mammary Gland	Duct	Cyst	
		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1			
Note: CYST TGLs = 6			
Mesentery	Fat	Necrosis	Focal, Moderate
Note: NECROSIS TGLs = 2			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[ Adenoma TGLS = 5 ]			
[ Angiectasis TGLS = 5 ]			
Spleen		Hyperplasia	Lymphoid, Focal, Marked
Uterus	Endometrium	Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 3			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:42

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

**Lab:** SRI

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**ANIMAL ID:** 46

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 734

**DOSE:** 0.06%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:42

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 47

TRT#: 2

SEX: Female

DAY ON TEST: 720

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Clitoral Gland	Ear	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	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Brain		Compression	
[ Compression TGLS = 3 ]			
Kidney		Nephropathy	Chronic, Mild
Liver		Cytologic Alterations	Focal, Mild
Note: CYTOLOGC ALTER TGLs = 5			
Mammary Gland		Adenocarcinoma	
	Duct	Cyst	
Note: ADENOCARC TGLs = 1			
Note: CYST TGLs = 4			
Pituitary Gland	Pars Distalis	Angiectasis	Marked
	Pars Distalis	Carcinoma	
[ Angiectasis TGLS = 2 ]			
[ Carcinoma TGLS = 2 ]			
Spleen		Pigmentation	Hemosiderin, Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: EXT.&MIDDLE EAR-NORMAL

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:42

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 47

TRT#: 4

SEX: Female

DAY ON TEST: 624

DOSE: 0.13%

DISP: Moribund

HISTO:

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Pituitary Gland  
Stomach - Glandular  
Urinary Bladder

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Salivary Glands  
Thymus  
Uterus

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Skin  
Thyroid Gland

**OBSERVATIONS**

Adrenal Gland  
Heart  
Kidney  
Mammary Gland  
Note: FIBROADENOMA TGLs = 1  
Spleen

Cortex

Hyperplasia  
Fibrosis  
Nephropathy  
Fibroadenoma

Focal, Mild  
Multifocal, Moderate  
Chronic, Minimal

Congestion  
Hematopoietic Cell Proliferation

Moderate  
Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:42

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 47

TRT#: 6

SEX: Female

DAY ON TEST: 456

DOSE: 0.06%

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Liver  
Pancreas  
Spleen  
Uterus

Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
Lymph Node - Mandibular  
Parathyroid Gland  
Thyroid Gland

Bone  
Heart  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Pituitary Gland  
Trachea

Bone Marrow  
Intestine Large - Cecum  
Kidney  
Ovary  
Salivary Glands  
Urinary Bladder

MISSING

Clitoral Gland  
Skin

Intestine Small - Duodenum

Intestine Small - Ileum

Intestine Small - Jejunum

INSUFFICIENT TISSUE

Stomach - Forestomach

Stomach - Glandular

OBSERVATIONS

Lung  
Note: INFLAMMATION TGLs = 5,6  
Note: EDEMA TGLs = 6  
Lymph Node  
Note: HYPERPLASIA TGLs = 1  
Note: CONGESTION TGLs = 7  
Mammary Gland  
Note: FIBROADENOMA TGLs = 2  
Nose  
Thymus  
Note: CONGESTION TGLs = 5  
Tissue NOS  
Note: HEMORRHAGE TGLs = 3  
Note: TISSUE NOS IS PERIRENAL FAT

Mediastinal  
Axillary

Lumen  
Lumen

Edema  
Inflammation

Congestion  
Hyperplasia

Fibroadenoma

Foreign Body  
Inflammation  
Congestion

Hemorrhage

Marked  
Chronic, Marked

Marked  
Lymphoid, Moderate

Moderate  
Suppurative, Moderate  
Marked

Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:42

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

**Lab:** SRI

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**ANIMAL ID:** 47

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 456

**DOSE:** 0.06%

**DISP:** Dead

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL 4 DETACHED ESOPHAGEAL MUCOSA-ARTIFACT.

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:42

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 48

TRT#: 2

SEX: Female

DAY ON TEST: 735

DOSE: UNTREATD CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
Parathyroid Gland  
Thymus  
Uterus

Adrenal Gland - Medulla  
Intestine Large - Colon  
Intestine Small - Jejunum  
Mammary Gland  
Salivary Glands  
Thyroid Gland

Brain  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Stomach - Forestomach  
Trachea

Esophagus  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
Ovary  
Stomach - Glandular  
Urinary Bladder

INSUFFICIENT TISSUE

Bone Marrow

OBSERVATIONS

Bone  
Note: HYPEROSTOSIS TGLs = 3  
Clitoral Gland  
Heart  
Kidney  
Liver  
Lung  
Note: ALV BRON CARC TGLs = 4  
Pancreas  
Pituitary Gland  
Skin  
Note: CYST EPITH INC TGLs = 2  
Spleen

Cranium  
Duct  
Acinus  
Pars Distalis  
Pars Distalis

Hyperostosis  
Osteopetrosis  
Cyst  
Fibrosis  
Nephropathy  
Basophilic Focus  
Alveolar/Bronchiolar Carcinoma  
Atrophy  
Cyst  
Hyperplasia  
Cyst Epithelial Inclusion  
Hematopoietic Cell Proliferation

Marked  
Multifocal, Mild  
Chronic, Moderate  
Multiple, Mild  
Focal, Mild  
Focal, Moderate  
Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:42

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 48

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Salivary Glands  
Stomach - Glandular  
Urinary Bladder

Bone  
Esophagus  
Intestine Small - Duodenum  
Liver  
Ovary  
Skin  
Thymus

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  
Trachea

OBSERVATIONS

Adrenal Gland  
Heart  
Kidney  
Lung  
    Note: CONGESTION   TGLs = 3  
Mammary Gland  
    Note: CYST        TGLs = 1,2  
Pituitary Gland  
    [ Adenoma TGLS = 4 ]  
    [ Angiectasis TGLS = 4 ]  
Uterus

Medulla  
  
Duct  
  
Pars Distalis  
Pars Distalis  
  
Endometrium

Pheochromocytoma Benign  
Fibrosis  
Nephropathy  
Congestion  
  
Cyst  
  
Adenoma  
Angiectasis  
  
Hyperplasia

Multifocal, Mild  
Chronic, Mild  
Mild  
  
  
Moderate  
  
Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:42

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 48

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Stomach - Forestomach  
Trachea

Bone  
Esophagus  
Intestine Small - Duodenum  
Kidney  
Nose  
Pituitary Gland  
Stomach - Glandular  
Urinary Bladder

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Salivary Glands  
Thymus  
Uterus

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Skin  
Thyroid Gland

OBSERVATIONS

Adrenal Gland  
Harderian Gland  
Heart  
Liver  
Mammary Gland

Cortex

Adenoma  
Fibrosis  
Fibrosis  
Basophilic Focus  
Fibroadenoma  
Hyperplasia

Marked  
Multifocal, Moderate  
Multiple, Mild  
Multiple  
Cystic, Moderate

Note: FIBROADENOMA TGLs = 1,2,3,4

Note: HYPERPLASIA TGLs = 1,2,5

Spleen

Congestion

Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:42

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 49

TRT#: 2

SEX: Female

DAY ON TEST: 661

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

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
Liver	Lung	Lymph Node - Mesenteric	Nose
Ovary	Pancreas	Parathyroid Gland	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

MISSING

Clitoral Gland	Lymph Node - Mandibular	Salivary Glands	Thymus
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OBSERVATIONS

Brain		Compression	
[ Compression TGLS = 4 ]			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Mammary Gland		Adenocarcinoma	
	Duct	Cyst	
		Fibroadenoma	
Note: FIBROADENOMA TGLs = 1,2			
Note: ADENOCARC TGLs = 3			
Note: CYST TGLs = 2			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Marked
[ Adenoma TGLS = 5 ]			
[ Angiectasis TGLS = 5 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:42

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 49

TRT#: 4

SEX: Female

DAY ON TEST: 733

DOSE: 0.13%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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
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

Adrenal Gland	Cortex	Degeneration	Fatty, Focal, Mild
	Cortex	Hyperplasia	Focal, Moderate
Bone Marrow		Hyperplasia	Reticulum Cell, Mild
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	Multiple, Mild
		Developmental Malformation	
Note: DEVELOP MALFOR TGLs = 6			
Lung		Congestion	Mild
Note: CONGESTION TGLs = 7			
Mammary Gland	Duct	Cyst	
		Fibroadenoma	Multiple
Note: FIBROADENOMA TGLs = 1,2,3,4			
Note: CYSTIC DUCTS-SLIDES 8&8B			
Note: CYST TGLs = 1,2,3,4,10			
Mesentery	Fat	Fibrosis	Focal, Moderate
	Fat	Necrosis	Focal, Moderate
Note: FIBROSIS TGLs = 5			
Note: NECROSIS TGLs = 5			
Pituitary Gland	Pars Distalis	Angiectasis	Marked
	Pars Distalis	Carcinoma	
[ Angiectasis TGLS = 8 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:42

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

**Lab:** SRI

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**ANIMAL ID:** 49

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 0.13%

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Carcinoma TGLS = 8 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:42

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 49

TRT#: 6

SEX: Female

DAY ON TEST: 720

DOSE: 0.06%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	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	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Gland	Medulla	Hyperplasia	Focal, Moderate
	Cortex	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 8			
Blood		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Brain		Astrocytoma Malignant	
Clitoral Gland	Duct	Cyst	
Note: CYST TGLs = 6			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Mild
Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
Note: HYPERPLASIA TGLs = 3			
Lung		Leukemia Mononuclear	
Lymph Node	Mandibular	Leukemia Mononuclear	
	Mesenteric	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
Note: LEUKEMIA MONUC TGLs = 2			
Mammary Gland	Duct	Cyst	
Note: CYST TGLs = 5			
Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Focal, Mild
		Leukemia Mononuclear	
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:42

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

**Lab:** SRI

---

**ANIMAL ID:** 49

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 720

**DOSE:** 0.06%

**DISP:** Moribund

**HISTO:**

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: LEUKEMIA MONUC TGLs = 7

Thyroid Gland

C Cell

Hyperplasia

Multifocal, Mild

Uterus

Polyp Stromal

Note: POLYP STROMAL TGLs = 1

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:42

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 50

TRT#: 2

SEX: Female

DAY ON TEST: 666

DOSE: UNTREATD CONTROL

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Bone Marrow  
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

Blood  
Esophagus  
Intestine Small - Duodenum  
Liver  
Ovary  
Skin  
Thymus

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Pancreas  
Spleen  
Trachea

OBSERVATIONS

Brain  
Heart  
Kidney  
    Note: NEPHROPATHY   TGLs = 1  
Lung  
    Note: CONGESTION    TGLs = 3  
Mammary Gland  
Pituitary Gland  
  
    Note: ADENOMA        TGLs = 2  
    Note: ANGIECTASIS   TGLs = 2  
Thyroid Gland

Duct  
Pars Distalis  
Pars Distalis

C Cell

Compression  
Fibrosis  
Nephropathy  
  
Congestion  
  
Cyst  
Adenoma  
Angiectasis

Hyperplasia

Multifocal, Marked  
Chronic, Marked  
  
Mild  
  
Moderate  
  
Focal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:42

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 50

TRT#: 4

SEX: Female

DAY ON TEST: 699

DOSE: 0.13%

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Parathyroid Gland  
Thymus

Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Salivary Glands  
Trachea

Bone  
Heart  
Intestine Small - Duodenum  
Liver  
Nose  
Stomach - Forestomach  
Urinary Bladder

Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Stomach - Glandular  
Uterus

OBSERVATIONS

Bone Marrow  
Kidney  
Mammary Gland

Myeloid Cell  
  
Duct

Hyperplasia  
Nephropathy  
Cyst  
Fibroadenoma

Moderate  
Chronic, Minimal

Note: CYST TGLs = 7  
Note: FIBROADENOMA TGLs = 1

Pancreas  
Pituitary Gland

Acinus  
Pars Distalis  
Pars Distalis

Atrophy  
Adenoma  
Angiectasis

Focal, Mild  
  
Moderate

[ Adenoma TGLS = 6 ]  
[ Angiectasis TGLS = 6 ]

Skin  
Note: BASAL CEL CARC TGLs = 2

Spleen  
Thyroid Gland

C Cell

Basal Cell Carcinoma  
  
Hematopoietic Cell Proliferation  
Hyperplasia

Moderate  
Focal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05051-01

Test Type: CHRONIC

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 10/23/2014

Time Report Requested: 13:53:42

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 50

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 0.06%

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Ear	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	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Clitoral Gland		Adenoma	
	Duct	Cyst	
Note: ADENOMA	TGLs = 2		
Note: CYST	TGLs = 2		
Ear			
Note: EXTERNAL& MIDDLE EAR-NORMAL			
Heart		Fibrosis	Multifocal, Mild
Kidney		Nephropathy	Chronic, Moderate
Liver			
Note: STAIN ARTIFACT IN LIVER SINUSOIDS			
Lung	Alveolar Epith	Hyperplasia	Focal, Minimal
Mammary Gland		Fibroadenoma	
		Hyperplasia	Cystic, Marked
Note: FIBROADENOMA	TGLs = 1		
Note: HYPERPLASIA	TGLs = 1,4		
Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Carcinoma	
[ Angiectasis TGLS = 3 ]			
[ Carcinoma TGLS = 3 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05051-01

**Test Type:** CHRONIC

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nitrofurantoin

**CAS Number:** 67-20-9

**Date Report Requested:** 10/23/2014

**Time Report Requested:** 13:53:42

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

**Lab:** SRI

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

\* PROTOCOL REQUIRED TISSUE