

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

<b>C Number:</b>	C55878
<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>	06/06/1988

**Experiment Number:** 05002-06  
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**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
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**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 1                      **TRT#:** 1                      **SEX:** Male                      **DAY ON TEST:** 729  
**DOSE:** VEHICLE CONTROL                      **DISP:** Terminal Sacrifice                      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	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	Nose
Pancreas	Parathyroid Gland	Penis	Pituitary Gland
Prostate	Salivary Glands	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex	Adenoma	
	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Cyst	
Note: CONTAINS KERATINIZED MATERIAL.			
Note: THE CYST IS IN THE MENINGES AND			
Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic, Mild
Note: ECTASIA            TGLs = 5-7-1			
Skin		Acanthosis	Mild
		Inflammation	Chronic, Mild
		Pigmentation	Mild
Note: ACANTHOSIS        TGLs = 3-21			
Note: INFLAMMATION    TGLs = 3-21			
Testes	Seminif Tub	Atrophy	Mild
		Granuloma Sperm	Moderate
		Mineralization	Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
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**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
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**Date Report Requested:** 10/20/2014  
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**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> 729
	<b>DOSE:</b> VEHICLE 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
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Testes	Thyroid Gland
Trachea	Urinary Bladder		

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**MISSING**

Mammary Gland	Thymus
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC TGLs = 3-23,4-24,5-25			
Lung		Hepatocellular Carcinoma	Metastatic (Liver)

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 473
	<b>DOSE:</b> VEHICLE 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	Epididymis	Esophagus	Gallbladder
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	Salivary Glands
Skin	Stomach - Glandular	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

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**MISSING**

Mammary Gland	Prostate
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**OBSERVATIONS**

Kidney	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 1-21 ]		
Spleen		Hematopoietic Cell Proliferation	Moderate
Stomach	Forestomach	Squamous Cell Papilloma	

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> VEHICLE 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	Blood	Bone	Brain
Epididymis	Esophagus	Gallbladder	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	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Preputial Gland	Prostate	Salivary Glands
Stomach - Forestomach	Stomach - Glandular	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

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**MISSING**

Mammary Gland

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Proliferation	Moderate
Kidney		Inflammation	Chronic, Mild
Lung		Alveolar/Bronchiolar Adenoma	
Note: ALV BRON ADEN TGLs = 7-4			
Lymph Node	Inguinal	Hemangiosarcoma	
	Mesenteric	Hemangiosarcoma	
Note: HEMANGIOSARC TGLs = 4-23			
Note: HEMANGIOSARC TGLs = 6-6-1			
Skin	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC TGLs = 3-22			
Spleen		Hemangiosarcoma	
		Hematopoietic Cell Proliferation	Moderate
[ Hematopoietic Cell Proliferation TGLS = 5-24 ]			

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 5                      **TRT#:** 1                      **SEX:** Male                      **DAY ON TEST:** 473  
**DOSE:** VEHICLE CONTROL                      **DISP:** Moribund                      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Gallbladder
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	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**OBSERVATIONS**

Kidney		Casts Protein	Moderate
		Cyst	
		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Marked
Note: REGENERATION    TGLs = 1-6			
Note: CASTS PROTEIN    TGLs = 1-6			
[ Regeneration TGLS = 1-6 ]			
Liver		Hepatocellular Carcinoma	
		Mineralization	Marked
	Lobules	Necrosis	Marked
Note: MINERALIZATION    TGLs = 3-22			
Note: NECROSIS            TGLs = 3-22			
Note: HEPATOCLR CARC    TGLs = 2-21			
Lymph Node	Mesenteric	Hemorrhage	Moderate
Spleen		Hematopoietic Cell Proliferation	Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 1 <b>DOSE:</b> VEHICLE CONTROL	<b>SEX:</b> Male <b>DISP:</b> Dead	<b>DAY ON TEST:</b> 385 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Gallbladder	Heart	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Prostate	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

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**MISSING**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Intestine Large - Cecum	Intestine Small - Ileum
Intestine Small - Jejunum	Mammary Gland	Pituitary Gland	

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**OBSERVATIONS**

Kidney	Inflammation	Chronic, Minimal
Liver	Hepatocellular Carcinoma	
Note: HEPATOCLR CARC TGLs = 1-21		
Lung	Inflammation	Chronic, Minimal
Spleen	Hematopoietic Cell Proliferation	Mild

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 7                      **TRT#:** 1                      **SEX:** Male                      **DAY ON TEST:** 729  
**DOSE:** VEHICLE CONTROL                      **DISP:** Terminal Sacrifice                      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Blood	Bone	Brain
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mesenteric	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Trachea			

**MISSING**

Intestine Large - Colon	Intestine Small - Ileum	Mammary Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Minimal
Bone Marrow		Proliferation	Moderate
Harderian Gland		Adenoma	
Note: ADENOMA      TGLs = 9-25			
Kidney	Renal Tubule	Atrophy	Moderate
		Inflammation	Suppurative, Marked
		Inflammation	Chronic, Marked
Note: INFLAMMATION      TGLs = 6-6			
Note: ATROPHY      TGLs = 6-6			
Note: INFLAMMATION      TGLs = 7-6			
Liver		Hematopoietic Cell Proliferation	Mild
		Hepatocellular Adenoma	
Note: [ HEPATOCLR ADEN ]      TGLs = 8-24			
Lymph Node	Lymphatic, Mandibular	Dilatation	Moderate
Preputial Gland		Inflammation	Chronic, Marked
		Inflammation	Suppurative, Marked
Note: INFLAMMATION      TGLs = 4-23			
Note: INFLAMMATION      TGLs = 4-23			
Prostate		Inflammation	Suppurative, Marked
Skin		Acanthosis	Moderate

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 1 <b>DOSE:</b> VEHICLE CONTROL	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 729 <b>HISTO:</b>
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
		Pigmentation	Mild
		Ulcer	Moderate
Note: ACANTHOSIS TGLs = 2-21 Note: THE ULCER IS PRESENT ON SLIDES 10 AND 11.			
Spleen		Hematopoietic Cell Proliferation	Moderate
Note: HEMA CELL PROL TGLs = 5-2			
Stomach	Forestomach	Squamous Cell Papilloma	
Note: PAPILLOMA SQUA TGLs = 10-5-1			
Urinary Bladder	Mucosa	Hyperplasia Inflammation	Mild Chronic, Mild

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

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 1 <b>DOSE:</b> VEHICLE CONTROL	<b>SEX:</b> Male <b>DISP:</b> Dead	<b>DAY ON TEST:</b> 441 <b>HISTO:</b>
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**ORGAN AND ACCOUNTABLE SITE STATUS**

<b>NORMAL</b>			
Bone	Esophagus	Heart	Intestine Large - Colon
Intestine Large - Rectum	Nose	Skin	Testes
Trachea			
<b>MISSING</b>			
Gallbladder	Mammary Gland	Pituitary Gland	Thymus
<b>AUTO PRECLUDES DIAG.</b>			
Intestine Large - Cecum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum

**OBSERVATIONS**

Adrenal Gland	Cortex	Lymphoma Malignant Lymphocytic	
	Medulla	Lymphoma Malignant Lymphocytic	
Note: LYMPH MAL LYMP	TGLs = 5-6-1		
Note: LYMPH MAL LYMP	TGLs = 5-6-1		
Blood		Anemia	Marked
		Lymphoma Malignant Lymphocytic	
Bone Marrow		Lymphoma Malignant Lymphocytic	
Brain		Mineralization	Minimal
Epididymis		Lymphoma Malignant Lymphocytic	
Harderian Gland		Lymphoma Malignant Lymphocytic	
Islets, Pancreatic		Lymphoma Malignant Lymphocytic	
Kidney		Lymphoma Malignant Lymphocytic	
Liver		Lymphoma Malignant Lymphocytic	
Note: LYMPH MAL LYMP	TGLs = 7-5,8-5		
Lung		Lymphoma Malignant Lymphocytic	
Note: LYMPH MAL LYMP	TGLs = 9-4,11-4		
Lymph Node	Inguinal	Lymphoma Malignant Lymphocytic	
	Mandibular	Lymphoma Malignant Lymphocytic	
	Mediastinal	Lymphoma Malignant Lymphocytic	
	Mesenteric	Lymphoma Malignant Lymphocytic	
Note: LYMPH MAL LYMP	TGLs = 10-2		
Note: LYMPH MAL LYMP	TGLs = 10-8		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**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> 441
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Dead	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LYMPH MAL LYMP TGLs = 10-6-1

[ Lymphoma Malignant Lymphocytic TGLS = 10-2 ]

Pancreas		Lymphoma Malignant Lymphocytic
Parathyroid Gland		Cyst
Prostate		Lymphoma Malignant Lymphocytic
Salivary Glands		Lymphoma Malignant Lymphocytic
Note: LYMPH MAL LYMP TGLs = 2-2		
Seminal Vesicle		Lymphoma Malignant Lymphocytic
Skeletal Muscle		Lymphoma Malignant Lymphocytic
Spleen		Lymphoma Malignant Lymphocytic
Note: LYMPH MAL LYMP TGLs = 4-2		
Stomach	Forestomach	Lymphoma Malignant Lymphocytic
	Glandular	Lymphoma Malignant Lymphocytic
Thyroid Gland		Lymphoma Malignant Lymphocytic
Tissue NOS		Lymphoma Malignant Lymphocytic
Note: LYMPH MAL LYMP TGLs = 6		
Note: TISSUE NOS IS THORACIC FLUID.		
Urinary Bladder		Lymphoma Malignant Lymphocytic
Note: LYMPH MAL LYMP TGLs = 3-6-1		

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
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**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
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**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 9                      **TRT#:** 1                      **SEX:** Male                      **DAY ON TEST:** 703  
**DOSE:** VEHICLE CONTROL                      **DISP:** Moribund                      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Epididymis
Esophagus	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Pituitary Gland	Preputial Gland	Prostate
Salivary Glands	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland	Parathyroid Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Proliferation	Moderate
Gallbladder		Fibrosis	Moderate
		Inflammation	Chronic, Moderate
		Mineralization	Moderate
Kidney		Cyst	
		Mineralization	Minimal
Liver		Hepatocellular Carcinoma	
		Inflammation	Chronic, Mild
		Mineralization	Marked
	Lobules	Necrosis	Moderate
Note: HEPATOCLR CARC TGLs = 4-23,5-24 [ Necrosis TGLS = 5-24 ]			
Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Histiocyte, Mild
[ Infiltration Cellular TGLS = 6-4 ]			
Skin	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC TGLs = 1-21,2-22			
Spleen		Hematopoietic Cell Proliferation	Moderate
[ Hematopoietic Cell Proliferation TGLS = 3-2 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 703
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Moribund	<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:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 10

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Gallbladder	Mammary Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Lymphoma Malignant Mixed	
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Cyst	
	Renal Tubule	Regeneration	Mild
Liver		Hepatocellular Adenoma	
		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 4-5 Note: [ HEPATOCLR ADEN ] TGLs = 5-21			
Spleen		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 3-2			
Tooth		Dysplasia	Mild

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 11

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 633

**DOSE:** VEHICLE CONTROL

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Epididymis	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Jejunum	Islets, Pancreatic
Lung	Lymph Node - Mesenteric	Nose	Pancreas
Parathyroid Gland	Prostate	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Mammary Gland	Pituitary Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex	Developmental Malformation	
Note: TISSUE WITHIN THE CORTEX AND BENEATH THE CAPSULE.			
Note: THE DEVELOP MALFOR CONSISTS OF ISLANDS OF MEDULLARY			
Bone Marrow		Proliferation	Mild
Brain		Mineralization	Mild
Intestine Small	Ileum	Hyperplasia	Lymphoid, Moderate
Kidney	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC TGLs = 6-25			
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Moderate
Skin		Acanthosis	Moderate
	Subcut Tiss	Fibrosarcoma	
		Ulcer	Moderate
Note: FIBROSARC TGLs = 5-24			
Note: ACANTHOSIS TGLs = 1-21			
Note: ULCER TGLs = 2-21,3-22			
Spleen		Hematopoietic Cell Proliferation	Moderate

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 12

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Gallbladder
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	Prostate
Skin	Testes	Thymus	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland

**OBSERVATIONS**

Harderian Gland		Adenoma	
Kidney		Cyst	
		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Mild
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC TGLs = 4-22			
Preputial Gland		Ectasia	Moderate
Note: ECTASIA TGLs = 2-7-1			
Salivary Glands		Inflammation	Chronic, Minimal
Spleen		Hyperplasia	Lymphoid, Mild
Note: HYPERPLASIA TGLs = 3-2			
Stomach	Forestomach	Diverticulum	Moderate
	Forestomach	Mineralization	Moderate
	Glandular	Mineralization	Mild
	Forestomach	Squamous Cell Papilloma	
[ Diverticulum TGLS = 5-5-1 ]			
Thyroid Gland	Follicular Cel	Hyperplasia	Moderate

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 13

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Colon  
Islets, Pancreatic  
Pancreas  
Skin  
Testes  
Urinary Bladder

Bone  
Gallbladder  
Intestine Small - Duodenum  
Liver  
Parathyroid Gland  
Spleen  
Thymus

Bone Marrow  
Heart  
Intestine Small - Ileum  
Lung  
Preputial Gland  
Stomach - Forestomach  
Thyroid Gland

Epididymis  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Prostate  
Stomach - Glandular  
Trachea

**MISSING**

Mammary Gland

Pituitary Gland

**INSUFFICIENT TISSUE**

Intestine Large - Rectum

**OBSERVATIONS**

Adrenal Gland  
Brain  
Kidney

Cortex, Spindle Cell

Hyperplasia  
Mineralization  
Inflammation  
Mineralization

Mild  
Minimal  
Chronic, Mild

Lymph Node  
Nose  
Salivary Glands  
Tooth

Mesenteric

Hemorrhage  
Exudate  
Inflammation  
Dysplasia

Mild  
Minimal  
Chronic, Mild  
Moderate

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 14

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Jejunum	Islets, Pancreatic	Lymph Node - Mandibular	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Skin	Spleen	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Medulla	Infiltration Cellular	Mononuclear CI, Moderate
Intestine Small	Ileum	Hyperplasia	Lymphoid, Marked
Note: HYPERPLASIA TGLs = 3-23			
Kidney		Inflammation	Chronic, Minimal
Liver		Hepatocellular Adenoma	
Note: HEPATOCLR ADEN TGLs = 5-24			
Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 6-4 ]			
Lymph Node	Mesenteric	Hemorrhage	Moderate
	Mesenteric	Hyperplasia	Lymphoid, Moderate
Note: HYPERPLASIA TGLs = 4-6-1			
Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic, Moderate
Note: INFLAMMATION TGLs = 2-22			
Note: ECTASIA TGLs = 2-22			
Salivary Glands		Inflammation	Chronic, Mild
Stomach	Forestomach	Squamous Cell Papilloma	
[ Squamous Cell Papilloma TGLS = 7-5-1 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 15

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 578

**DOSE:** VEHICLE CONTROL

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Kidney	Liver
Lung	Lymph Node - Mandibular	Pancreas	Parathyroid Gland
Prostate	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Lymph Node - Mesenteric	Mammary Gland
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**OBSERVATIONS**

Brain		Mineralization	Moderate
Islets, Pancreatic		Hyperplasia	Mild
Nose		Foreign Body	Mild
Pituitary Gland	Pars Distalis	Cyst	
Salivary Glands		Fibrosarcoma	Metastatic (Skin)
Skin	Subcut Tiss	Edema	Moderate
	Subcut Tiss	Fibrosarcoma	
		Inflammation	Chronic, Moderate

Note: FIBROSARC TGLs = 3-22  
Note: EDEMA TGLs = 1-21,2-8

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 16

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 688

**DOSE:** VEHICLE CONTROL

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Testes	Thymus
Trachea	Urinary Bladder		

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland Note: PHEOCHROM MAL TGLs = 3-23	Medulla	Pheochromocytoma Malignant	
Bone Marrow		Necrosis	Mild
Brain [ Necrosis TGLS = 5-1 ]		Necrosis	Moderate
Epididymis		Atypia Cellular	
Intestine Large	Cecum	Edema	Moderate
	Cecum	Inflammation	Suppurative, Moderate
Islets, Pancreatic Note: THE HYPERPLASIA IS PRESENT ON SLIDE 21.		Hyperplasia	Moderate
Kidney		Inflammation	Chronic, Mild
	Glomerulus	Necrosis	Marked
	Renal Tubule	Necrosis	Marked
	Renal Tubule	Regeneration	Moderate
Note: NECROSIS TGLs = 4-6			
Note: NECROSIS TGLs = 4-6			
Liver	Kupffer Cell	Hyperplasia	Moderate
	Kupffer Cell	Pigmentation	Mild
Spleen		Hematopoietic Cell Proliferation	Mild
Thyroid Gland		Inflammation	Chronic, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 16

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 688

**DOSE:** VEHICLE 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:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 17

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Jejunum	Islets, Pancreatic	Lung	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Stomach - Forestomach	Stomach - Glandular	Thymus
Trachea	Urinary Bladder		

**MISSING**

Lymph Node - Mandibular	Mammary Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex	Adenoma	
Intestine Small	Ileum	Hyperplasia	Lymphoid, Moderate
Note: HYPERPLASIA TGLs = 4-22			
Kidney		Inflammation	Chronic, Minimal
Liver		Hepatocellular Adenoma	
		Inflammation	Chronic, Minimal
Note: HEPATOCLR ADEN TGLs = 5-23			
Lymph Node	Mesenteric	Hemorrhage	Moderate
Note: HEMORRHAGE TGLs = 3-6-1			
Salivary Glands		Inflammation	Chronic, Mild
Skin		Acanthosis	Mild
Note: ACANTHOSIS TGLs = 1-21			
Spleen		Hyperplasia	Lymphoid, Mild
Note: HYPERPLASIA TGLs = 2-2			
Testes		Mineralization	Mild
Thyroid Gland	Follicular Cel	Adenoma	

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 18

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Blood	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Lymph Node - Mandibular	Nose
Pancreas	Parathyroid Gland	Prostate	Seminal Vesicle
Skin	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Trachea	Urinary Bladder	

**MISSING**

Mammary Gland	Pituitary Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex	Hypertrophy	Focal, Moderate
	Cortex	Vacuolization Cytoplasmic	Mild
Brain		Mineralization	Moderate
Islets, Pancreatic		Hyperplasia	Moderate
Kidney		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Adenoma	
Note: HEPATOCLR ADEN TGLs = 5-21			
Lung		Inflammation	Chronic, Mild
Lymph Node	Mesenteric	Hemorrhage	Mild
Preputial Gland		Ectasia	Marked
		Inflammation	Chronic, Mild
Note: ECTASIA TGLs = 2-7-1			
Note: INFLAMMATION TGLs = 2-7-1			
Salivary Glands		Inflammation	Chronic, Mild
Spleen		Hyperplasia	Lymphoid, Mild
Note: HYPERPLASIA TGLs = 4-2			
Thyroid Gland	Follicular Cel	Carcinoma	
Tooth		Dysplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 18

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 19

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Blood	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Pancreas	Pituitary Gland	Prostate
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland	Parathyroid Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Moderate
Islets, Pancreatic		Hyperplasia	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Adenoma	
		Inflammation	Chronic, Mild
	Lobules	Necrosis	Minimal
Note: HEPATOCLR ADEN TGLs = 4-23			
Lung		Alveolar/Bronchiolar Adenoma	
Spleen		Hyperplasia	Lymphoid, Mild
Note: HYPERPLASIA TGLs = 3-2			
Tooth		Inflammation	Suppurative, Mild

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 20

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	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	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Lymph Node - Mandibular	Mammary Gland
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**OBSERVATIONS**

Brain		Mineralization	Moderate
Kidney		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Minimal
Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic, Mild
Note: INFLAMMATION TGLs = 3-7-1			
Note: ECTASIA TGLs = 3-7-1			
Salivary Glands		Inflammation	Chronic, Mild

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 21	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> VEHICLE 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	Epididymis
Esophagus	Gallbladder	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Testes	Thyroid Gland
Trachea	Urinary Bladder		

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**MISSING**

Mammary Gland	Thymus
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Moderate
Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney	Renal Tubule	Atrophy	Mild
	Renal Tubule	Regeneration	Moderate
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC	TGLs = 2-23		
Tooth		Dysplasia	Marked

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 22

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 721

**DOSE:** VEHICLE CONTROL

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Epididymis	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Islets, Pancreatic
Lung	Lymph Node - Mandibular	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland	Salivary Glands
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Proliferation	Moderate
Brain		Mineralization	Moderate
Intestine Small	Jejunum	Inflammation	Suppurative, Marked
Note: INFLAMMATION TGLs = 7-25			
Kidney	Renal Tubule	Casts Protein	Mild
		Regeneration	Moderate
Liver		Hepatocellular Carcinoma	
		Mineralization	Marked
	Lobules	Necrosis	Marked
	Hepatocyte	Vacuolization Cytoplasmic	Moderate
Note: HEPATOCLR CARC TGLs = 5-23			
Note: MINERALIZATION TGLs = 6-24			
Note: NECROSIS TGLs = 6-24			
Lymph Node	Mediastinal	Hemorrhage	Moderate
	Mesenteric	Hemorrhage	Moderate
	Mesenteric	Hyperplasia	Lymphoid, Mild
	Mediastinal	Inflammation	Suppurative, Moderate
	Mesenteric	Necrosis	Moderate
Mesentery	Fat	Hemorrhage	Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**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> 721
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: NECROSIS	TGLs = 4-5,7-25	Fat	Necrosis	Marked
Note: HEMORRHAGE	TGLs = 4-5,7-25			
Skin		Subcut Tiss	Edema	Moderate
Note: EDEMA	TGLs = 3-8			
Spleen			Hematopoietic Cell Proliferation	Mild
Testes		Seminif Tub	Atrophy	Minimal

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 23      **TRT#:** 1      **SEX:** Male      **DAY ON TEST:** 729  
**DOSE:** VEHICLE CONTROL      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Blood	Bone
Bone Marrow	Brain	Epididymis	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Pancreas	Pituitary Gland	Prostate
Salivary Glands	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland	Parathyroid Gland	Thymus
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**OBSERVATIONS**

Liver		Hepatocellular Adenoma	
Note: [ HEPATOCLR ADEN ] TGLs = 5-23			
Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 6-4 ]			
Skin		Acanthosis	Moderate
	Subcut Tiss	Fibrosarcoma	
		Pigmentation	Minimal
		Ulcer	Moderate
Note: FIBROSARC TGLs = 4-22			
[ Acanthosis TGLS = 2-21 ]			
[ Ulcer TGLS = 3-21 ]			
Tooth		Dysplasia	Marked

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 24	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> VEHICLE 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	Epididymis
Esophagus	Gallbladder	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	Nose
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Trachea	Urinary Bladder	

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**MISSING**

Mammary Gland	Thymus
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Mild
Pancreas		Atrophy	Mild
Thyroid Gland	Follicular Cel	Hyperplasia	Mild

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 25	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 618
	<b>DOSE:</b> VEHICLE 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
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Kidney	Liver	Lung
Lymph Node - Mandibular	Nose	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

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**MISSING**

Mammary Gland

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**OBSERVATIONS**

Brain		Mineralization	Minimal
Intestine Small	Jejunum	Hyperplasia	Lymphoid, Marked
Note: HYPERPLASIA TGLs = 4-22			
Islets, Pancreatic		Hyperplasia	Marked
Lymph Node	Mesenteric	Hyperplasia	Lymphoid, Moderate
Note: HYPERPLASIA TGLs = 3-6-1			
Pancreas		Atrophy	Minimal
Stomach	Glandular	Mineralization	Minimal
Tooth		Dysplasia	Moderate

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 26	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> VEHICLE 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
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

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**MISSING**

Mammary Gland

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Kidney		Inflammation	Chronic, Minimal
Salivary Glands		Inflammation	Chronic, Moderate
Testes		Mineralization	Mild

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 27	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> VEHICLE 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 - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Kidney
Liver	Lung	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Stomach - Forestomach	Stomach - Glandular	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

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**MISSING**

Lymph Node - Mandibular	Mammary Gland
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**OBSERVATIONS**

Islets, Pancreatic		Hyperplasia	Mild
Lymph Node	Mesenteric	Hemorrhage	Moderate
Preputial Gland		Ectasia	Moderate
Note: ECTASIA TGLs = 3-7-1			
Skin		Acanthosis	Minimal
Note: ACANTHOSIS TGLs = 2-22			
Spleen		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 4-2 ]			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 28	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> VEHICLE 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
Epididymis	Esophagus	Eye	Gallbladder
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
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

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**MISSING**

Mammary Gland

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell Cortex	Hyperplasia Hypertrophy Adenoma	Mild Focal, Moderate
Harderian Gland Note: ADENOMA TGLs = 5-12			
Kidney		Mineralization	Minimal
Lung [ Alveolar/Bronchiolar Adenoma TGLS = 4-4 ]		Alveolar/Bronchiolar Adenoma	
Tooth Note: DYSPLASIA TGLs = 2-11,2-22		Dysplasia	Moderate

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 29

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone Marrow	Epididymis
Esophagus	Gallbladder	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	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Mammary Gland

**OBSERVATIONS**

Bone		Hyperostosis	Moderate
Brain		Mineralization	Moderate
Harderian Gland		Adenoma	
Note: ADENOMA	TGLs = 2-22		
Kidney		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC	TGLs = 1-21		
Lymph Node	Mesenteric	Hemorrhage	Mild
	Mesenteric	Infiltration Cellular	Megakaryocyte, Moderate
Testes	Seminif Tub	Atrophy	Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 30

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Liver	Lung
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Mild
Harderian Gland		Adenoma	
Note: ADENOMA	TGLs = 8-23		
Kidney		Inflammation	Chronic, Mild
Lymph Node	Mesenteric	Hemorrhage	Mild
	Mandibular	Hyperplasia	Plasma Cell, Marked
Note: HYPERPLASIA	TGLs = 4-2		
Note: HEMORRHAGE	TGLs = 7-6-1		
Preputial Gland		Ectasia	Marked
		Inflammation	Chronic, Moderate
		Inflammation	Suppurative, Moderate
Note: ECTASIA	TGLs = 5-7-1		
Note: INFLAMMATION	TGLs = 5-7-1		
Note: INFLAMMATION	TGLs = 5-7-1		
Skin		Acanthosis	Moderate
		Exudate	
	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC	TGLs = 3-22		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 30

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: THE ACANTHOSIS & EXUDATE ARE PRESENT ON SLIDE #12.

Spleen

Hematopoietic Cell Proliferation

Moderate

Note: HEMA CELL PROL TGLs = 6-2

Trachea

Note: THE TRACHEA IS PRESENT ON SLIDE #4.

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**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> 729
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Bone Marrow	Epididymis	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Liver	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Testes	Thyroid Gland
Trachea	Urinary Bladder		

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**MISSING**

Adrenal Gland - Medulla	Mammary Gland	Thymus
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**INSUFFICIENT TISSUE**

Adrenal Gland - Cortex

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**OBSERVATIONS**

Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Moderate
Kidney	Renal Tubule	Regeneration	Mild
Lung		Alveolar/Bronchiolar Adenoma	

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 32	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> VEHICLE 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 - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Testes
Thyroid Gland	Trachea	Urinary Bladder	

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**MISSING**

Gallbladder	Mammary Gland
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**OBSERVATIONS**

Brain		Mineralization	Moderate
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Inflammation	Chronic, Minimal
	Renal Tubule	Regeneration	Minimal
Preputial Gland		Inflammation	Chronic, Mild
Note: INFLAMMATION	TGLs = 2-7-1		
Thymus		Cyst	

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 33	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 601
	<b>DOSE:</b> VEHICLE 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	Epididymis	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Pancreas
Parathyroid Gland	Prostate	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

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**MISSING**

Gallbladder	Mammary Gland
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**OBSERVATIONS**

Kidney		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Minimal
Liver		Basophilic Focus	
		Mineralization	Moderate
	Lobules	Necrosis	Marked
Note: NECROSIS TGLs = 3-23 [ Necrosis TGLS = 3-23 ]			
Pituitary Gland	Pars Distalis	Cyst	

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 34

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Skin
Spleen	Stomach - Glandular	Testes	Thyroid Gland
Trachea			

**MISSING**

Lymph Node - Mandibular	Mammary Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Eye	Cornea	Cataract Inflammation	Minimal Chronic, Mild
Note: CATARACT TGLs = 1-44			
Harderian Gland		Adenoma	
Note: ADENOMA TGLs = 3-21			
Kidney		Inflammation	Chronic, Minimal
Lung	Alveolar Epith	Hyperplasia Inflammation	Minimal Chronic, Minimal
Preputial Gland		Ectasia Inflammation	Mild Chronic, Moderate
Note: ECTASIA TGLs = 2-7-1			
Note: INFLAMMATION TGLs = 2-7-1			
Stomach	Forestomach	Squamous Cell Papilloma	
Note: PAPILOMA SQUA TGLs = 4-5-1			
Thymus		Cyst	
Urinary Bladder		Inflammation	Chronic, Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 35	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> VEHICLE 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	Epididymis
Esophagus	Gallbladder	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	Mesentery
Pancreas	Parathyroid Gland	Prostate	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

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**MISSING**

Mammary Gland	Pituitary Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Moderate
Kidney			
Note: THE NECROSIS IS PRESENT WITHIN THE PAPILLA.			
Nose		Exudate	

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 36	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> VEHICLE 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	Epididymis
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

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**MISSING**

Esophagus	Mammary Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex	Adenoma	
Brain		Mineralization	Minimal
Kidney		Metaplasia	Osseous, Mild
	Renal Tubule	Regeneration	Minimal

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**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> 729
	<b>DOSE:</b> VEHICLE 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 - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Gallbladder	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	Pancreas	Pituitary Gland	Prostate
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Urinary Bladder			

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**MISSING**

Esophagus	Mammary Gland	Parathyroid Gland	Thyroid Gland
Trachea			

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**OBSERVATIONS**

Brain		Mineralization	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Lymph Node	Mesenteric	Hemorrhage	Moderate
Nose		Exudate	
Salivary Glands		Inflammation	Chronic, Minimal
Skin	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC      TGLs = 3-23			
Testes	Seminif Tub	Atrophy	Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05002-06

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: gamma-Butyrolactone

CAS Number: 96-48-0

Date Report Requested: 10/20/2014

Time Report Requested: 03:23:07

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 38

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: VEHICLE CONTROL

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Gallbladder	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	Pancreas
Prostate	Salivary Glands	Seminal Vesicle	Spleen
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

MISSING

Mammary Gland	Parathyroid Gland
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OBSERVATIONS

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Kidney		Hydronephrosis	Mild
	Renal Tubule	Regeneration	Minimal
Lung		Alveolar/Bronchiolar Adenoma	
Note: ALV BRON ADEN TGLs = 4-4			
Pituitary Gland	Pars Distalis	Cyst	
Skin	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC TGLs = 2-22			
Stomach	Forestomach	Squamous Cell Papilloma	
Note: PAPILOMA SQUA TGLs = 5-5-1			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 39      **TRT#:** 1      **SEX:** Male      **DAY ON TEST:** 729  
**DOSE:** VEHICLE CONTROL      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland

**OBSERVATIONS**

Brain		Mineralization	Moderate
Eye	Cornea	Hyperplasia	Moderate
	Cornea	Inflammation	Granulomatous, Marked
Note: INFLAMMATION    TGLs = 1-44			
Harderian Gland		Adenoma	
Note: ADENOMA        TGLs = 6-23			
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC    TGLs = 5-22			
Preputial Gland		Inflammation	Chronic, Marked
		Inflammation	Suppurative, Marked
Note: INFLAMMATION    TGLs = 3-7-1			
[ Inflammation TGLS = 3-7-1 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 40	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> VEHICLE 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 - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	Heart
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	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Skin	Spleen	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

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**MISSING**

Mammary Gland

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**OBSERVATIONS**

Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Stomach	Forestomach	Squamous Cell Papilloma	

Note: PAPILLOMA SQUA TGLs = 3-5-1

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 41

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 175

**DOSE:** VEHICLE CONTROL

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland

**OBSERVATIONS**

Kidney		Hemorrhage	Mild
Note: HEMORRHAGE	TGLs = 6-6		
Seminal Vesicle		Inflammation	Suppurative, Mild
Skin		Fibrosis	Marked
		Inflammation	Suppurative, Moderate
Note: THE INFLAMMATION IS PRESENT ON SLIDE 10.			
Note: THE FIBROSIS IS PRESENT ON SLIDE 8.			
Spleen	Lymph Follic	Depletion Cellular	Mild
[ Depletion Cellular TGLS = 5-2 ]			
Urethra		Hemorrhage	Marked
[ Hemorrhage TGLS = 4-7 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 42      **TRT#:** 1      **SEX:** Male      **DAY ON TEST:** 729  
**DOSE:** VEHICLE CONTROL      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Brain	Epididymis
Esophagus	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Stomach - Forestomach	Stomach - Glandular
Testes	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland	Thymus
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**INSUFFICIENT TISSUE**

Gallbladder

**OBSERVATIONS**

Adrenal Gland	Medulla	Hyperplasia	Mild
Bone Marrow		Proliferation	Mild
Liver		Hemangiosarcoma	
		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC	TGLs = 4-23		
Note: HEMANGIOSARC	TGLs = 5-24		
Salivary Glands		Inflammation	Chronic, Minimal
Skin		Acanthosis	Moderate
	Subcut Tiss	Fibrosarcoma	
		Mineralization	Moderate
Note: MINERALIZATION	TGLs = 2-21		
Note: ACANTHOSIS	TGLs = 1-21		
Note: FIBROSARC	TGLs = 6-25, 6-25-1		
Spleen		Hematopoietic Cell Proliferation	Mild

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 43      **TRT#:** 1      **SEX:** Male      **DAY ON TEST:** 729  
**DOSE:** VEHICLE CONTROL      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Lymph Node - Mandibular	Mammary Gland	Salivary Glands
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**OBSERVATIONS**

Brain		Mineralization	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Liver		Lymphoma Malignant Undifferentiated Cell Type	
Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Histiocyte, Mild
Note: ALV BRON ADEN    TGLs = 9-4,10-5			
Lymph Node	Mesenteric	Hemorrhage	Moderate
	Lumbar	Lymphoma Malignant Undifferentiated Cell Type	
	Mesenteric	Lymphoma Malignant Undifferentiated Cell Type	
Note: LYMPH MAL UNDF    TGLs = 8-23			
Note: HEMORRHAGE    TGLs = 7-6-1			
Note: LYMPH MAL UNDF    TGLs = 7-6-1			
Skin		Acanthosis	Moderate
	Subcut Tiss	Fibroma	
		Inflammation	Chronic, Mild
		Mineralization	Marked
Note: INFLAMMATION    TGLs = 2-21			
Note: MINERALIZATION    TGLs = 3-22			
Note: ACANTHOSIS    TGLs = 2-21			
Note: FIBROMA    TGLs = 3-22			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 43

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen

Hematopoietic Cell Proliferation

Moderate

Lymphoma Malignant Undifferentiated Cell Type

Note: HEMA CELL PROL TGLs = 5-2

Note: LYMPH MAL UNDF TGLs = 5-2

Testes

Interstit Cell

Adenoma

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 44                      **TRT#:** 1                      **SEX:** Male                      **DAY ON TEST:** 540  
**DOSE:** VEHICLE CONTROL                      **DISP:** Moribund                      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Islets, Pancreatic	Kidney
Lymph Node - Mandibular	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea

**MISSING**

Gallbladder	Intestine Large - Cecum	Intestine Small - Ileum	Intestine Small - Jejunum
Lymph Node - Mesenteric	Mammary Gland		

**OBSERVATIONS**

Brain		Mineralization	Mild
Liver	Hepatocyte	Anisokaryosis	Moderate
		Hemangiosarcoma	
Note: HEMANGIOSARC    TGLs = 7-22			
Lung		Congestion	Moderate
		Leukocytosis	Moderate
Skin		Acanthosis	Mild
	Subcut Tiss	Edema	Mild
		Ulcer	Moderate
[ Edema TGLS = 2-21 ]			
[ Ulcer TGLS = 1-21 ]			
Spleen	Lymph Follic	Depletion Cellular	Moderate
Stomach	Forestomach, Mucosa	Hyperplasia	Minimal
Urinary Bladder	Mucosa	Hyperplasia	Mild

**PRIMARY CAUSE OF DEATH**                      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**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> 729
	<b>DOSE:</b> VEHICLE 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	Epididymis
Esophagus	Gallbladder	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

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**MISSING**

Mammary Gland

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**OBSERVATIONS**

Adrenal Gland	Cortex	Basophilic Focus	
	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Moderate
Heart	Myocardium	Inflammation	Chronic, Mild
Kidney		Inflammation	Chronic, Mild
Skin		Acanthosis	Mild
Note: ACANTHOSIS	TGLs = 1-21		
Spleen		Hyperplasia	Lymphoid, Mild

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 46

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 582

**DOSE:** VEHICLE CONTROL

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Gallbladder	Mammary Gland	Thymus
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**OBSERVATIONS**

Adrenal Gland	Medulla	Hyperplasia	Minimal
	Medulla	Pheochromocytoma Benign	
Kidney	Renal Tubule	Atrophy	Moderate
		Casts Protein	Marked
		Hydronephrosis	Mild
		Inflammation	Chronic, Moderate
	Renal Tubule	Regeneration	Moderate
	[ Casts Protein TGLS = 3-6 ]		
	[ Inflammation TGLS = 3-6 ]		
Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 2-22 ]		
Tooth		Inflammation	Suppurative, Moderate

Note: THE INFLAMMATION IS PRESENT ON SLIDES 10 & 11.

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 47	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> VEHICLE 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 - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Prostate	Salivary Glands	Skin	Spleen
Stomach - Glandular	Thymus	Trachea	Urinary Bladder

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**MISSING**

Mammary Gland	Pituitary Gland		
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**OBSERVATIONS**

Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Moderate
Kidney	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC TGLs = 2-21			
Mesentery	Fat	Mineralization	Moderate
	Fat	Necrosis	Moderate
Note: MINERALIZATION TGLs = 1-5			
Note: NECROSIS TGLs = 1-5			
Stomach	Forestomach	Diverticulum	Moderate
	Forestomach, Mucosa	Hyperplasia	Mild
Testes		Fibrosis	Mild
		Mineralization	Mild
Thyroid Gland	Follicular Cel	Hyperplasia	Minimal
Tooth		Dysplasia	Marked

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 48

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex	Hypertrophy	Focal, Moderate
Brain		Mineralization	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Liver	Hepatocyte	Atrophy	Marked
		Hepatocellular Carcinoma	
		Inflammation	Chronic, Marked
	Lobules	Necrosis	Marked
Note: NECROSIS	TGLs = 7-23		
Note: HEPATOCLR CARC	TGLs = 8-24		
Note: INFLAMMATION	TGLs = 7-23		
Note: ATROPHY	TGLs = 7-23		
Pancreas		Cyst	
Note: CYST	TGLs = 9-5		
Preputial Gland		Inflammation	Suppurative, Marked
		Inflammation	Chronic, Marked
Note: INFLAMMATION	TGLs = 3-22,4-22		
Note: INFLAMMATION	TGLs = 3-22,4-22		
Seminal Vesicle		Fibrosis	Moderate
		Inflammation	Chronic, Moderate
Note: INFLAMMATION	TGLs = 5-7,6-7		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 48	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: FIBROSIS	TGLs = 5-7		
Spleen		Hematopoietic Cell Proliferation	Mild
Stomach	Glandular	Mineralization	Minimal
Testes		Mineralization	Minimal

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

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 49

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Gallbladder	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**INSUFFICIENT TISSUE**

Esophagus

**OBSERVATIONS**

Brain	Mineralization	Moderate
Islets, Pancreatic	Adenoma	
Kidney	Casts Protein	Minimal
	Inflammation	Chronic, Minimal
Liver	Hepatocellular Carcinoma	
Note: HEPATOCLR CARC TGLs = 4-23		
Lung	Alveolar/Bronchiolar Adenoma	Metastatic (Liver)
	Hepatocellular Carcinoma	Histiocyte, Mild
	Infiltration Cellular	Chronic, Mild
	Inflammation	Mild
Seminal Vesicle	Fibrosis	Chronic, Mild
	Inflammation	Mild
Skin	Acanthosis	Moderate
	Atrophy	Chronic, Minimal
	Inflammation	
	Hair Follicle	
Note: INFLAMMATION TGLs = 1-21		
Note: ACANTHOSIS TGLs = 1-21		
[ Atrophy TGLS = 1-21 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 49

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen

Hematopoietic Cell Proliferation

Mild

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 50

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 582

**DOSE:** VEHICLE CONTROL

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Heart	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Esophagus	Gallbladder	Mammary Gland
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**OBSERVATIONS**

Brain		Mineralization	Mild
Harderian Gland		Adenoma	
Note: THE ADENOMA IS PRESENT ON SLIDE 11.			
Intestine Large	Cecum, Mucosa	Hyperplasia	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney	Renal Tubule	Regeneration	Mild
Liver		Hepatocellular Adenoma	
Note: HEPATOCLR ADEN TGLs = 3-23			
Nose		Exudate	
Preputial Gland		Ectasia	Mild
		Inflammation	Chronic, Marked
Note: THE LESIONS ARE PRESENT ON SLIDE 22.			
Spleen	Red Pulp	Depletion Cellular	Moderate
Note: DEPLETION TGLs = 4-2			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 51

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 703

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Epididymis
Esophagus	Gallbladder	Heart	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Thymus
Trachea	Urinary Bladder		

**MISSING**

Intestine Large - Cecum	Mammary Gland
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**OBSERVATIONS**

Bone Marrow		Proliferation	Marked
Brain		Mineralization	Moderate
Kidney	Renal Tubule	Regeneration	Mild
Skin		Acanthosis	Mild
	Hair Follicle	Atrophy	Moderate
		Inflammation	Chronic, Mild
	Subcut Tiss	Schwannoma Malignant	
Note: ACANTHOSIS TGLs = 1-21			
Note: ATROPHY TGLs = 1-21			
Note: INFLAMMATION TGLs = 1-21			
Note: SCHWANNOMA MAL TGLs = 3-22			
Spleen		Hematopoietic Cell Proliferation	Mild
Stomach	Glandular	Mineralization	Minimal
	Forestomach	Squamous Cell Papilloma	
Note: PAPILLOMA SQUA TGLs = 4-5-1			
Testes	Seminif Tub	Atrophy	Mild
Thyroid Gland	Follicular Cel	Adenoma	

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 52

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 690

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	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	Nose	Pancreas
Parathyroid Gland	Salivary Glands	Spleen	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland	Thymus
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**OBSERVATIONS**

Brain		Mineralization	Mild
Kidney		Hydronephrosis	Moderate
	Renal Tubule	Regeneration	Minimal
Lymph Node	Mesenteric	Hemorrhage	Mild
Pituitary Gland	Pars Distalis	Cyst	
Prostate		Fibrosarcoma	Metastatic (Skin)
		Inflammation	Suppurative, Mild
Skin		Acanthosis	Moderate
	Hair Follicle	Atrophy	Moderate
	Subcut Tiss	Fibrosarcoma	
		Ulcer	Mild
Note: FIBROSARC	TGLs = 2-22		
Note: ACANTHOSIS	TGLs = 1-21		
Note: ULCER	TGLs = 1-21		
Note: ATROPHY	TGLs = 1-21		
Testes		Mineralization	Mild

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 53

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 525 MG/KG

**DISP:** Accident

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Epididymis  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Parathyroid Gland  
Skin  
Testes  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Colon  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Preputial Gland  
Spleen  
Thymus

Bone  
Gallbladder  
Intestine Large - Rectum  
Kidney  
Nose  
Prostate  
Stomach - Forestomach  
Thyroid Gland

Bone Marrow  
Heart  
Intestine Small - Duodenum  
Liver  
Pancreas  
Salivary Glands  
Stomach - Glandular  
Trachea

**MISSING**

Brain

Intestine Small - Ileum

Mammary Gland

Pituitary Gland

**OBSERVATIONS**

Lung

Hemorrhage

Moderate

**PRIMARY CAUSE OF DEATH**

-

Animal Note: ING THE SALIVARY GLANDS; NOT CODED.

Animal Note: THE ESOPHAGUS IS PRESENT ON SLIDE 4.

Animal Note: HEMORRHAGE WITHIN THE CONNECTIVE TISSUE SURROUND-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 54

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 657

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	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	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Spleen
Stomach - Glandular	Testes	Thymus	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland

**OBSERVATIONS**

Brain		Mineralization	Mild
Kidney		Inflammation	Chronic, Minimal
	Renal Tubule	Regeneration	Minimal
Lymph Node	Mesenteric	Hyperplasia	Lymphoid, Moderate
Penis		Inflammation	Chronic Active, Mild
Note: INFLAMMATION TGLs = 6-23			
Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic, Moderate
Note: INFLAMMATION TGLs = 3-7-1			
Note: ECTASIA TGLs = 3-7-1			
Salivary Glands		Atrophy	Moderate
Skin		Acanthosis	Mild
	Hair Follicle	Atrophy	Minimal
		Inflammation	Chronic, Mild
		Pigmentation	Mild
Note: INFLAMMATION TGLs = 1-21,2-22			
Note: ACANTHOSIS TGLs = 1-21,2-22			
Note: PIGMENT TGLs = 1-21			
Stomach	Forestomach, Mucosa	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 54	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 657
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Thyroid Gland	Follicular Cel	Hyperplasia	Minimal
Tooth		Dysplasia	Mild

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 55

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 652

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Epididymis
Esophagus	Gallbladder	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	Prostate	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Testes	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland

**OBSERVATIONS**

Bone Marrow		Proliferation	Moderate
Brain		Mineralization	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Liver	Lobules	Necrosis	Minimal
Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic, Marked
Note: INFLAMMATION TGLs = 3-7-1			
Note: ECTASIA TGLs = 3-7-1			
Skin		Acanthosis	Mild
	Hair Follicle	Atrophy	Mild
	Subcut Tiss	Fibrosarcoma	
Note: ATROPHY TGLs = 1-21			
Note: ACANTHOSIS TGLs = 1-21			
Note: FIBROSARC TGLs = 2-22			
Spleen		Hematopoietic Cell Proliferation	Moderate
Thymus		Cyst	
	Epithel Cell	Hyperplasia	Mild
Tooth		Dysplasia	Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 55

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 652

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 56	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 431
	<b>DOSE:</b> 525 MG/KG	<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 Marrow	Brain
Ear	Epididymis	Esophagus	Gallbladder
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	Nose	Pancreas	Pituitary Gland
Salivary Glands	Spinal Cord	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

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**MISSING**

Mammary Gland	Parathyroid Gland	Prostate
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**OBSERVATIONS**

Bone	Tarsal	Hyperplasia	Moderate
	Tarsal	Inflammation	Chronic, Moderate
Note: INFLAMMATION TGLs = 1-21			
Note: HYPERPLASIA TGLs = 1-21			
Seminal Vesicle		Fibrosis	Mild
Note: FIBROSIS TGLs = 5-24			
Skin		Acanthosis	Marked
		Ulcer	Moderate
Note: ULCER TGLs = 2-22			
[ Ulcer TGLS = 2-22 ]			
Testes	Seminif Tub	Atrophy	Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 57	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 385
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Natural Death	<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	Epididymis	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Pancreas	Prostate	Salivary Glands
Stomach - Forestomach	Stomach - Glandular	Testes	Thyroid Gland
Trachea	Urinary Bladder		

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**MISSING**

Mammary Gland	Pituitary Gland	Thymus
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**INSUFFICIENT TISSUE**

Parathyroid Gland

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**OBSERVATIONS**

Kidney	Renal Tubule	Regeneration	Minimal
Skin		Acanthosis	Marked
	Subcut Tiss	Edema	Moderate
		Ulcer	Marked
Note: ULCER	TGLs = 1-21		
Note: EDEMA	TGLs = 2-8		
[ Edema TGLS = 1-21 ]			
Spleen		Hematopoietic Cell Proliferation	Mild

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 58

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Esophagus	Gallbladder
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	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Seminal Vesicle	Spleen	Stomach - Forestomach
Stomach - Glandular	Testes	Trachea	

**MISSING**

Lymph Node - Mesenteric	Mammary Gland	Thymus
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**OBSERVATIONS**

Bone		Hyperostosis	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Epididymis		Inflammation	Chronic, Mild
Kidney	Renal Tubule	Regeneration	Mild
Skin	Hair Follicle	Atrophy	Moderate
	Subcut Tiss	Lipoma	
		Pigmentation	Minimal
Note: ATROPHY	TGLs = 3-22		
Note: LIPOMA	TGLs = 4-23		
Thyroid Gland	Follicular Cel	Hyperplasia	Minimal
Urinary Bladder	Mucosa	Hyperplasia	Mild
		Inflammation	Chronic Active, Moderate

Note: POSSIBLE EARLY NEOPLASM IN SUBMUCOSA; NOT FOUND ON RECUT.  
 [ Hyperplasia TGLS = 5-6-1 ]

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 59	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 445
	<b>DOSE:</b> 525 MG/KG	<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 Marrow	Epididymis
Gallbladder	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	Pituitary Gland	Prostate
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Testes	Thyroid Gland	Trachea
Urinary Bladder			

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**MISSING**

Esophagus	Mammary Gland	Parathyroid Gland	Thymus
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**OBSERVATIONS**

Bone	Tarsal	Hyperplasia	Moderate
	Tarsal	Inflammation	Chronic, Mild
Note: HYPERPLASIA TGLs = 2-22			
Note: INFLAMMATION TGLs = 2-22			
Brain		Mineralization	Minimal
Kidney	Renal Tubule	Regeneration	Minimal
Liver		Clear Cell Focus	
		Cyst	

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 60

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 568

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Testes	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland

**OBSERVATIONS**

Brain		Mineralization	Minimal
Kidney	Renal Tubule	Atrophy	Mild
	Renal Tubule	Inflammation	Chronic, Mild
		Regeneration	Moderate
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC TGLs = 3-23			
Lung		Alveolar/Bronchiolar Adenoma	
Preputial Gland		Inflammation	Chronic, Mild
Note: INFLAMMATION TGLs = 2-22			
Skin		Acanthosis	Mild
		Inflammation	Chronic, Mild
Note: INFLAMMATION TGLs = 1-21,4-22			
Note: ACANTHOSIS TGLs = 1-21			
Spleen		Hematopoietic Cell Proliferation	Moderate
Thymus	Epithel Cell	Hyperplasia	Mild

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 61      **TRT#:** 5      **SEX:** Male      **DAY ON TEST:** 601  
**DOSE:** 525 MG/KG      **DISP:** Moribund      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Testes	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland      Thymus

**OBSERVATIONS**

Brain		Mineralization	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Liver	Lobules	Hepatocellular Carcinoma	
		Necrosis	Mild
Note: HEPATOCLR CARC    TGLs = 2-22			
Lung		Alveolar/Bronchiolar Adenoma	
		Hemorrhage	Minimal
Note: ALV BRON ADEN    TGLs = 5-4			
Prostate			
Note: THE PROSTATE IS ON SLIDE #8.			
Seminal Vesicle		Fibrosis	Mild
Skin		Acanthosis	Minimal
		Inflammation	Chronic, Minimal
		Pigmentation	Mild
Note: INFLAMMATION    TGLs = 1-21			
Note: ACANTHOSIS        TGLs = 1-21			
Spleen		Hematopoietic Cell Proliferation	Moderate

PRIMARY CAUSE OF DEATH      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 62

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 188

**DOSE:** 525 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Brain	Epididymis
Esophagus	Gallbladder	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Small - Duodenum	Intestine Small - Ileum	Islets, Pancreatic
Kidney	Liver	Lymph Node - Mandibular	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Stomach - Forestomach	Stomach - Glandular	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Intestine Large - Rectum	Intestine Small - Jejunum	Lymph Node - Mesenteric	Mammary Gland
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**OBSERVATIONS**

Bone	Tarsal	Hyperplasia Inflammation	Moderate Chronic, Moderate
Note: HYPERPLASIA TGLs = 3-23 Note: INFLAMMATION TGLs = 3-23			
Bone Marrow		Proliferation	Mild
Lung		Congestion Leukocytosis	Mild Mild
Preputial Gland		Inflammation Inflammation	Suppurative, Moderate Chronic, Moderate
Note: PREPUTIAL GLAND IS ON SLIDE #22.			
Prostate		Inflammation	Suppurative, Minimal
Skin	Hair Follicle	Acanthosis Atrophy Exudate Inflammation Pigmentation	Moderate Moderate  Chronic, Mild Minimal
Note: ACANTHOSIS TGLs = 1-21 Note: EXUDATE TGLs = 1-21 Note: ATROPHY TGLs = 1-21 [ Acanthosis TGLS = 2-22 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 62	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 188
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Dead	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen	Hematopoietic Cell Proliferation	Moderate
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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 63

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 185

**DOSE:** 525 MG/KG

**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	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Stomach - Forestomach	Stomach - Glandular
Testes	Thyroid Gland	Trachea	

**MISSING**

Gallbladder	Mammary Gland
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**OBSERVATIONS**

Intestine Large	Cecum	Inflammation	Suppurative, Moderate
Kidney	Renal Tubule	Dilatation	Mild
		Hemorrhage	Moderate
		Hydronephrosis	Moderate
Note: DILATATION TGLs = 8-6			
Note: HEMORRHAGE TGLs = 9-6			
Lung		Leukocytosis	Mild
Lymph Node	Iliac	Hyperplasia	Plasma Cell, Moderate
	Inguinal	Hyperplasia	Plasma Cell, Mild
	Renal	Hyperplasia	Plasma Cell, Moderate
Note: HYPERPLASIA TGLs = 4-8			
Note: HYPERPLASIA TGLs = 11-24			
Note: HYPERPLASIA TGLs = 12-25			
Preputial Gland		Atrophy	Moderate
		Ectasia	Moderate
Note: ECTASIA TGLs = 5-7-1			
Note: ATROPHY TGLs = 5-7-1			
Prostate		Inflammation	Suppurative, Moderate
Skin		Acanthosis	Mild
		Exudate	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 63	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 185
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Dead	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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		Inflammation	Chronic, Minimal
		Pigmentation	Mild
		Ulcer	Moderate
Note: ACANTHOSIS	TGLs = 2-22		
Note: ULCER	TGLs = 2-22		
Note: INFLAMMATION	TGLs = 1-21		
Note: EXUDATE	TGLs = 1-21		
Note: PIGMENT	TGLs = 1-21		
Spleen		Hematopoietic Cell Proliferation	Moderate
Thymus		Depletion Cellular	Mild
Urethra	Mucosa	Hyperplasia	Moderate
		Inflammation	Suppurative, Moderate
Urinary Bladder	Mucosa	Hyperplasia	Mild

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 64

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	Heart
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	Pancreas
Parathyroid Gland	Prostate	Salivary Glands	Spleen
Stomach - Glandular	Testes	Thymus	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland

**OBSERVATIONS**

Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Cyst	
		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Minimal
Pituitary Gland	Pars Distalis	Cyst	
Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic, Mild
Note: INFLAMMATION TGLs = 2-7-1			
Note: ECTASIA TGLs = 2-7-1			
Skin		Acanthosis	Minimal
Note: ACANTHOSIS TGLs = 1-21			
Stomach	Forestomach, Mucosa	Hyperplasia	Mild
	Forestomach	Inflammation	Chronic, Mild
Thyroid Gland		Inflammation	Suppurative, Minimal

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 65

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 512

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone Marrow	Epididymis	Esophagus
Gallbladder	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	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland	Thymus
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone	Tarsal	Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 2-22			
Brain		Mineralization	Minimal
Intestine Large	Rectum	Inflammation	Suppurative, Mild
Note: INFLAMMATION TGLs = 5-25			
Kidney	Renal Tubule	Regeneration	Mild
	Renal Tubule	Vacuolization Cytoplasmic	Moderate
Liver		Clear Cell Focus	
Note: CLEAR CL FOCUS TGLs = 6-26			
Nose		Exudate	
Preputial Gland		Inflammation	Chronic, Mild
Note: INFLAMMATION TGLs = 4-24			
Skin		Acanthosis	Mild
	Hair Follicle	Atrophy	Mild
		Inflammation	Chronic, Minimal
		Pigmentation	Mild
Note: INFLAMMATION TGLs = 1-21			
Note: ATROPHY TGLs = 3-23			
Note: ACANTHOSIS TGLs = 1-21			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 65	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 512
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen Note: DEPLETION      TGLs = 8-2	Lymph Follic	Depletion Cellular	Mild
Testes	Interstit Cell	Adenoma	

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PRIMARY CAUSE OF DEATH      -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 66      **TRT#:** 5      **SEX:** Male      **DAY ON TEST:** 427  
**DOSE:** 525 MG/KG      **DISP:** Moribund      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Gallbladder	Mammary Gland
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**OBSERVATIONS**

Bone	Coccygeal	Hyperplasia	Moderate
	Coccygeal	Inflammation	Chronic, Moderate
Note: INFLAMMATION    TGLs = 4-24			
Note: HYPERPLASIA    TGLs = 4-24			
Bone Marrow		Lymphoma Malignant Histiocytic	
Liver		Angiectasis	Marked
		Lymphoma Malignant Histiocytic	
Note: LYMPH MAL HIST    TGLs = 9-5,8-5			
Note: ANGIECTASIS    TGLs = 9-5			
Lung		Hemorrhage	Marked
		Lymphoma Malignant Histiocytic	
Note: HEMORRHAGE    TGLs = 10-4			
Lymph Node	Mandibular	Lymphoma Malignant Histiocytic	
	Mediastinal	Lymphoma Malignant Histiocytic	
	Mesenteric	Lymphoma Malignant Histiocytic	
Seminal Vesicle		Fibrosis	Mild
Note: FIBROSIS    TGLs = 3-23,5-23			
Skeletal Muscle		Fibrosis	Moderate
Note: FIBROSIS    TGLs = 3-23,5-23			
Skin	Hair Follicle	Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 66	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 427
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: INFLAMMATION TGLs = 1-21	Inflammation	Chronic, Minimal
Note: ATROPHY TGLs = 1-21		
Spleen	Hematopoietic Cell Proliferation	Marked
[ Hematopoietic Cell Proliferation TGLS = 7-2 ]		
Testes	Seminif Tub	Moderate
Atrophy		

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 67      **TRT#:** 5      **SEX:** Male      **DAY ON TEST:** 545  
**DOSE:** 525 MG/KG      **DISP:** Moribund      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Kidney	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Testes	Thyroid Gland	Trachea

**MISSING**

Gallbladder	Mammary Gland	Thymus
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**OBSERVATIONS**

Adrenal Gland	Medulla	Hyperplasia	Mild
Liver	Hepatocyte	Anisokaryosis	Moderate
	Lobules	Hepatocellular Carcinoma	
		Necrosis	Moderate
Note: HEPATOCLR CARC    TGLs = 4-24			
Note: NECROSIS        TGLs = 6-24			
Prostate		Inflammation	Suppurative, Mild
Skin		Acanthosis	Mild
	Subcut Tiss	Fibrosarcoma	
		Inflammation	Chronic, Mild
Note: FIBROSARC        TGLs = 3-23			
Note: ACANTHOSIS      TGLs = 1-21			
Note: INFLAMMATION    TGLs = 1-21			
Spleen	Lymph Follic	Depletion Cellular	Moderate
		Hematopoietic Cell Proliferation	Mild
Urethra		Inflammation	Suppurative, Mild
Urinary Bladder		Edema	Mild
		Inflammation	Suppurative, Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 68

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Esophagus	Gallbladder	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	Prostate	Salivary Glands
Spleen	Stomach - Forestomach	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Mammary Gland

**OBSERVATIONS**

Bone Marrow		Angiectasis	Marked
Epididymis		Ectasia	Moderate
Kidney	Renal Tubule	Regeneration	Mild
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC TGLs = 8-22			
Seminal Vesicle		Inflammation	Chronic, Mild
Note: INFLAMMATION TGLs = 3-7			
Skin		Acanthosis	Moderate
		Hyperplasia	Pseudoepithel, Moderate
		Pigmentation	Minimal
Note: ACANTHOSIS TGLs = 1-21			
Note: THE HYPERPLASIA CONSISTS OF PROLIFERATION OF THE			
Note: BASILAR EPITHELIUM WITHIN THE DERMIS.			
Note: [ HYPERPLASIA ] TGLs = 2-21			
Stomach	Glandular, Mucosa	Hyperplasia	Mild
Testes	Seminif Tub	Atrophy	Moderate
Note: ATROPHY TGLs = 4-7			

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 69

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 192

**DOSE:** 525 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	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
Nose	Pancreas	Pituitary Gland	Prostate
Salivary Glands	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland	Parathyroid Gland
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**OBSERVATIONS**

Brain		Congestion	Moderate
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
Skin		Acanthosis	Moderate
		Ulcer	Mild

Note: ULCER TGLs = 1-21

[ Ulcer TGLS = 1-21 ]

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 70

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone Marrow	Epididymis	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Spleen	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone	Tarsal	Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 4-23			
Brain		Mineralization	Moderate
Kidney		Mineralization	Mild
	Renal Tubule	Regeneration	Mild
Salivary Glands		Inflammation	Chronic, Minimal
Skin		Acanthosis	Mild
		Hyperplasia	Pseudoepithel, Mild
		Pigmentation	Minimal
Note: ACANTHOSIS TGLs = 2-21			
Note: [ HYPERPLASIA ] TGLs = 1-21			

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 71

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone Marrow	Epididymis	Esophagus
Gallbladder	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
Prostate	Salivary Glands	Skin	Stomach - Forestomach
Testes	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**INSUFFICIENT TISSUE**

Thymus

**OBSERVATIONS**

Adrenal Gland	Cortex Cortex, Spindle Cell	Developmental Malformation Hyperplasia	Mild
Note: THE DEVELOP MALFOR IS A LARGE CLUSTER			
Note: OF MEDULLARY CELLS IN OUTER CORTEX.			
Bone		Hyperostosis	Moderate
Brain		Mineralization	Mild
Kidney	Renal Tubule Renal Tubule	Atrophy Regeneration	Minimal Mild
Liver	Hepatocyte	Vacuolization Cytoplasmic	Minimal
Preputial Gland		Inflammation Inflammation	Chronic, Marked Suppurative, Marked
Note: INFLAMMATION TGLs = 4-23			
Note: INFLAMMATION TGLs = 4-23			
Spleen		Hyperplasia	Lymphoid, Mild
Stomach	Glandular	Mineralization	Minimal

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 72

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 568

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Medulla	Hyperplasia	Moderate
Note: MEDULLARY CELLS BENEATH THE CAPSULE.			
Bone Marrow		Proliferation	Mild
Kidney	Renal Tubule	Atrophy	Mild
		Casts Protein	Minimal
		Cyst	
	Renal Tubule	Regeneration	Minimal
Note: CYST	TGLs = 6-6		
Liver		Hepatocellular Carcinoma	
	Kupffer Cell	Hyperplasia	Mild
	Lobules	Necrosis	Mild
Note: HEPATOCLR CARC	TGLs = 3-23,4-24,4-25		
Lung		Hepatocellular Carcinoma	Metastatic (Liver)
Skin		Acanthosis	Mild
		Inflammation	Chronic, Mild
		Pigmentation	Mild
		Ulcer	Marked
Note: ACANTHOSIS	TGLs = 1-21		
Note: INFLAMMATION	TGLs = 1-21		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 72	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 568
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ULCER TGLs = 2-22  
Spleen

Hematopoietic Cell Proliferation

Moderate

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PRIMARY CAUSE OF DEATH

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Animal Note: THE TRACHEA IS PRESENT ON SLIDE 2.

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 73	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 67
	<b>DOSE:</b> 525 MG/KG	<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	Brain
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Liver	Lung	Lymph Node - Mandibular
Nose	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Testes
Trachea	Urinary Bladder		

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**MISSING**

Intestine Large - Cecum	Intestine Small - Duodenum	Lymph Node - Mesenteric	Mammary Gland
Pituitary Gland			

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**OBSERVATIONS**

Bone Marrow		Proliferation	Moderate
Kidney	Renal Tubule	Dilatation	Moderate
		Mineralization	Minimal
Note: DILATATION TGLs = 2-6			
Mesentery	Fat	Inflammation	Suppurative, Mild
Note: THE LESION IS PRESENT ON SLIDE 7 ADJACENT TO THE PROSTATE.			
Prostate		Inflammation	Suppurative, Mild
Spleen		Hematopoietic Cell Proliferation	Moderate
Thymus		Depletion Cellular	Moderate
Thyroid Gland		Cyst	

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 74

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 655

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	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
Penis	Pituitary Gland	Prostate	Salivary Glands
Spleen	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Minimal
Kidney	Renal Tubule	Regeneration	Moderate
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC TGLs = 5-25			
Preputial Gland		Ectasia	Marked
		Inflammation	Chronic, Marked
		Inflammation	Suppurative, Marked
Note: INFLAMMATION TGLs = 3-23			
Note: ECTASIA TGLs = 3-23			
Note: INFLAMMATION TGLs = 3-23			
Seminal Vesicle		Fibrosis	Moderate
Note: FIBROSIS TGLs = 7-7			
Skin		Acanthosis	Marked
		Adenoma	
		Dysplasia	Marked
		Exudate	
		Inflammation	Chronic, Mild
Note: EXUDATE TGLs = 4-24			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 74

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 655

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: THE REMAINING SKIN LESIONS ARE ON SLIDE 24.

Note: THE CHRONIC INFLAMMATION IS PRESENT ON SLIDE 8.

Note: ACANTHOSIS TGLs = 4-24

Note: [ ADENOMA ] TGLs = 4-24

Note: [ DYSPLASIA ] TGLs = 4-24

Stomach

Glandular

Cyst

Forestomach, Mucosa

Hyperplasia

Mild

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 75      **TRT#:** 5      **SEX:** Male      **DAY ON TEST:** 159  
**DOSE:** 525 MG/KG      **DISP:** Dead      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Gallbladder
Heart	Islets, Pancreatic	Kidney	Liver
Lymph Node - Mandibular	Nose	Pancreas	Pituitary Gland
Salivary Glands	Stomach - Glandular	Testes	Thymus
Trachea	Urinary Bladder		

**MISSING**

Lymph Node - Mesenteric	Mammary Gland	Parathyroid Gland	Thyroid Gland
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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	Seminal Vesicle	

**OBSERVATIONS**

Lung	Congestion	Moderate
	Hemorrhage	Mild
	Leukocytosis	Moderate
Prostate	Inflammation	Suppurative, Moderate
Skin	Acanthosis	Moderate
	Inflammation	Chronic, Mild
	Pigmentation	Mild
	Ulcer	Marked

Note: INFLAMMATION TGLs = 2-22

Note: ACANTHOSIS TGLs = 1-21,2-22

Note: ULCER TGLs = 1-21

Spleen	Hematopoietic Cell Proliferation	Moderate
Stomach	Hyperplasia	Mild
Urethra	Inflammation	Suppurative, Marked

Note: INFLAMMATION TGLs = 3-23

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 76

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 585

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Gallbladder	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Liver	Nose	Pancreas
Parathyroid Gland	Prostate	Salivary Glands	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Trachea
Urinary Bladder			

**MISSING**

Esophagus	Lymph Node - Mandibular	Mammary Gland
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**OBSERVATIONS**

Brain		Mineralization	Minimal
Islets, Pancreatic		Hyperplasia	Mild
Kidney	Renal Tubule	Dilatation	Minimal
		Inflammation	Chronic, Minimal
		Mineralization	Minimal
	Renal Tubule	Regeneration	Mild
	Renal Tubule	Vacuolization Cytoplasmic	Mild
Lung		Alveolar/Bronchiolar Adenoma	
Lymph Node	Mesenteric	Hemorrhage	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
Preputial Gland		Ectasia	Mild
		Inflammation	Chronic, Marked
Note: ECTASIA	TGLs = 2-22		
Note: INFLAMMATION	TGLs = 2-22		
Skin		Acanthosis	Mild
		Exudate	
		Inflammation	Chronic, Moderate
		Pigmentation	Mild
		Ulcer	Moderate
Note: ACANTHOSIS	TGLs = 1-21		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06

**Test Type:** CHRONIC

**Route:** GAVAGE

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** gamma-Butyrolactone

**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014

**Time Report Requested:** 03:23:07

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

**Lab:** SRI

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**ANIMAL ID:** 76

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 585

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: EXUDATE TGLs = 1-21

Note: ULCER TGLs = 2-22

Note: PIGMENT TGLs = 1-21

Note: INFLAMMATION TGLs = 1-21

Testes

Mineralization

Mild

Thyroid Gland

Cyst

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 77

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 640

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Brain	Epididymis
Esophagus	Gallbladder	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Liver	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Stomach - Forestomach	Stomach - Glandular	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Bone Marrow		Proliferation	Moderate
Kidney	Renal Tubule	Atrophy	Minimal
	Renal Tubule	Regeneration	Mild
Lymph Node	Inguinal	Hyperplasia	Plasma Cell, Mild
Note: HYPERPLASIA TGLs = 3-8			
Skin		Acanthosis	Minimal
	Hair Follicle	Atrophy	Mild
		Ulcer	Marked
Note: ULCER TGLs = 2-22			
Note: ATROPHY TGLs = 1-21			
Note: ACANTHOSIS TGLs = 1-21			
Spleen		Hematopoietic Cell Proliferation	Mild

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 78      **TRT#:** 5      **SEX:** Male      **DAY ON TEST:** 381  
**DOSE:** 525 MG/KG      **DISP:** Moribund      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone Marrow	Brain
Epididymis	Gallbladder	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Islets, Pancreatic	Kidney	Liver	Lung
Lymph Node - Mandibular	Mesentery	Nose	Pancreas
Parathyroid Gland	Prostate	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Testes	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Lymph Node - Mesenteric	Mammary Gland	Pituitary Gland	Thymus
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**OBSERVATIONS**

Bone	Tarsal	Hyperplasia	Moderate
	Tarsal	Inflammation	Chronic, Moderate
Note: HYPERPLASIA    TGLs = 5-25			
Note: INFLAMMATION    TGLs = 5-25			
Esophagus		Ulcer	Mild
Intestine Small	Jejunum	Inflammation	Chronic Active, Moderate
Note: INFLAMMATION    TGLs = 4-24			
Preputial Gland		Inflammation	Suppurative, Marked
Note: INFLAMMATION    TGLs = 6-7-1			
Skin		Acanthosis	Moderate
		Pigmentation	Minimal
		Ulcer	Marked
Note: ACANTHOSIS    TGLs = 1-21			
Note: [ ULCER        ] TGLs = 1-21			
[ Acanthosis TGLS = 3-23 ]			
Spleen		Hematopoietic Cell Proliferation	Mild

**PRIMARY CAUSE OF DEATH**      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 79      **TRT#:** 5      **SEX:** Male      **DAY ON TEST:** 583  
**DOSE:** 525 MG/KG      **DISP:** Moribund      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Ear	Epididymis	Esophagus	Gallbladder
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	Nose
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Spinal Cord	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**OBSERVATIONS**

Brain		Mineralization	Minimal
Kidney		Cyst	
	Renal Tubule	Regeneration	Mild
Note: CYST      TGLs = 5-6			
Lymph Node	Mesenteric	Hemorrhage	Mild
Pancreas		Cyst	
Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic, Marked
Note: ECTASIA      TGLs = 3-23			
Note: INFLAMMATION      TGLs = 3-23			
Skin	Hair Follicle	Acanthosis	Mild
		Atrophy	Moderate
		Inflammation	Chronic, Minimal
Note: ATROPHY      TGLs = 2-22			
Note: ACANTHOSIS      TGLs = 2-22			
Note: INFLAMMATION      TGLs = 2-22			
Testes		Mineralization	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 80

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 568

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Gallbladder
Heart	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Pancreas
Parathyroid Gland	Prostate	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Testes	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland	Pituitary Gland
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**OBSERVATIONS**

Intestine Large	Cecum	Edema	Mild
Kidney		Cyst	
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
Note: HYPERPLASIA TGLs = 6-8			
Mesentery	Fat	Necrosis	Moderate
Note: NECROSIS TGLs = 4-24			
Nose		Exudate	
Preputial Gland		Inflammation	Chronic, Marked
Note: INFLAMMATION TGLs = 3-23		Inflammation	Suppurative, Marked
Note: INFLAMMATION TGLs = 3-23			
Skin		Acanthosis	Mild
	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC TGLs = 1-21		Inflammation	Chronic, Moderate
Note: ACANTHOSIS TGLs = 2-22			
Note: THE FIBROSARCOMA IS HIGHLY ANAPLASTIC. [ Acanthosis TGLs = 5-23 ]			
Spleen		Hematopoietic Cell Proliferation	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 80	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 568
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Thymus	Epithel Cell	Hyperplasia	Mild
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 81      **TRT#:** 5      **SEX:** Male      **DAY ON TEST:** 108  
**DOSE:** 525 MG/KG      **DISP:** Dead      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Kidney	Liver	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Stomach - Forestomach	Stomach - Glandular	Testes	Thyroid Gland
Trachea			

**MISSING**

Lymph Node - Mandibular	Mammary Gland	Thymus
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**OBSERVATIONS**

Lung		Hemorrhage	Mild
		Leukocytosis	Mild
Lymph Node	Mesenteric	Depletion Cellular	Moderate
Skin		Acanthosis	Moderate
		Ulcer	Moderate
Note: ACANTHOSIS      TGLs = 1-21,3-22			
Note: ULCER      TGLs = 2-21,4-22			
Spleen	Lymph Follic	Depletion Cellular	Moderate
Note: DEPLETION      TGLs = 5-2			
Urinary Bladder	Mucosa	Hyperplasia	Mild

**PRIMARY CAUSE OF DEATH**      -

Animal Note: THE ESOPHAGUS IS PRESENT ON SLIDE #4.

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 82	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 119
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Dead	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	Heart	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	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Tongue	Trachea	Urinary Bladder	

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**MISSING**

Lymph Node - Mesenteric	Mammary Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex	Accessory Adrenal Cortical Nodule	
Brain		Congestion	Moderate
Lung		Congestion	Mild
		Hemorrhage	Mild
Skin		Acanthosis	Moderate
		Ulcer	Marked
Note: ACANTHOSIS TGLs = 1-21			
Note: ULCER TGLs = 1-21			
Spleen	Lymph Follic	Depletion Cellular	Moderate
Note: DEPLETION TGLs = 2-2			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 83      **TRT#:** 5      **SEX:** Male      **DAY ON TEST:** 119  
**DOSE:** 525 MG/KG      **DISP:** Dead      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Esophagus	Gallbladder	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	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**OBSERVATIONS**

Brain		Congestion	Mild
Epididymis		Fibrosis	Minimal
Skin		Acanthosis	Moderate
		Pigmentation	Mild
		Ulcer	Marked
Note: ULCER      TGLs = 1-21			
Note: ACANTHOSIS      TGLs = 1-21			
[ Ulcer TGLS = 1-21 ]			
Spleen	Lymph Follic	Depletion Cellular	Moderate
Note: DEPLETION      TGLs = 3-2			
Tongue		Necrosis	Minimal
[ Necrosis TGLS = 4-22 ]			

**PRIMARY CAUSE OF DEATH**      -

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 84

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 585

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Skeletal Muscle	Spleen	Stomach - Forestomach
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Mild
Heart	Myocardium	Fibrosis	Moderate
	Artery	Hypertrophy	Marked
	Artery	Inflammation	Chronic Active, Marked
Kidney	Renal Tubule	Regeneration	Minimal
Liver		Cyst	
Note: CYST	TGLs = 3-23		
Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Histiocyte, Mild
Note: ALV BRON ADEN	TGLs = 4-4		
Mesentery	Artery	Hypertrophy	Marked
	Artery	Inflammation	Chronic Active, Marked
Skin		Inflammation	Chronic, Minimal
Note: INFLAMMATION	TGLs = 1-21		
Stomach	Glandular	Inflammation	Chronic Active, Mild
Testes		Mineralization	Minimal

**PRIMARY CAUSE OF DEATH**

-

Animal Note: THE MESENTERIC LESIONS ARE ON SLIDE #5.

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 85	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> 525 MG/KG	<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
Epididymis	Esophagus	Gallbladder	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	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Skin
Spleen	Stomach - Glandular	Testes	Thyroid Gland
Trachea	Urinary Bladder		

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**MISSING**

Lymph Node - Mandibular	Mammary Gland
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**INSUFFICIENT TISSUE**

Thymus

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Adenoma	
	Cortex	Developmental Malformation	
	Cortex	Hyperplasia	Focal, Minimal
Note: [ ADENOMA ] TGLs = 2-6-1			
Kidney	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Adenoma	
Note: [ HEPATOCLR ADEN ] TGLs = 3-21			
Stomach	Forestomach	Diverticulum	Moderate

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 86      **TRT#:** 5      **SEX:** Male      **DAY ON TEST:** 729  
**DOSE:** 525 MG/KG      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Brain	Epididymis
Esophagus	Gallbladder	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	Mesentery	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**OBSERVATIONS**

Bone	Tarsal	Hyperplasia	Moderate
Note: HYPERPLASIA      TGLs = 4-23			
Bone Marrow		Myelofibrosis	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Note: THE ATROPHY OCCURS WITHIN A LOCALIZED AREA WITHIN			
Skin		Acanthosis	Moderate
		Inflammation	Chronic, Moderate
		Pigmentation	Moderate
		Ulcer	Mild
Note: ACANTHOSIS      TGLs = 2-21			
Note: ULCER      TGLs = 1-21			
Note: INFLAMMATION      TGLs = 1-21			
Thymus	Epithel Cell	Hyperplasia	Moderate
Urin Bladder			
Note: THE INFLAMM. CONSISTS OF FOCAL AGGREGATES OF			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 87

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone Marrow	Esophagus
Gallbladder	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	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Spleen	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Tissue NOS	Trachea	Urinary Bladder	

**MISSING**

Mammary Gland

**OBSERVATIONS**

Bone Note: HYPERPLASIA TGLs = 6-23+23-1	Tarsal	Hyperplasia	Moderate
Brain		Mineralization	Mild
Epididymis		Granuloma Sperm	Moderate
Kidney	Renal Tubule	Atrophy	Minimal
		Cyst	
		Mineralization	Minimal
Lung		Alveolar/Bronchiolar Adenoma	
Preputial Gland		Inflammation	Chronic, Moderate
		Inflammation	Suppurative, Moderate
Note: INFLAMMATION TGLs = 4-7-1			
Note: INFLAMMATION TGLs = 4-7-1			
Skin		Acanthosis	Mild
		Hyperkeratosis	Mild
		Pigmentation	Moderate
[ Acanthosis TGLS = 1-21,2-21,3-22 ]			
[ Hyperkeratosis TGLS = 2-21 ]			
[ Pigmentation TGLS = 1-21,2-21 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 87

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 88      **TRT#:** 5      **SEX:** Male      **DAY ON TEST:** 329  
**DOSE:** 525 MG/KG      **DISP:** Dead      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Blood	Bone
Brain	Epididymis	Esophagus	Heart
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Lymph Node - Mandibular
Nose	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	

**MISSING**

Mammary Gland

**AUTO PRECLUDES DIAG.**

Gallbladder	Intestine Large - Cecum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lymph Node - Mesenteric	Urinary Bladder	

**OBSERVATIONS**

Bone Marrow		Proliferation	Moderate
Kidney		Inflammation	Suppurative, Mild
Liver	Lobules	Necrosis	Marked
Lung		Leukocytosis	Moderate
Lymph Node	Iliac	Hyperplasia	Plasma Cell, Marked
Note: HYPERPLASIA      TGLs = 4-22			
Pancreas		Necrosis	Mild
Skin		Acanthosis	Moderate
	Hair Follicle	Atrophy	Moderate
Note: ATROPHY      TGLs = 1-21			
Note: ACANTHOSIS      TGLs = 1-21			
Spleen		Hematopoietic Cell Proliferation	Marked
Note: HEMA CELL PROL      TGLs = 3-2			

**PRIMARY CAUSE OF DEATH**      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 89

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 514

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Epididymis
Esophagus	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Stomach - Forestomach	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Gallbladder	Mammary Gland
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**OBSERVATIONS**

Bone Marrow		Proliferation	Marked
Brain		Mineralization	Mild
Kidney	Renal Tubule	Atrophy	Moderate
		Bacterium	Marked
		Inflammation	Suppurative, Marked
		Inflammation	Chronic, Moderate
	Renal Tubule	Necrosis	Marked
Note: INFLAMMATION TGLs = 6-6			
Liver	Hepatocyte	Anisokaryosis	Mild
		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC TGLs = 3-23			
Prostate		Inflammation	Suppurative, Minimal
Skin		Acanthosis	Moderate
	Hair Follicle	Atrophy	Marked
		Carcinoma	
		Ulcer	Moderate
Note: ACANTHOSIS TGLs = 1-21,2-22			
Note: [ CARCINOMA ] TGLs = 1-21			
Note: ULCER TGLs = 1-21			
Note: ATROPHY TGLs = 1-21			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 89	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 514
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen		Hematopoietic Cell Proliferation	Moderate
Note: HEMA CELL PROL TGLs = 5-2			
Stomach	Glandular	Cyst	
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 90	<b>TRT#:</b> 5 <b>DOSE:</b> 525 MG/KG	<b>SEX:</b> Male <b>DISP:</b> Dead	<b>DAY ON TEST:</b> 119 <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
Epididymis	Gallbladder	Heart	Kidney
Liver	Lung	Mammary Gland	Prostate
Testes			

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**MISSING**

Esophagus	Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric
Pancreas	Parathyroid Gland	Thymus	Thyroid Gland
Trachea			

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**AUTO PRECLUDES DIAG.**

Bone Marrow	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Nose
Pituitary Gland	Salivary Glands	Spleen	Stomach - Forestomach
Stomach - Glandular	Urinary Bladder		

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**OBSERVATIONS**

Skin	Acanthosis	Mild
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[ Acanthosis TGLS = 1-21 ]

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: THE MAJORITY OF ORGANS TOO AUTOLYZED TO EVALUATE.

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 91

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Gallbladder	Mammary Gland	Prostate
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**OBSERVATIONS**

Adrenal Gland	Cortex	Accessory Adrenal Cortical Nodule	
	Cortex, Spindle Cell	Hyperplasia	Mild
	Medulla	Hyperplasia	Moderate
Brain		Mineralization	Minimal
Kidney	Renal Tubule	Atrophy	Minimal
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
Skin		Acanthosis	Mild
	Subcut Tiss	Fibrosarcoma	
		Pigmentation	Mild
Note: ACANTHOSIS	TGLs = 1-21,2-22		
Note: FIBROSARC	TGLs = 3-23,4-25		
Spleen		Hematopoietic Cell Proliferation	Mild
		Hyperplasia	Lymphoid, Mild

**PRIMARY CAUSE OF DEATH** -

Animal Note: APPARENT MIX-UP IN SLIDE LABELING SEE PEIS FORM FIELD 27.

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 92

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 597

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Liver	Lung
Lymph Node - Mandibular	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	Urinary Bladder

**MISSING**

Gallbladder	Intestine Small - Ileum	Mammary Gland
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**OBSERVATIONS**

Brain		Mineralization	Mild
Lymph Node	Mesenteric	Hemorrhage	Mild
Skin		Acanthosis	Moderate
		Exudate	
	Subcut Tiss	Fibrosarcoma	
		Inflammation	Chronic, Mild
		Pigmentation	Mild
Note: ACANTHOSIS	TGLs = 1-21,3-23		
Note: EXUDATE	TGLs = 3-23		
Note: INFLAMMATION	TGLs = 1-21,3-23		
Note: FIBROSARC	TGLs = 2-22		
Spleen	Lymph Follic	Depletion Cellular	Mild
Note: DEPLETION	TGLs = 5-2		
Testes		Fibrosis	Moderate
		Mineralization	Moderate
Note: MINERALIZATION	TGLs = 4-7		
Note: FIBROSIS	TGLs = 4-7		
Thyroid Gland		Cyst	

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

<b>ANIMAL ID:</b> 93	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 656
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b>

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Epididymis	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Lymph Node - Mandibular	Nose
Pancreas	Prostate	Salivary Glands	Spleen
Stomach - Glandular	Testes	Thymus	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland	Parathyroid Gland
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**OBSERVATIONS**

Adrenal Gland	Medulla	Cyst	
	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Mild
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC	TGLs = 2-22		
Lung		Alveolar/Bronchiolar Adenoma	
Note: ALV BRON ADEN	TGLs = 5-4		
Lymph Node	Mesenteric	Hemorrhage	Mild
Note: HEMORRHAGE	TGLs = 4-6-1		
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Skin	Hair Follicle	Atrophy	Mild
Note: ATROPHY	TGLs = 1-21		
Stomach	Forestomach, Mucosa	Hyperplasia	Mild
Thyroid Gland	Follicular Cel	Adenoma	
Tooth		Dysplasia	Minimal
		Inflammation	Chronic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 94

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	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	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Spleen
Stomach - Forestomach	Stomach - Glandular	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Medulla	Hyperplasia	Moderate
Brain		Mineralization	Mild
Kidney	Renal Tubule	Atrophy	Minimal
		Casts Protein	Minimal
		Cyst	
	Renal Tubule	Dysplasia	Mild
<p>Note: AND MITOTIC ACTIVITY IS EVIDENT.</p> <p>Note: THE DYSPLASIA CONSISTS OF A LOCALIZED AREA OF ENLARGED</p> <p>Note: TUBULAR CELLS CAUSING SLIGHT COMPRESSION.</p> <p>Note: THE DYSPLASTIC CELLS ARE VACULATED</p>			
Lung		Hemorrhage	Moderate
<p>[ Hemorrhage TGLS = 4-4 ]</p>			
Skin		Acanthosis	Mild
	Subcut Tiss	Edema	Mild

Note: ACANTHOSIS TGLs = 1-21,2-21

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 95

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Skin		Acanthosis	Mild
	Subcut Tiss	Hemangiosarcoma	
		Inflammation	Chronic, Minimal
		Pigmentation	Mild

Note: INFLAMMATION TGLs = 1-21

Note: ACANTHOSIS TGLs = 1-21

Note: PIGMENT TGLs = 1-21

[ Acanthosis TGLS = 3-22 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 96

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 169

**DOSE:** 525 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Gallbladder	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	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Stomach - Forestomach	Stomach - Glandular	Testes	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Epididymis	Lymph Node - Mesenteric	Mammary Gland
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**OBSERVATIONS**

Kidney	Renal Tubule	Regeneration	Minimal
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Minimal
Note: HYPERPLASIA    TGLs = 3-8			
Mesentery	Artery	Hypertrophy	Mild
	Fat	Inflammation	Chronic, Moderate
Note: HYPERTROPHY    TGLs = 5-6-1			
Note: INFLAMMATION   TGLs = 5-6-1			
Skin	Hair Follicle	Acanthosis	Moderate
		Atrophy	Mild
		Cyst Epithelial Inclusion	
		Ulcer	Marked
Note: ACANTHOSIS    TGLs = 1-21			
Note: ULCER            TGLs = 2-22			
Note: ATROPHY        TGLs = 1-21			
Note: CYST EPITH INC   TGLs = 1-21			
Spleen	Lymph Follic	Depletion Cellular	Moderate
[ Depletion Cellular TGLS = 4-2 ]			
Thymus		Depletion Cellular	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 96

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 169

**DOSE:** 525 MG/KG

**DISP:** Dead

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05002-06

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: gamma-Butyrolactone

CAS Number: 96-48-0

Date Report Requested: 10/20/2014

Time Report Requested: 03:23:07

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 97

TRT#: 5

SEX: Male

DAY ON TEST: 171

DOSE: 525 MG/KG

DISP: Moribund

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex

Adrenal Gland - Medulla

Bone

Bone Marrow

Brain

Epididymis

Esophagus

Gallbladder

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

Nose

Pancreas

Parathyroid Gland

Pituitary Gland

Prostate

Spleen

Stomach - Forestomach

Stomach - Glandular

Testes

Thyroid Gland

Trachea

Urinary Bladder

MISSING

Mammary Gland

Salivary Glands

OBSERVATIONS

Lymph Node

Mesenteric

Depletion Cellular

Moderate

Skin

Ulcer

Mild

Note: ULCER TGLs = 1-21

Thymus

Depletion Cellular

Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 98

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Pituitary Gland	Prostate	Seminal Vesicle
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea

**MISSING**

Mammary Gland

**OBSERVATIONS**

Brain		Mineralization	Minimal
Kidney		Cyst	
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
Mesentery	Fat	Necrosis	Mild
Note: NECROSIS	TGLs = 7-23		
Parathyroid Gland		Cyst	
Preputial Gland		Inflammation	Chronic, Marked
Note: INFLAMMATION	TGLs = 4-7-1		
Salivary Glands		Inflammation	Chronic, Mild
Urinary Bladder		Congestion	Moderate
Note: CONGESTION	TGLs = 5-6-1		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 99	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 169
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Dead	<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	Epididymis	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Islets, Pancreatic	Kidney	Liver
Lymph Node - Mesenteric	Pancreas	Parathyroid Gland	Prostate
Salivary Glands	Stomach - Forestomach	Testes	Thyroid Gland
Trachea	Urinary Bladder		

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**MISSING**

Mammary Gland	Pituitary Gland
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**AUTO PRECLUDES DIAG.**

Intestine Small - Ileum	Intestine Small - Jejunum
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**OBSERVATIONS**

Lung		Congestion	Moderate
Lymph Node	Mandibular	Depletion Cellular	Moderate
Nose		Exudate	
Skin		Acanthosis	Mild
	Hair Follicle	Atrophy	Moderate
Note: ACANTHOSIS TGLs = 1-21			
Note: ATROPHY TGLs = 1-21			
Spleen	Lymph Follic	Depletion Cellular	Moderate
[ Depletion Cellular TGLS = 3-2 ]			
Stomach	Glandular	Erosion	Mild
Thymus		Depletion Cellular	Moderate

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 100      **TRT#:** 5      **SEX:** Male      **DAY ON TEST:** 170  
**DOSE:** 525 MG/KG      **DISP:** Dead      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Intestine Small - Duodenum	Mammary Gland	Spleen
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**OBSERVATIONS**

Epididymis		Granuloma Sperm	Moderate
Liver	Lobules	Necrosis	Mild
Lymph Node	Mesenteric	Depletion Cellular	Mild
Nose		Exudate	
Prostate		Inflammation	Suppurative, Moderate
Skin		Acanthosis	Moderate
	Hair Follicle	Atrophy	Moderate
		Pigmentation	Mild
Note: ACANTHOSIS	TGLs = 1-21		
Note: PIGMENT	TGLs = 1-21		
Note: ATROPHY	TGLs = 1-21		
Thymus		Depletion Cellular	Moderate

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 101

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	Harderian Gland	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	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Spleen	Stomach - Glandular	Testes	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland Note: PHEOCHROM MAL TGLs = 3-8	Medulla	Pheochromocytoma Malignant	
Brain		Mineralization	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Lung Note: ALV BRON ADEN TGLs = 4-4		Alveolar/Bronchiolar Adenoma	
Skin	Hair Follicle	Acanthosis	Moderate
		Atrophy	Moderate
		Inflammation	Chronic, Mild
		Pigmentation	Minimal
		Ulcer	Minimal
Note: ATROPHY TGLs = 1-21			
Note: ACANTHOSIS TGLs = 1-21			
Note: INFLAMMATION TGLs = 1-21			
Note: ULCER TGLs = 1-21			
Stomach	Forestomach	Diverticulum	Moderate
Thymus	Epithel Cell	Hyperplasia	Mild

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 101

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: THE ILEUM IS ON SLIDE 8

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 102

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Epididymis	Esophagus
Gallbladder	Harderian Gland	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	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Stomach - Forestomach	Stomach - Glandular
Thymus	Trachea	Urinary Bladder	

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell Medulla	Hyperplasia Hyperplasia Proliferation	Mild Moderate Moderate
Bone Marrow		Infarct	Mild
Kidney		Metaplasia	Osseous, Mild
Liver		Hematopoietic Cell Proliferation	Mild
Lymph Node	Mesenteric Inguinal	Hematopoietic Cell Proliferation Hyperplasia	Moderate Lymphoid, Mild
[ Hyperplasia TGLS = 7-25 ]			
Skin	Lymphatic	Acanthosis Dilatation Inflammation Ulcer	Marked Moderate Chronic, Marked Marked
Note: ULCER	TGLs = 1-21,3-23,5-24		
Note: INFLAMMATION	TGLs = 1-21,3-23,5-24		
Note: DILATATION	TGLs = 5-24		
Note: ACANTHOSIS	TGLs = 1-21,2-22,3-23,5-24		
Spleen		Hematopoietic Cell Proliferation	Moderate
Testes	Seminif Tub	Atrophy Mineralization	Minimal Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 102

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Thyroid Gland

Cyst

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 103      **TRT#:** 3      **SEX:** Male      **DAY ON TEST:** 730  
**DOSE:** 262 MG/KG      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone Marrow	Brain	Epididymis
Esophagus	Gallbladder	Harderian Gland	Heart
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	Pancreas
Parathyroid Gland	Prostate	Salivary Glands	Spleen
Stomach - Glandular	Thymus	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone	Coccygeal	Hyperplasia	Moderate
	Coccygeal	Inflammation	Chronic, Moderate
Note: INFLAMMATION	TGLs = 5-24,5-24-1		
Note: HYPERPLASIA	TGLs = 5-24,5-24-1		
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Cyst	
		Mineralization	Minimal
	Renal Tubule	Regeneration	Minimal
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
Pituitary Gland	Pars Distalis	Cyst	
Preputial Gland		Inflammation	Chronic, Moderate
Note: INFLAMMATION	TGLs = 3-23		
Skin		Acanthosis	Mild
	Hair Follicle	Atrophy	Moderate
Note: ATROPHY	TGLs = 1-21		
Note: ACANTHOSIS	TGLs = 1-21		
Stomach	Forestomach	Diverticulum	Moderate
Testes		Mineralization	Minimal
Thyroid Gland	Follicular Cel	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 103

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**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: BASOPHILIC MATERIAL ALONG CECAL MUCOSA--CONSIDERED

Animal Note: ARTIFACT; NOT CODED

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 104

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Epididymis	Esophagus
Gallbladder	Harderian Gland	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	Prostate	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Trachea	Urinary Bladder	

**MISSING**

Mammary Gland	Thymus
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**OBSERVATIONS**

Adrenal Gland	Cortex	Adenoma	
	Medulla	Hyperplasia	Minimal
	Cortex	Hypertrophy	Focal, Minimal
Blood		Anemia	Moderate
Note: ANEMIA	TGLs = 1-61		
Brain		Mineralization	Minimal
Kidney		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Mild
Liver	Lobules	Necrosis	Mild
Skin		Acanthosis	Moderate
	Hair Follicle	Atrophy	Moderate
	Subcut Tiss	Fibrosarcoma	
		Pigmentation	Mild
		Ulcer	Moderate
Note: ATROPHY	TGLs = 2-21		
Note: ACANTHOSIS	TGLs = 2-21		
Note: ULCER	TGLs = 2-21		
Note: PIGMENT	TGLs = 2-21		
Note: THE FIBROSARC IS VERY PLEOMORPHIC			
Note: FIBROSARC	TGLs = 3-22		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 104	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen Note: HEMA CELL PROL TGLs = 5-2		Hematopoietic Cell Proliferation	Marked
Testes	Seminif Tub	Atrophy	Mild
Thyroid Gland		Cyst	

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 105

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	Harderian Gland	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Islets, Pancreatic	Liver	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Pancreas
Parathyroid Gland	Prostate	Spleen	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Medulla	Hyperplasia	Minimal
Brain		Mineralization	Moderate
Intestine Small	Jejunum	Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 5-23			
Kidney		Inflammation	Chronic, Minimal
		Mineralization	Minimal
	Renal Tubule	Regeneration	Minimal
Pituitary Gland	Pars Distalis	Cyst	
Preputial Gland		Ectasia	Marked
		Inflammation	Chronic, Moderate
		Inflammation	Suppurative, Mild
Note: ECTASIA TGLs = 4-15			
Salivary Glands		Inflammation	Chronic, Minimal
Skin		Acanthosis	Mild
	Hair Follicle	Atrophy	Moderate
		Hyperplasia	Pseudoepithel, Minimal
		Pigmentation	Mild
Note: [ HYPERPLASIA ] TGLs = 1-21			
Note: ATROPHY TGLs = 1-21,2-22			
Note: ACANTHOSIS TGLs = 2-22			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 105	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Stomach	Forestomach	Squamous Cell Papilloma	
Testes	Seminif Tub	Atrophy	Moderate
Urinary Bladder		Inflammation	Chronic, Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 106

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Gallbladder
Harderian Gland	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
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Skin	Spleen	Stomach - Glandular
Testes	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland	Thymus
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**OBSERVATIONS**

Kidney		Cyst	
	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Adenoma	
Note: [ HEPATOCLR ADEN ] TGLs = 5-23			
Lymph Node	Mesenteric	Hemorrhage	Minimal
Note: HEMORRHAGE TGLs = 4-8			
Stomach	Forestomach	Squamous Cell Papilloma	

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 107      **TRT#:** 3      **SEX:** Male      **DAY ON TEST:** 730  
**DOSE:** 262 MG/KG      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland      Thymus

**OBSERVATIONS**

Adrenal Gland	Cortex Cortex, Spindle Cell	Developmental Malformation Hyperplasia	Moderate
Note: CELLS WITHIN THE CORTEX. Note: THE DEVELOP MALFOR APPEARS AS CLUSTERS OF MEDULLARY			
Harderian Gland		Adenoma	
Note: ADENOMA      TGLs = 2-14			
Islets, Pancreatic		Hyperplasia	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Adenoma	
Lung		Infiltration Cellular	Histiocyte, Minimal
Preputial Gland		Inflammation	Chronic, Moderate
Note: INFLAMMATION      TGLs = 4-15			
Skin	Subcut Tiss	Acanthosis Fibroma Fibrosis Inflammation	Moderate  Marked Chronic, Mild
Note: ACANTHOSIS      TGLs = 3-22 Note: FIBROMA      TGLs = 1-21,1-22			
Testes	Seminif Tub	Atrophy	Marked
Note: ATROPHY      TGLs = 5-9			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 107

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**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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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 108

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	Harderian Gland	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thyroid Gland	Trachea	

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Medulla	Hyperplasia	Mild
	Medulla	Pheochromocytoma Benign	
Note: PHEOCHROM BGN TGLs = 4-8			
Brain		Mineralization	Moderate
Kidney		Inflammation	Chronic, Minimal
	Renal Tubule	Regeneration	Minimal
Skin		Acanthosis	Moderate
		Inflammation	Chronic, Mild
		Pigmentation	Moderate
Note: PIGMENT TGLs = 1-21			
Note: INFLAMMATION TGLs = 1-21			
Note: ACANTHOSIS TGLs = 1-21			
Thymus	Epithel Cell	Hyperplasia	Mild
Urinary Bladder		Inflammation	Chronic, Mild

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 109

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland

**OBSERVATIONS**

Kidney	Renal Tubule	Regeneration	Minimal
Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic, Marked
		Inflammation	Suppurative, Marked
Note: INFLAMMATION TGLs = 4-15,5-15			
Note: INFLAMMATION TGLs = 4-15,5-15			
Skin	Subcut Tiss	Acanthosis	Mild
		Fibrosarcoma	
		Inflammation	Chronic, Minimal
Note: ACANTHOSIS TGLs = 1-21			
Note: INFLAMMATION TGLs = 1-21			
Note: FIBROSARC TGLs = 2-22			
Testes		Mineralization	Mild
Thymus		Cyst	

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 110

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 670

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Esophagus	Gallbladder
Harderian Gland	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	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Stomach - Glandular	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Lymph Node - Mesenteric	Mammary Gland
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**OBSERVATIONS**

Bone	Coccygeal	Hyperplasia	Moderate
	Coccygeal	Inflammation	Suppurative, Moderate
<p>Note: INFLAMMATION TGLs = 3          Note: HYPERPLASIA TGLs = 3          Note: TGL 3 IS ON SLIDE II.</p>			
Bone Marrow		Proliferation	Moderate
Brain		Mineralization	Mild
Epididymis		Inflammation	Chronic, Mild
Kidney	Renal Tubule	Regeneration	Minimal
Lung		Alveolar/Bronchiolar Adenoma	
		Congestion	Moderate
Preputial Gland		Ectasia	Marked
<p>Note: ECTASIA TGLs = 2-8</p>			
Skin		Acanthosis	Marked
		Ulcer	Marked
<p>Note: TGL 1 IS ON SLIDE I.          Note: ACANTHOSIS TGLs = 1          Note: ULCER TGLs = 1</p>			
Spleen		Hematopoietic Cell Proliferation	Mild
Stomach	Forestomach	Diverticulum	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 110

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 670

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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Animal Note: THE PANCREAS IS PRESENT ON SLIDE 7.

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 111

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 391

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Heart  
Nose  
Seminal Vesicle  
Thyroid Gland

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Rectum  
Parathyroid Gland  
Spleen

Bone  
Esophagus  
Liver  
Pituitary Gland  
Testes

Bone Marrow  
Harderian Gland  
Lung  
Salivary Glands  
Thymus

**MISSING**

Gallbladder  
Mammary Gland

Islets, Pancreatic  
Pancreas

Lymph Node - Mandibular  
Penis

Lymph Node - Mesenteric

**AUTO PRECLUDES DIAG.**

Intestine Large - Cecum  
Intestine Small - Jejunum  
Urinary Bladder

Intestine Large - Colon  
Stomach - Forestomach

Intestine Small - Duodenum  
Stomach - Glandular

Intestine Small - Ileum  
Trachea

**OBSERVATIONS**

Kidney  
Lymph Node  
Prostate  
Skin

Inguinal

Inflammation  
Hyperplasia  
Inflammation  
Acanthosis  
Ulcer

Suppurative, Mild  
Plasma Cell, Moderate  
Suppurative, Marked  
Mild  
Minimal

Note: ULCER TGLs = 1-21

Note: ACANTHOSIS TGLs = 1-21

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 112

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Pituitary Gland	Thymus
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**INSUFFICIENT TISSUE**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell Bilateral, Medulla	Hyperplasia Pheochromocytoma Benign	Mild
Bone Marrow		Angiectasis Myelofibrosis Ectopic Tissue	Mild Minimal
Gallbladder			
Note: THE ECTOPIC TISSUE IS PANCREAS.			
Heart	Myocardium Myocardium	Degeneration Karyomegaly	Mild Minimal
Kidney		Cyst Inflammation Metaplasia Regeneration Ectopic Tissue	Chronic, Mild Osseous, Mild Mild
	Renal Tubule		
Liver			
Lymph Node	Inguinal	Hyperplasia Inflammation	Lymphoid, Moderate Chronic, Moderate
Preputial Gland			
Note: INFLAMMATION TGLs = 3-15			
Skin		Acanthosis Fibrosis	Moderate Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 112

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ACANTHOSIS TGLs = 1-21

Note: [ FIBROSIS ] TGLs = 1-21

Stomach

Glandular

Inflammation

Chronic, Mild

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 113

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	Harderian Gland	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	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Spleen	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex	Developmental Malformation	
Brain		Mineralization	Moderate
Kidney		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Minimal
Lymph Node	Mesenteric	Hemorrhage	Mild
Note: HEMORRHAGE	TGLs = 2-8		
Skin		Acanthosis	Mild
		Inflammation	Chronic, Mild
		Pigmentation	Mild
Note: INFLAMMATION	TGLs = 1-21		
Note: ACANTHOSIS	TGLs = 1-21		
Note: PIGMENT	TGLs = 1-21		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 114

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 132

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland

**OBSERVATIONS**

Kidney		Casts Protein	Mild
Mammary Gland			
Note: THE CYSTIC HYPERPLASIA IS ON SLIDE 23.			
Prostate		Inflammation	Chronic Active, Mild
Note: PROSTATE IS PRESENT ON SLIDE 6B.			
Seminal Vesicle		Dilatation	Moderate
		Fibrosis	Mild
		Inflammation	Suppurative, Mild
Note: FIBROSIS TGLs = 2-7			
Note: DILATATION TGLs = 2-7			
Spleen	Lymph Follic	Depletion Cellular	Moderate
Note: DEPLETION TGLs = 3-2			
Thymus		Depletion Cellular	Moderate

**PRIMARY CAUSE OF DEATH** -

Animal Note: THERE IS NO SLIDE 21 PRESENT.

Animal Note: SLIDE 22 CONTAINS NORMAL PANCREAS.

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 115

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Harderian Gland
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
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Gallbladder	Mammary Gland
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**OBSERVATIONS**

Kidney	Renal Tubule	Regeneration	Minimal
Lung		Alveolar/Bronchiolar Adenoma	
		Inflammation	Suppurative, Minimal
Preputial Gland		Inflammation	Chronic, Mild
Note: INFLAMMATION TGLs = 2-15			
Salivary Glands		Inflammation	Chronic, Minimal

**PRIMARY CAUSE OF DEATH**

-

Animal Note: CONSIDERED ARTIFACT; NOT CODED.

Animal Note: MINERALIZED MATERIAL WITHIN CECAL MUCOSA;

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 116      **TRT#:** 3      **SEX:** Male      **DAY ON TEST:** 730  
**DOSE:** 262 MG/KG      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Gallbladder	Harderian Gland
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Liver
Lymph Node - Mandibular	Nose	Parathyroid Gland	Pituitary Gland
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Trachea	Urinary Bladder

**MISSING**

Lymph Node - Mesenteric      Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Medulla	Hyperplasia	Mild
Islets, Pancreatic		Hyperplasia	Moderate
Note: THE LESION IS PRESENT ON SLIDE 8.			
Kidney	Renal Tubule	Amyloid Deposition	Minimal
		Atrophy	Mild
		Inflammation	Chronic, Mild
Note: ATROPHY      TGLs = 4-7			
Lung	Alveolar Epith	Hyperplasia	Mild
Mesentery	Fat	Necrosis	Moderate
Note: NECROSIS      TGLs = 3-23			
Pancreas		Amyloid Deposition	Mild
		Atrophy	Mild
Note: THE LESIONS ARE PRESENT ON SLIDE 8.			
Prostate		Inflammation	Chronic, Mild
Salivary Glands		Inflammation	Chronic, Minimal
Thyroid Gland	Follicular Cel	Adenoma	
Tooth		Dysplasia	Mild

PRIMARY CAUSE OF DEATH      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 117

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Epididymis	Esophagus	Gallbladder
Harderian Gland	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lymph Node - Mandibular	Lymph Node - Mesenteric	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Stomach - Forestomach	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell Medulla	Hyperplasia Hyperplasia	Moderate Mild
Note: HYPERPLASIA TGLs = 6-8			
Bone Marrow		Hyperplasia	Reticulum Cell, Moderate
Brain		Mineralization	Mild
Heart		Hemangiosarcoma	
Kidney	Renal Tubule	Regeneration	Minimal
Liver		Hemangiosarcoma	
Note: HEMANGIOSARC TGLs = 7-23			
Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma Hyperplasia	Mild
Nose		Hemangiosarcoma Inflammation	Chronic, Mild
Note: THE LESION IS PRESENT ON SLIDE 12.			
Preputial Gland		Inflammation	Chronic, Mild
Note: INFLAMMATION TGLs = 4-15,4-15-1			
Salivary Glands		Inflammation	Chronic, Mild
Skin		Acanthosis Pigmentation Ulcer	Mild Mild Mild
Note: PIGMENT TGLs = 1-21			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 117

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ACANTHOSIS TGLs = 1-21

Note: ULCER TGLs = 1-21

Spleen

Lymphoma Malignant Mixed

Stomach

Glandular

Cyst

Glandular, Mucosa

Hyperplasia

Mild

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 118      **TRT#:** 3      **SEX:** Male      **DAY ON TEST:** 730  
**DOSE:** 262 MG/KG      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Epididymis
Esophagus	Harderian Gland	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
Salivary Glands	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Gallbladder      Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Minimal
Kidney		Mineralization	Minimal
Liver		Inflammation	Chronic, Minimal
	Lobules	Necrosis	Minimal
Pituitary Gland	Pars Distalis	Cyst	
Prostate	Epithelium	Hyperplasia	Mild
Skin		Basosquamous Tumor Benign	
Note: BASOSQU TM BGN    TGLs = 3-23			
Tooth		Inflammation	Suppurative, Mild

**PRIMARY CAUSE OF DEATH**      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 119

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Gallbladder
Harderian Gland	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
Skin	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**INSUFFICIENT TISSUE**

Prostate

**OBSERVATIONS**

Kidney		Cyst	
		Inflammation	Chronic, Mild
Liver	Hepatocyte	Vacuolization Cytoplasmic	Mild
Note: THE HEPATOCLR VACUOLIZ IS PRIMARILY CENTRIOBULAR			
Note: AND MIDZONAL.			
Lymph Node	Inguinal	Hyperplasia	Histiocytic, Moderate
Preputial Gland		Inflammation	Chronic, Marked
Note: INFLAMMATION TGLs = 2-15			
Salivary Glands		Inflammation	Chronic, Moderate
Spleen		Pigmentation	Hemosiderin, Mild
Note: PIGMENT TGLs = 3-2			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 120

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	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	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Spleen
Stomach - Forestomach	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Harderian Gland	Mammary Gland
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**OBSERVATIONS**

Brain		Mineralization	Mild
Kidney		Cyst	
		Inflammation	Chronic, Minimal
Lymph Node	Mesenteric	Hemorrhage	Mild
Salivary Glands		Inflammation	Chronic, Mild
Skin		Acanthosis	Minimal
Stomach	Glandular	Inflammation	Chronic Active, Moderate
Testes		Mineralization	Minimal
Tooth		Dysplasia	Moderate

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 121

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 344

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Gallbladder
Harderian Gland	Heart	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Islets, Pancreatic	Kidney	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Pituitary Gland
Prostate	Salivary Glands	Spleen	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Intestine Large - Cecum	Intestine Small - Ileum	Mammary Gland	Parathyroid Gland
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**AUTO PRECLUDES DIAG.**

Intestine Small - Jejunum

**OBSERVATIONS**

Liver		Hepatocellular Adenoma	
Lung	Perivascular	Edema	Mild
		Leukocytosis	Moderate
Skin		Acanthosis	Moderate
		Hemorrhage	Moderate
		Ulcer	Mild

Note: ULCER TGLs = 2-21

Note: HEMORRHAGE TGLs = 3-22

Note: ACANTHOSIS TGLs = 1-21

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 122

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 613

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Epididymis
Esophagus	Harderian Gland	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Lung	Mammary Gland
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Stomach - Forestomach	Stomach - Glandular
Testes	Trachea	Urinary Bladder	

**MISSING**

Gallbladder	Thymus
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**OBSERVATIONS**

Bone Marrow		Proliferation	Moderate
Brain		Mineralization	Mild
Kidney		Glomerulosclerosis	Mild
	Glomerulus	Hyperplasia	Moderate
		Inflammation	Chronic, Minimal
	Renal Tubule	Regeneration	Mild
Liver		Lymphoma Malignant Histiocytic	
	Lobules	Necrosis	Mild
Note: LYMPH MAL HIST	TGLs = 7-5		
Lymph Node		Lymphoma Malignant Histiocytic	
	Mandibular	Lymphoma Malignant Histiocytic	
	Mediastinal	Lymphoma Malignant Histiocytic	
	Mesenteric	Lymphoma Malignant Histiocytic	
Note: LYMPH MAL HIST	TGLs = 8-2		
Note: LYMPH MAL HIST	TGLs = 6-6-1		
Skin		Acanthosis	Moderate
	Subcut Tiss	Edema	Mild
	Subcut Tiss	Fibrosarcoma	
		Pigmentation	Mild
		Ulcer	Moderate
Note: PIGMENT	TGLs = 1-21		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 122

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 613

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: EDEMA TGLs = 9-8

Note: FIBROSARC TGLs = 2-22

Note: ULCER TGLs = 1-21

Note: ACANTHOSIS TGLs = 1-21

Spleen

Hematopoietic Cell Proliferation  
Lymphoma Malignant Histiocytic

Moderate

Note: LYMPH MAL HIST TGLs = 5-2

[ Lymphoma Malignant Histiocytic TGLs = 5-2 ]

Thyroid Gland

Cyst

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05002-06

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: gamma-Butyrolactone

CAS Number: 96-48-0

Date Report Requested: 10/20/2014

Time Report Requested: 03:23:07

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 123

TRT#: 3

SEX: Male

DAY ON TEST: 401

DOSE: 262 MG/KG

DISP: Dead

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Epididymis  
Intestine Large - Colon  
Kidney  
Lymph Node - Mesenteric  
Pituitary Gland  
Spleen  
Thymus  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Rectum  
Liver  
Nose  
Preputial Gland  
Stomach - Forestomach  
Thyroid Gland

Bone  
Harderian Gland  
Intestine Small - Duodenum  
Lung  
Pancreas  
Prostate  
Stomach - Glandular  
Tongue

Brain  
Heart  
Islets, Pancreatic  
Lymph Node - Mandibular  
Parathyroid Gland  
Salivary Glands  
Testes  
Trachea

MISSING

Intestine Large - Cecum

Intestine Small - Ileum

Intestine Small - Jejunum

Mammary Gland

AUTO PRECLUDES DIAG.

Gallbladder

OBSERVATIONS

Bone Marrow  
Skin

Hair Follicle

Proliferation  
Acanthosis  
Atrophy  
Ulcer

Mild  
Moderate  
Marked  
Moderate

Note: ACANTHOSIS TGLs = 1-21,2-22,4-23

[ Acanthosis TGLS = 1-21,2-22,4-23 ]

[ Ulcer TGLS = 1-21,2-22 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 124

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Gallbladder	Harderian Gland
Heart	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
Pancreas	Pituitary Gland	Prostate	Salivary Glands
Stomach - Forestomach	Stomach - Glandular	Testes	Thyroid Gland
Trachea			

**MISSING**

Mammary Gland	Parathyroid Gland	Thymus
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**OBSERVATIONS**

Adrenal Gland	Cortex	Adenoma	
	Cortex, Spindle Cell	Hyperplasia	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney	Renal Tubule	Atrophy	Minimal
		Inflammation	Chronic, Mild
		Mineralization	Minimal
	Renal Tubule	Regeneration	Minimal
Preputial Gland		Ectasia	Marked
		Inflammation	Chronic, Mild
Note: ECTASIA TGLs = 4-15			
Note: INFLAMMATION TGLs = 4-15			
Skeletal Muscle		Schwannoma Malignant	
Note: THE SCHWANNOMA MAL IS ON SLIDE 21.			
Skin		Acanthosis	Moderate
	Hair Follicle	Atrophy	Mild
		Pigmentation	Mild
	Subcut Tiss	Schwannoma Malignant	
Note: ACANTHOSIS TGLs = 1-21			
Note: SCHWANNOMA MAL TGLs = 1-21			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 124

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: ATROPHY TGLs = 2-22

Spleen

Erythrophagocytosis

Moderate

Urinary Bladder

Hyperplasia

Reticulum Cell, Moderate

Inflammation

Chronic, Mild

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 125

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 656

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Medulla	Hyperplasia	Mild
Brain		Mineralization	Moderate
Heart	Myocardium	Karyomegaly	Mild
Kidney	Renal Tubule	Atrophy	Minimal
	Renal Tubule	Regeneration	Moderate
Liver		Hepatocellular Adenoma	
Note: TGL 4 IS ON SLIDE III.			
Note: HEPATOCLR ADEN TGLs = 4			
Skin		Acanthosis	Minimal
	Hair Follicle	Atrophy	Moderate
		Inflammation	Chronic, Minimal
Note: TGL 1 IS ON SLIDE I.			
Note: ATROPHY TGLs = 1			
Stomach	Forestomach	Diverticulum	Moderate

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 126

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow	Epididymis	Esophagus	Gallbladder
Harderian Gland	Heart	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	Prostate
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Intestine Large - Cecum	Mammary Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex	Accessory Adrenal Cortical Nodule	
	Cortex, Spindle Cell	Hyperplasia	Mild
	Medulla	Hyperplasia	Minimal
Bone		Hyperostosis	Mild
Brain		Mineralization	Minimal
Kidney		Cyst	
		Infarct	Marked
Note: INFARCT TGLs = 5-7			
Mesentery	Artery	Inflammation	Chronic Active, Mild
Note: THE INFLAMMATION IS PRESENT ON SLIDE 6 AND 9.			
Pituitary Gland	Pars Distalis	Cyst	
Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic, Mild
Note: ECTASIA TGLs = 4-15			
Salivary Glands		Inflammation	Chronic, Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 127

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow	Brain	Epididymis	Esophagus
Gallbladder	Harderian Gland	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	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Spleen
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Moderate
	Medulla	Hyperplasia	Minimal
Bone	Coccygeal	Hyperplasia	Moderate
	Coccygeal	Inflammation	Suppurative, Moderate
Note: INFLAMMATION	TGLs = 3-23		
Note: HYPERPLASIA	TGLs = 3-23		
Kidney	Renal Tubule	Atrophy	Minimal
		Inflammation	Chronic, Moderate
Lung		Alveolar/Bronchiolar Adenoma	
Note: ALV BRON ADEN	TGLs = 5-4		
Skin		Acanthosis	Mild
Note: ACANTHOSIS	TGLs = 1-21		
Testes	Seminif Tub	Atrophy	Mild
		Mineralization	Minimal
Note: ATROPHY	TGLs = 4-9		
Thymus	Epithel Cell	Hyperplasia	Mild
Tooth		Dysplasia	Moderate
		Inflammation	Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 127

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 128

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland	Thymus
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**OBSERVATIONS**

Bone Note: HYPERPLASIA TGLs = 5-23	Coccygeal	Hyperplasia	Mild
Brain		Mineralization	Mild
Kidney		Adenoma	
		Cyst	
	Renal Tubule	Regeneration	Mild
Note: ADENOMA TGLs = 4-7			
Skin		Acanthosis	Moderate
		Pigmentation	Moderate
Note: PIGMENT TGLs = 1-21			
Note: ACANTHOSIS TGLs = 1-21			
Testes	Seminif Tub	Atrophy	Mild
		Mineralization	Mild
		Spermatocele	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 129

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 532

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Epididymis
Esophagus	Harderian Gland	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Lung	Lymph Node - Mesenteric
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Stomach - Forestomach	Testes
Trachea	Urinary Bladder		

**MISSING**

Gallbladder	Lymph Node - Mandibular	Mammary Gland	Preputial Gland
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**OBSERVATIONS**

Bone Marrow		Proliferation	Mild
Brain		Mineralization	Minimal
Intestine Small	Duodenum	Ulcer	Mild
Liver	Kupffer Cell	Hyperplasia	Moderate
	Lobules	Necrosis	Marked
Skin		Acanthosis	Minimal
		Inflammation	Chronic, Minimal
		Ulcer	Marked
Note: INFLAMMATION TGLs = 1-21			
Note: ACANTHOSIS TGLs = 1-21			
Note: ULCER TGLs = 2-22			
Spleen	Lymph Follic	Depletion Cellular	Moderate
Note: DEPLETION TGLs = 3-2			
Stomach	Glandular	Ulcer	Moderate
Thymus		Depletion Cellular	Moderate
Thyroid Gland		Cyst	

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 130

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 380

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Epididymis
Esophagus	Gallbladder	Harderian Gland	Heart
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Islets, Pancreatic
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland	Thymus
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**AUTO PRECLUDES DIAG.**

Intestine Large - Cecum	Intestine Small - Ileum	Intestine Small - Jejunum
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**OBSERVATIONS**

Bone Marrow		Proliferation	Mild
Brain		Mineralization	Minimal
Kidney		Inflammation	Suppurative, Mild
Lymph Node	Inguinal	Hyperplasia	Histiocytic, Moderate
	Inguinal	Hyperplasia	Plasma Cell, Mild
Preputial Gland		Inflammation	Chronic, Moderate
Prostate		Inflammation	Suppurative, Marked
Skeletal Muscle		Necrosis	Moderate
Note: NECROSIS	TGLs = 5-22		
Skin		Acanthosis	Mild
	Subcut Tiss	Edema	Mild
		Inflammation	Chronic, Moderate
Note: EDEMA	TGLs = 3-7-1		
Note: INFLAMMATION	TGLs = 3-7-1		
Note: ACANTHOSIS	TGLs = 1-21		
Urethra		Concretion	Marked
		Necrosis	Marked
Note: NECROSIS	TGLs = 5-22		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06

**Test Type:** CHRONIC

**Route:** GAVAGE

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** gamma-Butyrolactone

**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014

**Time Report Requested:** 03:23:07

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

**Lab:** SRI

---

**ANIMAL ID:** 130

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 380

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: CONCRETION TGLs = 5-22

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05002-06

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: gamma-Butyrolactone

CAS Number: 96-48-0

Date Report Requested: 10/20/2014

Time Report Requested: 03:23:07

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 131

TRT#: 3

SEX: Male

DAY ON TEST: 730

DOSE: 262 MG/KG

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	Harderian Gland	Heart
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Liver	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

MISSING

Intestine Large - Cecum	Mammary Gland
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OBSERVATIONS

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Moderate
Kidney		Cyst	
	Renal Tubule	Regeneration	Minimal
Preputial Gland		Inflammation	Chronic, Moderate
		Inflammation	Suppurative, Moderate
Note: INFLAMMATION	TGLs = 4-15		
Note: INFLAMMATION	TGLs = 4-15		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 132

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 412

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Harderian Gland	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Kidney	Liver
Lung	Lymph Node - Mesenteric	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Intestine Large - Rectum	Lymph Node - Mandibular	Mammary Gland
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**AUTO PRECLUDES DIAG.**

Gallbladder

**OBSERVATIONS**

Brain	Mineralization	Minimal
Skin	Acanthosis	Moderate
	Ulcer	Moderate
Note: ACANTHOSIS TGLs = 2-21		
Note: ULCER TGLs = 2-21		
Testes	Seminif Tub	Atrophy
		Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 133

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Gallbladder
Harderian Gland	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
Prostate	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland

**OBSERVATIONS**

Kidney		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Adenoma	
Note: HEPATOCLR ADEN	TGLs = 7-24		
Preputial Gland		Ectasia	Mild
Note: ECTASIA	TGLs = 5-15		
Salivary Glands		Inflammation	Chronic, Minimal
Skin		Acanthosis	Mild
	Hair Follicle	Atrophy	Mild
		Hyperplasia	Pseudoepithel, Mild
		Inflammation	Chronic, Minimal
Note: [ HYPERPLASIA ]	TGLs = 1-22,2-22		
Note: INFLAMMATION	TGLs = 3-23		
Note: ACANTHOSIS	TGLs = 1-21,2-22		
Note: ATROPHY	TGLs = 1-21,2-22		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 134

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 391

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex

Adrenal Gland - Medulla

Bone

Bone Marrow

Brain

Epididymis

Esophagus

Harderian Gland

Heart

Intestine Large - Cecum

Intestine Large - Colon

Intestine Large - Rectum

Intestine Small - Duodenum

Islets, Pancreatic

Kidney

Liver

Lung

Lymph Node - Mandibular

Nose

Pancreas

Parathyroid Gland

Pituitary Gland

Prostate

Salivary Glands

Spleen

Stomach - Forestomach

Stomach - Glandular

Testes

Thyroid Gland

Trachea

Urinary Bladder

**MISSING**

Gallbladder

Intestine Small - Ileum

Intestine Small - Jejunum

Lymph Node - Mesenteric

Mammary Gland

**OBSERVATIONS**

Skin

Acanthosis

Moderate

Hair Follicle

Atrophy

Moderate

Ulcer

Mild

[ Acanthosis TGLS = 1-21 ]

[ Atrophy TGLS = 1-21 ]

[ Ulcer TGLS = 1-21 ]

Thymus

Cyst

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 135

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Blood	Bone
Brain	Epididymis	Esophagus	Gallbladder
Harderian Gland	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
Prostate	Salivary Glands	Spleen	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Mammary Gland

**OBSERVATIONS**

Bone Marrow		Proliferation	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Liver		Basophilic Focus	
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
Preputial Gland		Inflammation	Chronic, Marked
Note: INFLAMMATION TGLs = 7-15			
Skin		Acanthosis	Mild
		Exudate	
	Subcut Tiss	Fibrosarcoma	
		Inflammation	Chronic, Moderate
Note: FIBROSARC TGLs = 3-22			
Note: INFLAMMATION TGLs = 2-21,4-23			
Note: ACANTHOSIS TGLs = 2-21,4-23			
Note: EXUDATE TGLs = 2-21			
Urethra	Bulboureth GI	Hyperplasia	Moderate
		Inflammation	Suppurative, Moderate
Note: HYPERPLASIA TGLs = 8-7-1			
[ Inflammation TGLS = 8-7-1 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 135

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**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:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 136

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 584

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	Harderian Gland
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Pancreas
Parathyroid Gland	Prostate	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Mammary Gland	Pituitary Gland	Thymus
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**OBSERVATIONS**

Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Casts Protein	Minimal
	Renal Tubule	Regeneration	Mild
Liver		Hepatocellular Carcinoma	
	Lobules	Necrosis	Minimal
Note: HEPATOCLR CARC	TGLs = 2-22,3-23		
Preputial Gland		Inflammation	Suppurative, Moderate
		Inflammation	Chronic, Moderate
Note: INFLAMMATION	TGLs = 1-21		
Note: INFLAMMATION	TGLs = 1-21		
Spleen		Hematopoietic Cell Proliferation	Mild
Testes		Mineralization	Mild

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 137

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone Marrow	Brain
Epididymis	Esophagus	Harderian Gland	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Liver	Lymph Node - Mandibular
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Prostate	Salivary Glands	Spleen	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Gallbladder

**OBSERVATIONS**

Bone	Coccygeal	Hyperplasia	Mild
	Coccygeal	Inflammation	Chronic, Mild
Note: INFLAMMATION TGLs = 6-22			
Note: HYPERPLASIA TGLs = 6-22			
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Cyst	
	Renal Tubule	Regeneration	Minimal
Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Histiocyte, Moderate
Note: ALV BRON ADEN TGLs = 5-4			
Lymph Node	Mesenteric	Hemorrhage	Mild
Note: HEMORRHAGE TGLs = 4-8			
Pituitary Gland	Pars Distalis	Cyst	
Preputial Gland		Ectasia	Mild
		Inflammation	Chronic, Moderate
Note: INFLAMMATION TGLs = 2-15			
Note: ECTASIA TGLs = 2-15			
Skin		Acanthosis	Mild
Note: ACANTHOSIS TGLs = 1-21			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 137	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth	Dysplasia Inflammation	Mild Suppurative, Moderate
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PRIMARY CAUSE OF DEATH

-

Animal Note: THE RECTUM IS PRESENT ON SLIDE 8.

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05002-06

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: gamma-Butyrolactone

CAS Number: 96-48-0

Date Report Requested: 10/20/2014

Time Report Requested: 03:23:07

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 138

TRT#: 3

DOSE: 262 MG/KG

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Epididymis	Esophagus
Gallbladder	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
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Seminal Vesicle	Spleen
Stomach - Forestomach	Stomach - Glandular	Testes	Trachea
Urinary Bladder			

MISSING

Eye	Mammary Gland
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OBSERVATIONS

Adrenal Gland	Cortex	Cyst	
	Medulla	Pheochromocytoma Benign	
Note: CYST	TGLs = 5-8		
Brain		Mineralization	Mild
Harderian Gland		Inflammation	Chronic, Moderate
Kidney		Inflammation	Chronic, Minimal
	Renal Tubule	Regeneration	Minimal
Lymph Node	Mesenteric	Hemorrhage	Minimal
Note: HEMORRHAGE	TGLs = 6-8		
Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic, Marked
		Inflammation	Suppurative, Marked
Note: INFLAMMATION	TGLs = 3-15		
Note: INFLAMMATION	TGLs = 3-15		
Skin		Acanthosis	Mild
		Inflammation	Chronic, Minimal
Note: ACANTHOSIS	TGLs = 1-21		
Note: INFLAMMATION	TGLs = 1-21		
Thyroid Gland		Cyst	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 138

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Follicular Cel

Hyperplasia  
Inflammation

Mild  
Suppurative, Minimal

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 139

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 605

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Epididymis	Esophagus	Gallbladder	Harderian Gland
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
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Mammary Gland	Prostate
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**OBSERVATIONS**

Bone Marrow		Proliferation	Moderate
Heart	Myocardium	Inflammation	Chronic, Minimal
Liver	Kupffer Cell	Hepatocellular Adenoma	
		Hyperplasia	Moderate
Note: HEPATOCLR ADEN TGLs = 3-23			
Note: HYPERPLASIA TGLs = 3-23			
Skin	Subcut Tiss	Fibrosarcoma	
		Ulcer	Moderate
Note: THE ULCER IS PRESENT ON SLIDE 8.			
Note: FIBROSARC TGLs = 2-22			
Spleen		Hematopoietic Cell Proliferation	Moderate
Testes		Mineralization	Mild

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 140

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 519

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone Marrow	Epididymis
Esophagus	Gallbladder	Harderian Gland	Heart
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
Parathyroid Gland	Penis	Pituitary Gland	Prostate
Salivary Glands	Stomach - Forestomach	Stomach - Glandular	Testes
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Mammary Gland

**OBSERVATIONS**

Bone	Tarsal	Hyperplasia	Moderate
	Tarsal	Inflammation	Suppurative, Marked
Note: INFLAMMATION TGLs = 3-23			
Note: HYPERPLASIA TGLs = 3-23			
Brain		Mineralization	Minimal
Lung	Perivascular	Edema	Mild
Pancreas		Fibrosis	Mild
		Necrosis	Moderate
Note: NECROSIS TGLs = 2-22			
Note: FIBROSIS TGLs = 2-22			
Skin	Hair Follicle	Atrophy	Mild
		Inflammation	Chronic, Minimal
Note: INFLAMMATION TGLs = 1-21			
Note: ATROPHY TGLs = 1-21			
Spleen	Lymph Follic	Depletion Cellular	Mild
	Red Pulp	Depletion Cellular	Mild
Note: DEPLETION TGLs = 5-2			
Note: DEPLETION TGLs = 5-2			
Thymus		Depletion Cellular	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 140

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 519

**DOSE:** 262 MG/KG

**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:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 141

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 151

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Epididymis	Esophagus	Gallbladder	Harderian Gland
Heart	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
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Seminal Vesicle	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**OBSERVATIONS**

Bone Marrow		Proliferation	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney	Renal Tubule	Dilatation	Moderate
Note: DILATATION TGLs = 6-6			
Lymph Node	Iliac	Hyperplasia	Lymphoid, Mild
	Inguinal	Hyperplasia	Lymphoid, Mild
	Renal	Hyperplasia	Lymphoid, Mild
Note: HYPERPLASIA TGLs = 7-22			
Note: HYPERPLASIA TGLs = 10-8			
Note: HYPERPLASIA TGLs = 8-23			
Prostate		Inflammation	Suppurative, Mild
Skin		Acanthosis	Mild
		Exudate	
		Inflammation	Chronic, Minimal
		Pigmentation	Mild
Note: EXUDATE TGLs = 1-21			
Note: PIGMENT TGLs = 1-21			
Note: INFLAMMATION TGLs = 1-21			
Note: ACANTHOSIS TGLs = 1-21			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 141

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 151

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen

Hematopoietic Cell Proliferation

Moderate

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:07  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 142

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Bone	Coccygeal	Hyperplasia	Moderate
	Coccygeal	Inflammation	Chronic, Moderate
Note: HYPERPLASIA TGLs = 5-24			
Note: INFLAMMATION TGLs = 5-24			
Kidney	Renal Tubule	Regeneration	Minimal
Mesentery	Artery	Inflammation	Chronic Active, Mild
Note: INFLAMMATION IS PRESENT ON SLIDE 7 ADJACENT TO KIDNEY.			
Skin		Acanthosis	Mild
	Subcut Tiss	Fibrosarcoma	
		Inflammation	Chronic, Moderate
Note: CHRONIC INFLAMMATION IS ALSO PRESENT ON SLIDE 8.			
Note: FIBROSARC TGLs = 2-22			
Note: INFLAMMATION TGLs = 1-21			
Note: ACANTHOSIS TGLs = 1-21			
Thymus	Epithel Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 143

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 146

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Epididymis	Esophagus	Gallbladder	Harderian Gland
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Stomach - Forestomach	Stomach - Glandular
Testes	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Mammary Gland

**OBSERVATIONS**

Bone Marrow		Proliferation	Moderate
Kidney	Renal Tubule	Dilatation	Mild
		Mineralization	Minimal
Note: DILATATION	TGLs = 4-6		
Skin		Acanthosis	Mild
		Exudate	
Note: ACANTHOSIS	TGLs = 1-21		
Note: EXUDATE	TGLs = 1-21		
Spleen		Hematopoietic Cell Proliferation	Mild
Thymus		Depletion Cellular	Moderate
Urethra		Inflammation	Suppurative, Moderate
Note: INFLAMMATION	TGLs = 2-7		

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 144      **TRT#:** 3      **SEX:** Male      **DAY ON TEST:** 187  
**DOSE:** 262 MG/KG      **DISP:** Dead      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Epididymis	Esophagus	Gallbladder	Harderian Gland
Heart	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Liver	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Mammary Gland

**AUTO PRECLUDES DIAG.**

Intestine Large - Cecum      Intestine Large - Colon

**INSUFFICIENT TISSUE**

Intestine Small - Ileum

**OBSERVATIONS**

Bone Marrow	Proliferation	Mild
Lung	Alveolar/Bronchiolar Adenoma	
Skin	Acanthosis	Moderate
	Fibrosis	Moderate
	Hemorrhage	Moderate
	Inflammation	Chronic Active, Moderate
	Pigmentation	Minimal
	Ulcer	Mild
Note: ACANTHOSIS      TGLs = 2-21,4-23		
Note: FIBROSIS      TGLs = 2-21		
Note: HEMORRHAGE      TGLs = 4-23		
Note: ULCER      TGLs = 2-21		
[ Acanthosis TGLS = 4-23 ]		
Spleen	Hematopoietic Cell Proliferation	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 144

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 187

**DOSE:** 262 MG/KG

**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:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 145	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<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
Epididymis	Esophagus	Gallbladder	Harderian Gland
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Pancreas	Pituitary Gland	Prostate
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Testes	Thyroid Gland	Trachea	Urinary Bladder

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**MISSING**

Mammary Gland	Thymus
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**OBSERVATIONS**

Brain	Mineralization	Mild
Kidney	Cyst	
Parathyroid Gland	Cyst	
Preputial Gland	Ectasia	Moderate
Note: ECTASIA TGLs = 2-15		
Salivary Glands	Inflammation	Chronic, Mild

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 146

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 436

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Epididymis
Esophagus	Gallbladder	Harderian Gland	Heart
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	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	

**MISSING**

Intestine Large - Cecum	Mammary Gland
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**OBSERVATIONS**

Bone Marrow		Proliferation	Moderate
Brain		Mineralization	Minimal
Kidney		Inflammation	Suppurative, Marked
	Renal Tubule	Necrosis	Moderate
Note: NECROSIS TGLs = 7-6			
Note: INFLAMMATION TGLs = 7-6			
Lymph Node	Inguinal	Hyperplasia	Histiocytic, Mild
	Inguinal	Hyperplasia	Plasma Cell, Mild
Note: HYPERPLASIA TGLs = 8-8			
Note: HYPERPLASIA TGLs = 8-8			
Pancreas		Fibrosis	Mild
Note: FIBROSIS TGLs = 6-7			
Prostate		Fibrosis	Moderate
		Inflammation	Suppurative, Marked
Seminal Vesicle		Fibrosis	Moderate
		Inflammation	Suppurative, Marked
Note: INFLAMMATION TGLs = 6-7			
Note: FIBROSIS TGLs = 6-7			
Skeletal Muscle		Necrosis	Marked
Note: NECROSIS TGLs = 5-22			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 146

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 436

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

Spleen		Hematopoietic Cell Proliferation	Marked
Testes		Fibrosis	Marked
		Mineralization	Moderate
Note: FIBROSIS	TGLs = 4-7		
Note: MINERALIZATION	TGLs = 4-7		
Thymus		Depletion Cellular	Moderate
Urethra	Mucosa	Hyperplasia	Moderate
		Inflammation	Suppurative, Moderate
Note: HYPERPLASIA	TGLs = 5-22		
Note: INFLAMMATION	TGLs = 5-22		
Urinary Bladder	Mucosa	Hyperplasia	Mild
		Inflammation	Suppurative, Marked
Note: HYPERPLASIA	TGLs = 3-6-1		
Note: INFLAMMATION	TGLs = 3-6-1		

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 147

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	Heart	Intestine Large - Cecum
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Liver	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Harderian Gland	Intestine Large - Colon	Mammary Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex	Adenoma	
Brain		Mineralization	Minimal
Islets, Pancreatic		Hyperplasia	Moderate
Kidney		Inflammation	Chronic, Mild
Lung		Alveolar/Bronchiolar Adenoma	
Skeletal Muscle		Inflammation	Chronic, Mild
Note: THE INFLAMMATION IS PRESENT ON SLIDE 12.			
Spleen		Hematopoietic Cell Proliferation	Mild

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 148

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 270

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Gallbladder
Harderian Gland	Heart	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	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Spleen	Stomach - Forestomach
Stomach - Glandular	Testes	Thymus	Thyroid Gland
Trachea			

**MISSING**

Mammary Gland

**AUTO PRECLUDES DIAG.**

Urinary Bladder

**OBSERVATIONS**

Lung		Leukocytosis	Mild
Lymph Node	Inguinal	Hyperplasia	Histiocytic, Mild
Note: HYPERPLASIA TGLs = 4-8			
Prostate		Inflammation	Suppurative, Mild
Skin	Hair Follicle	Acanthosis	Moderate
		Atrophy	Mild
		Ulcer	Mild
Note: ULCER TGLs = 2-21			
Note: ACANTHOSIS TGLs = 1-21			
[ Acanthosis TGLS = 1-21 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 149

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 584

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Gallbladder	Harderian Gland
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Pancreas	Parathyroid Gland	Pituitary Gland	Prostate
Salivary Glands	Stomach - Forestomach	Stomach - Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Lymph Node - Mandibular	Mammary Gland
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**OBSERVATIONS**

Brain		Mineralization	Mild
Kidney		Casts Protein	Moderate
	Renal Tubule	Regeneration	Moderate
Liver		Hepatocellular Carcinoma	
	Lobules	Necrosis	Minimal
Note: HEPATOCLR CARC	TGLs = 2-22		
Lung		Thrombosis	
Lymph Node	Mesenteric	Hemorrhage	Mild
Note: HEMORRHAGE	TGLs = 3-6-1		
Nose		Foreign Body	Minimal
Skin		Acanthosis	Moderate
		Exudate	
		Inflammation	Chronic, Mild
Note: EXUDATE	TGLs = 1-21		
Note: ACANTHOSIS	TGLs = 1-21		
Note: INFLAMMATION	TGLs = 1-21		
Spleen		Hematopoietic Cell Proliferation	Mild

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 150

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Gallbladder	Harderian Gland	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	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Prostate	Salivary Glands	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Mammary Gland

**OBSERVATIONS**

Adrenal Gland	Medulla	Pheochromocytoma Benign	
Brain		Mineralization	Minimal
Kidney	Renal Tubule	Atrophy	Minimal
	Renal Tubule	Regeneration	Minimal
Lung		Alveolar/Bronchiolar Adenoma	
		Hemorrhage	Mild
Lymph Node	Mesenteric	Hemorrhage	Mild
	Inguinal	Hyperplasia	Plasma Cell, Mild
Note: HYPERPLASIA TGLs = 3-10			
Skin		Acanthosis	Moderate
		Inflammation	Chronic, Moderate
		Pigmentation	Moderate
Note: PIGMENT TGLs = 1-21			
Note: INFLAMMATION TGLs = 1-21,2-22			
Note: ACANTHOSIS TGLs = 1-21			
Testes	Seminif Tub	Atrophy	Mild

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**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> 730
	<b>DOSE:</b> VEHICLE 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	Esophagus	Gallbladder
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	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Kidney		Casts Protein	Minimal
		Inflammation	Chronic, Mild
Liver		Inflammation	Chronic, Minimal
Ovary		Cystadenoma	
Stomach	Forestomach, Mucosa	Hyperplasia	Minimal
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hemorrhage	Mild
		Hyperplasia	Cystic, Moderate

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Note: HYPERPLASIA TGLs = 3-7

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 2                      **TRT#:** 2                      **SEX:** Female                      **DAY ON TEST:** 697  
**DOSE:** VEHICLE CONTROL                      **DISP:** Moribund                      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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	Stomach - Glandular	Trachea	

**MISSING**

Thymus

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Compression	
		Mineralization	Minimal
		Vacuolization Cytoplasmic	Moderate
[ Compression TGLS = 5-1 ]			
Kidney		Casts Protein	Minimal
	Renal Tubule	Dilatation	Mild
		Inflammation	Chronic, Minimal
		Metaplasia	Osseous, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA      TGLs = 4-1			
Skin	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC      TGLs = 1-21			
Spleen		Hematopoietic Cell Proliferation	Moderate
Note: HEMA CELL PROL      TGLs = 2-2			
Stomach	Forestomach, Mucosa	Hyperplasia	Moderate
Thyroid Gland	Follicular Cel	Hyperplasia	Moderate
		Inflammation	Chronic, Mild
Note: HYPERPLASIA      TGLs = 3-3			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**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> 697
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>		
Urinary Bladder	Inflammation	Chronic, Mild
Uterus	Hyperplasia	Cystic, Moderate

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

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> VEHICLE 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	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Nose	Ovary
Pancreas	Parathyroid Gland	Pituitary Gland	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea			

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Moderate
Bone Marrow		Myelofibrosis	Mild
Kidney		Lymphoma Malignant Mixed	
Liver	Kupffer Cell	Lymphoma Malignant Mixed	
	Mesenteric	Pigmentation	Moderate
Lymph Node	Mandibular	Hemorrhage	Moderate
	Mesenteric	Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 5-6-1 ]	Lymphoma Malignant Mixed	
Mammary Gland		Hyperplasia	Cystic, Minimal
Salivary Glands		Lymphoma Malignant Mixed	
Spleen		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 4-2 ]		
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Mild

Note: HYPERPLASIA TGLs = 3-7

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**PRIMARY CAUSE OF DEATH** -

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Animal Note: THE MAL LYMPH HAD SOME FEATURES OF A LYMPH MAL LYMP TYPE.

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 4                      **TRT#:** 2                      **SEX:** Female                      **DAY ON TEST:** 730  
**DOSE:** VEHICLE CONTROL                      **DISP:** Terminal Sacrifice                      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Glandular	Thymus	Trachea

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Moderate
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Minimal
Kidney		Inflammation	Chronic, Mild
Lung		Infiltration Cellular	Histiocyte, Mild
		Inflammation	Chronic, Moderate
Ovary		Cyst	
Note: CYST                      TGLs = 5-7			
Pancreas		Inflammation	Chronic, Minimal
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Mild
Stomach	Forestomach, Mucosa	Hyperplasia	Moderate
	Forestomach	Squamous Cell Papilloma	
Thyroid Gland		Inflammation	Chronic, Moderate
Urinary Bladder		Inflammation	Chronic, Moderate
Uterus		Hyperplasia	Cystic, Moderate
		Sarcoma Stromal	
Note: SARC STROMAL                      TGLs = 4-7			
Note: HYPERPLASIA                      TGLs = 3-7			

**PRIMARY CAUSE OF DEATH**                      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 5                      **TRT#:** 2                      **SEX:** Female                      **DAY ON TEST:** 730  
**DOSE:** VEHICLE CONTROL                      **DISP:** Terminal Sacrifice                      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Nose	Ovary	Parathyroid Gland	Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea			

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Moderate
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Kidney		Lymphoma Malignant Mixed	
Liver		Lymphoma Malignant Mixed	
	Lobules	Mineralization	Moderate
		Necrosis	Marked
Note: MINERALIZATION TGLs = 5-24			
Note: NECROSIS TGLs = 5-24			
Lung		Lymphoma Malignant Mixed	
Lymph Node	Bronchial	Lymphoma Malignant Mixed	
	Iliac	Lymphoma Malignant Mixed	
	Lumbar	Lymphoma Malignant Mixed	
	Mandibular	Lymphoma Malignant Mixed	
	Mediastinal	Lymphoma Malignant Mixed	
	Mesenteric	Lymphoma Malignant Mixed	
	Renal	Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 9-28			
Note: LYMPH MAL MIXD TGLs = 8-27			
Note: LYMPH MAL MIXD TGLs = 7-26			
Note: LYMPH MAL MIXD TGLs = 6-25			
Note: LYMPH MAL MIXD TGLs = 10-29			
Mammary Gland		Carcinoma	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 2 <b>DOSE:</b> VEHICLE CONTROL	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b>
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
Note: CARCINOMA Pancreas TGLs = 3-23		Hyperplasia	Cystic, Mild
Pituitary Gland	Pars Distalis	Lymphoma Malignant Mixed	
	Pars Distalis	Angiectasis	Mild
Note: HYPERPLASIA Spleen TGLs = 11-1		Hyperplasia	Moderate
Note: LYMPH MAL MIXD Thymus TGLs = 4-2		Lymphoma Malignant Mixed	
Urinary Bladder		Lymphoma Malignant Mixed	Chronic, Mild
Uterus		Inflammation	
		Hyperplasia	Cystic, Mild
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 6                      **TRT#:** 2                      **SEX:** Female                      **DAY ON TEST:** 730  
**DOSE:** VEHICLE CONTROL                      **DISP:** Terminal Sacrifice                      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	

**INSUFFICIENT TISSUE**

Ovary

**OBSERVATIONS**

Adrenal Gland	Cortex	Inflammation	Chronic, Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Compression	
		Infiltration Cellular	Histiocyte, Mild
		Pigmentation	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Adenoma	
		Lymphoma Malignant Mixed	
	Hepatocyte	Vacuolization Cytoplasmic	Marked
Mammary Gland		Hyperplasia	Cystic, Mild
Pituitary Gland	Pars Intermed	Adenoma	
Note: ADENOMA      TGLs = 5-1			
Spleen		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD      TGLs = 4-2			
Thymus		Lymphoma Malignant Mixed	
Urinary Bladder		Inflammation	Chronic, Minimal
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA      TGLs = 3-7			
Vagina		Polyp	

PRIMARY CAUSE OF DEATH                      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 6

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 7                      **TRT#:** 2                      **SEX:** Female                      **DAY ON TEST:** 630  
**DOSE:** VEHICLE CONTROL                      **DISP:** Dead                      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	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	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach - Forestomach	Thymus	Thyroid Gland
Trachea	Uterus		

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Hemorrhage	Mild
		Mineralization	Mild
		Necrosis	Moderate
Harderian Gland		Carcinoma	
Note: CARCINOMA      TGLs = 4-22+10+11+12			
Lung		Carcinoma	Metastatic (Harderian Gland)
Note: CARCINOMA      TGLs = 3-4		Infiltration Cellular	Histiocyte, Moderate
Mammary Gland		Hyperplasia	Cystic, Minimal
Ovary		Inflammation	Chronic, Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Spleen	Lymph Follic	Depletion Cellular	Mild
	Red Pulp	Depletion Cellular	Mild
[ Depletion Cellular TGLS = 2-2 ]			
[ Depletion Cellular TGLS = 2-2 ]			
Stomach	Glandular	Ulcer	Moderate
Urinary Bladder		Inflammation	Chronic, Mild

PRIMARY CAUSE OF DEATH                      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 8      **TRT#:** 2      **SEX:** Female      **DAY ON TEST:** 730  
**DOSE:** VEHICLE CONTROL      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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	Stomach - Forestomach	Thymus
Trachea			

**MISSING**

Pituitary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Moderate
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Kidney	Renal Tubule	Atrophy	Mild
	Renal Tubule	Inflammation	Chronic, Mild
		Regeneration	Mild
Mammary Gland		Infiltration Cellular	Histiocyte, Marked
Spleen		Hyperplasia	Lymphoid, Mild
Stomach	Glandular	Mineralization	Mild
Thyroid Gland	Follicular Cel	Hyperplasia	Minimal
Urinary Bladder		Inflammation	Chronic, Minimal
Uterus		Hyperplasia	Cystic, Marked

Note: HYPERPLASIA      TGLs = 1-7

**PRIMARY CAUSE OF DEATH**      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 2 <b>DOSE:</b> VEHICLE CONTROL	<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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**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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 - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Stomach	Forestomach, Mucosa	Hyperplasia	Mild
Uterus		Hyperplasia	Cystic, Marked

Note: HYPERPLASIA TGLs = 2-7

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 10

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 673

**DOSE:** VEHICLE CONTROL

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	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
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
		Proliferation	Mild
Harderian Gland		Adenoma	
Note: ADENOMA	TGLs = 1-21		
Kidney		Casts Protein	Minimal
		Mineralization	Minimal
	Renal Tubule	Necrosis	Mild
Liver	Kupffer Cell	Hyperplasia	Mild
	Hepatocyte	Vacuolization Cytoplasmic	Moderate
Note: VACUOLIZ CYTO	TGLs = 3-5		
Lung		Infiltration Cellular	Histiocyte, Marked
Note: PIGMENT SUGGESTIVE OF HEMOSIDERIN.			
Note: MOST OF THE HISTIOCYTES CONTAIN A BROWNISH			
Nose		Exudate	
Spleen	Lymph Follic	Depletion Cellular	Moderate
	Red Pulp	Depletion Cellular	Moderate
Uterus		Exudate	
		Hyperplasia	Cystic, Mild
		Polyp Stromal	
Note: HYPERPLASIA	TGLs = 2-7		

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 11	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 592
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Bone Marrow	Brain	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell Medulla	Hyperplasia Hyperplasia Inflammation	Mild Minimal Chronic, Mild
Kidney		Hepatocellular Carcinoma	
Liver		Inflammation	Chronic, Mild
[ Inflammation TGLS = 3-22 ]			
Salivary Glands		Inflammation	Chronic, Moderate
Spleen		Hyperplasia	Lymphoid, Mild
Uterus		Hyperplasia	Cystic, Mild

Note: HYPERPLASIA TGLs = 2-7

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 12

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Esophagus	Gallbladder	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	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach - Glandular
Thymus	Trachea	Urinary Bladder	

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell Medulla	Hyperplasia Hyperplasia	Mild Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Kidney	Renal Tubule	Atrophy	Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
Nose		Exudate	
Ovary		Cyst Hemorrhage	Marked
Note: HEMORRHAGE	TGLs = 2-7		
Note: CYST	TGLs = 2-7		
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Spleen		Hematopoietic Cell Proliferation	Moderate
Stomach	Forestomach Forestomach, Mucosa	Diverticulum Hyperplasia	Moderate Minimal
Thyroid Gland	Follicular Cel	Hyperplasia	Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA	TGLs = 3-7		

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 13	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

---

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Kidney		Casts Protein	Minimal
Mesentery	Fat	Inflammation	Granulomatous, Marked
	Fat	Necrosis	Marked
Note: NECROSIS TGLs = 3-23			
Note: PART OF THE LESION(TGL 24) INVOLVES LIVER SEROSA.			
[ Inflammation TGLs = 3-23,5-24 ]			
Skin		Fibrosis	Mild
		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 4-7			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 14	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Lung	Lymph Node - Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	

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**MISSING**

Lymph Node - Mandibular

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Liver		Inflammation	Chronic, Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Spleen		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 4-2			
Stomach	Forestomach, Mucosa	Hyperplasia	Minimal
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Exudate	
		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 3-7			

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 15

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Kidney		Inflammation	Chronic, Mild
Liver		Inflammation	Chronic, Minimal
Lung		Inflammation	Chronic, Mild
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Marked

[ Hyperplasia TGLS = 1-7,2-7 ]

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 16	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> VEHICLE 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	Esophagus
Gallbladder	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	Ovary	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Kidney		Inflammation	Chronic, Mild
Lung	Alveolar Epith	Hyperplasia	Mild
Pancreas		Inflammation	Chronic, Marked
		Necrosis	Marked
		Pigmentation	Marked
Note: NECROSIS TGLs = 4-23			
Stomach	Forestomach	Squamous Cell Papilloma	
Note: PAPILOMA SQUA TGLs = 5-5-1			
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 3-7			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 17

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Ovary
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

**MISSING**

Pituitary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex	Accessory Adrenal Cortical Nodule	
	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Gallbladder		Inflammation	Chronic, Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Inflammation	Chronic, Mild
Liver		Inflammation	Chronic, Mild
Lung		Inflammation	Chronic, Mild
Mesentery	Fat	Necrosis	Marked
Note: NECROSIS	TGLs = 3-23		
Pancreas		Inflammation	Chronic, Moderate
		Necrosis	Marked
Stomach	Forestomach, Mucosa	Hyperplasia	Minimal
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 5-7		

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 18	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> VEHICLE 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	Esophagus	Gallbladder
Heart	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
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Minimal
Lung		Alveolar/Bronchiolar Adenoma	
Note: ALV BRON ADEN TGLs = 3-4			
Ovary		Granulosa-Theca Tumor Malignant	
Pituitary Gland	Pars Distalis	Adenoma	
Salivary Glands		Inflammation	Chronic, Mild
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Granulosa-Theca Tumor Malignant	Metastatic (Ovary)
		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 2-7			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 19	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> VEHICLE 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	Esophagus
Gallbladder	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	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Note: HYPERPLASIA TGLs = 4-6-1			
Bone Marrow		Myelofibrosis	Minimal
Kidney		Casts Protein	Minimal
		Inflammation	Chronic, Mild
Lung		Inflammation	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
Ovary		Hemorrhage	Mild
Thyroid Gland	Follicular Cel	Hyperplasia	Minimal
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 3-7			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 20	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Bone Marrow	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland
Nose	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea			

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell Medulla	Hyperplasia Hyperplasia	Mild Mild
Brain		Mineralization	Minimal
Kidney		Inflammation	Chronic, Mild
Liver		Inflammation	Chronic, Minimal
Urinary Bladder		Inflammation	Chronic, Moderate
Uterus		Hyperplasia	Cystic, Moderate

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 21

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Jejunum	Liver
Lung	Lymph Node - Mesenteric	Mammary Gland	Nose
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea

**MISSING**

Intestine Small - Ileum

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Minimal
Islets, Pancreatic		Hyperplasia	Mild
Kidney	Renal Tubule	Atrophy	Mild
		Lymphoma Malignant Lymphocytic Metaplasia	Osseous, Mild
Lymph Node	Bronchial Mandibular	Lymphoma Malignant Lymphocytic	
		Lymphoma Malignant Lymphocytic	
Ovary		Cyst	
Note: CYST	TGLs = 3-7		
Pancreas		Lymphoma Malignant Lymphocytic	
Spleen		Lymphoma Malignant Lymphocytic	
Note: LYMPH MAL LYMP	TGLs = 5-2		
Thymus		Lymphoma Malignant Lymphocytic	
Urinary Bladder		Inflammation	Chronic, Moderate
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 4-7		

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 22	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Skin	Spleen	Stomach - Glandular	Thymus
Trachea			

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**MISSING**

Ovary

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Islets, Pancreatic		Adenoma	
Kidney		Inflammation	Chronic, Mild
Liver	Hepatocyte	Vacuolization Cytoplasmic	Mild
Stomach	Forestomach, Mucosa	Hyperplasia	Mild
Thyroid Gland		Cyst	
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate

Note: HYPERPLASIA TGLs = 3-7

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 23	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> VEHICLE 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	Esophagus	Gallbladder
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	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea			

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Minimal
Mammary Gland		Hyperplasia	Cystic, Minimal
Mesentery		Accessory Spleen	
Note: ACCESSORY SPLN TGLs = 5-5-1			
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 3-7,4-7			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 24

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Minimal
Kidney		Lymphoma Malignant Lymphocytic	
Lymph Node	Axillary	Lymphoma Malignant Lymphocytic	
	Iliac	Lymphoma Malignant Lymphocytic	
	Mandibular	Lymphoma Malignant Lymphocytic	
	Mediastinal	Lymphoma Malignant Lymphocytic	
	Mesenteric	Lymphoma Malignant Lymphocytic	
	Renal	Lymphoma Malignant Lymphocytic	
Note: LYMPH MAL LYMP TGLs = 3-2			
Note: LYMPH MAL LYMP TGLs = 10-26			
Note: LYMPH MAL LYMP TGLs = 4-23			
Note: LYMPH MAL LYMP TGLs = 9-25			
Note: LYMPH MAL LYMP TGLs = 11-2			
Ovary		Cyst	
Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Mild
Spleen		Lymphoma Malignant Lymphocytic	
Note: LYMPH MAL LYMP TGLs = 8-2			
Thymus		Lymphoma Malignant Lymphocytic	
Urinary Bladder		Lymphoma Malignant Lymphocytic	
Uterus		Hemorrhage	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 24

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Hydrometra

Moderate

Hyperplasia

Cystic, Moderate

Note: HYPERPLASIA TGLs = 5-24

Note: HYDROMETRA TGLs = 6-7

Note: HEMORRHAGE TGLs = 5-24

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 25	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> VEHICLE 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	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Intestine Small	Ileum	Lymphoma Malignant Mixed	
Kidney		Inflammation	Chronic, Mild
Ovary		Cyst	
Note: CYST	TGLs = 4-7		
Salivary Glands		Inflammation	Chronic, Mild
Stomach			
Note: NOT CONSIDERED LESION.			
Note: TANGENTIAL SECTION OF FORESTOMACH;			
Urinary Bladder		Inflammation	Chronic, Moderate
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 3-7		

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 26

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 617

**DOSE:** VEHICLE CONTROL

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Esophagus	Heart	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Ovary
Pancreas	Parathyroid Gland	Pituitary Gland	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea			

**OBSERVATIONS**

Gallbladder		Inflammation	Chronic, Mild
Intestine Large	Cecum	Edema	Mild
Kidney	Renal Tubule	Atrophy	Minimal
		Casts Protein	Minimal
		Cyst	
		Inflammation	Chronic, Mild
Salivary Glands		Inflammation	Chronic, Mild
Spleen		Hematopoietic Cell Proliferation	Moderate
	[ Hematopoietic Cell Proliferation TGLS = 3-2 ]		
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hemangiosarcoma	
Note: HEMANGIOSARC	TGLs = 2-7		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 27	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 584
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Gland - Medulla	Bone Marrow	Esophagus	Gallbladder
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	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Trachea			

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone		Osteosarcoma	
Brain		Mineralization	Minimal
Intestine Large	Cecum	Edema	Mild
Kidney		Inflammation	Chronic, Mild
Liver		Inflammation	Chronic, Mild
Lung	Alveolar Epith	Hyperplasia	Mild
		Osteosarcoma	Metastatic (Bone)
Note: THE OSTEOSARCOMA IS PRESENT ON SLIDE #41-1.			
Mammary Gland		Hyperplasia	Cystic, Minimal
Spinal Cord		Degeneration	Mild
Thyroid Gland		Cyst	
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Marked

Note: HYPERPLASIA TGLs = 2-7

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 28	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 611
	<b>DOSE:</b> VEHICLE 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
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	Pituitary Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Thymus
Thyroid Gland	Trachea		

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**MISSING**

Lymph Node - Mandibular

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**INSUFFICIENT TISSUE**

Esophagus

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**OBSERVATIONS**

Brain		Mineralization	Mild
Gallbladder		Inflammation	Chronic, Minimal
Kidney		Inflammation	Chronic, Marked
Liver		Inflammation	Chronic, Minimal
	Hepatocyte	Vacuolization Cytoplasmic	Mild
Note: VACUOLIZ CYTO TGLs = 3-5			
Mammary Gland		Hyperplasia	Cystic, Minimal
Note: THE MAMMARY GLAND IS PRESENT ON SLIDE #21.			
Stomach	Glandular	Erosion	Moderate
Urinary Bladder		Inflammation	Chronic, Minimal
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 2-7			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 29

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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	Pancreas	Parathyroid Gland
Pituitary Gland	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Intestine Large	Cecum	Hyperplasia	Lymphoid, Moderate
Kidney		Lymphoma Malignant Mixed	
Liver		Lymphoma Malignant Mixed	
Lung		Alveolar/Bronchiolar Adenoma	
Note: ALV BRON ADEN	TGLs = 4-4		
Mammary Gland		Hyperplasia	Cystic, Minimal
Ovary		Cyst	
Salivary Glands		Lymphoma Malignant Mixed	
Spleen		Lymphoma Malignant Mixed	
Urinary Bladder		Lymphoma Malignant Mixed	
Uterus		Hydrometra	Moderate
		Hyperplasia	Cystic, Moderate

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 30

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Kidney		Inflammation	Chronic, Mild
Pituitary Gland	Pars Distalis	Angiectasis	Moderate
[ Angiectasis TGLS = 4-1 ]			
Uterus		Exudate	
		Hydrometra	Marked

Note: HYDROMETRA TGLs = 2-7,3-7

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 31

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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	Skin	Stomach - Forestomach
Thymus	Thyroid Gland	Trachea	

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Minimal
Kidney		Inflammation	Chronic, Mild
Liver		Inflammation	Chronic, Mild
Ovary		Cyst	
Note: CYST      TGLs = 4-7			
Pancreas		Inflammation	Chronic, Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
Salivary Glands		Inflammation	Chronic, Mild
Skeletal Muscle		Hemangiosarcoma	
Note: HEMANGIOSARC      TGLs = 3-23			
Spleen		Hematopoietic Cell Proliferation	Mild
Note: HEMA CELL PROL      TGLs = 6-2			
Stomach	Glandular	Mineralization	Mild
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA      TGLs = 5-7			

**PRIMARY CAUSE OF DEATH**      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**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> 655
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Ovary	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Trachea

---

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Inflammation	Chronic, Minimal
		Mineralization	Minimal
Kidney		Inflammation	Chronic, Marked
Liver		Inflammation	Chronic, Mild
Pancreas		Cyst	
		Inflammation	Chronic, Moderate
		Pigmentation	Moderate
Note: CYST	TGLs = 2-22		
Note: THE PIGMENT APPEARS TO BE PHAGOCYTIZED HEMOCIDERIN.			
Thyroid Gland		Inflammation	Chronic, Mild
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Mild

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 33      **TRT#:** 2      **SEX:** Female      **DAY ON TEST:** 731  
**DOSE:** VEHICLE CONTROL      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Trachea	

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Kidney		Cyst	
		Inflammation	Chronic, Mild
Lymph Node	Iliac	Hyperplasia	Lymphoid, Mild
	Renal	Hyperplasia	Lymphoid, Mild
Note: HYPERPLASIA    TGLs = 7-25			
Note: HYPERPLASIA    TGLs = 6-24			
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Skin		Acanthosis	Mild
Note: ACANTHOSIS    TGLs = 2-22			
Thyroid Gland	Follicular Cel	Hyperplasia	Minimal
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Exudate	
		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA    TGLs = 3-7			

PRIMARY CAUSE OF DEATH      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 34      **TRT#:** 2      **SEX:** Female      **DAY ON TEST:** 586  
**DOSE:** VEHICLE CONTROL      **DISP:** Dead      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Esophagus	Heart	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Liver	Lymph Node - Mesenteric	Nose	Ovary
Pancreas	Pituitary Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**MISSING**

Intestine Large - Cecum	Lymph Node - Mandibular	Parathyroid Gland
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**AUTO PRECLUDES DIAG.**

Gallbladder

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell Cortex, Zona Fasciata	Hyperplasia Hyperplasia	Mild Focal, Mild
Note: PARENCHYMAL CELLS. Note: THE FOCAL HYPERPLASIA INVOLVES THE NON-SPINDLE			
Kidney		Inflammation	Chronic, Mild
Lung		Alveolar/Bronchiolar Carcinoma	
Note: [ ALV BRON CARC ] TGLs = 4-4			
Mammary Gland		Hyperplasia	Cystic, Minimal
Thymus	Epithel Cell	Alveolar/Bronchiolar Carcinoma Hyperplasia	Metastatic (Lung) Mild

**PRIMARY CAUSE OF DEATH**

-

Animal Note: SLIDE 3 ADJACENT TO THE THYROID GLAND.

Animal Note: PART OF THE LUNG CARC IS PRESENT ON

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 35	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 610
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea			

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**MISSING**

Thymus

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Minimal
Kidney	Renal Tubule	Atrophy	Mild
	Renal Tubule	Necrosis	Minimal
Note: ATROPHY	TGLs = 4-6		
Liver	Hepatocyte	Vacuolization Cytoplasmic	Minimal
Urinary Bladder		Inflammation	Chronic, Moderate
Uterus		Exudate	
		Hydrometra	Moderate
		Hyperplasia	Cystic, Mild
Note: HYDROMETRA	TGLs = 2-7,3-7		

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 36

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland
Nose	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea			

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Moderate
Kidney		Inflammation	Chronic, Mild
		Metaplasia	Osseous, Moderate
Liver	Hepatocyte	Hepatocellular Carcinoma	
		Vacuolization Cytoplasmic	Mild
	[ Vacuolization Cytoplasmic TGLS = 5-23 ]		
Urinary Bladder		Inflammation	Chronic, Moderate
Uterus		Hydrometra	Moderate
		Hyperplasia	Cystic, Marked
Note: HYDROMETRA	TGLs = 3-7		
Note: HYPERPLASIA	TGLs = 4-7		
Vagina		Leiomyosarcoma	

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 37	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> VEHICLE 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	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lung	Lymph Node - Mandibular	Nose	Ovary
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Skin	Spleen	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Kidney		Inflammation	Chronic, Mild
Liver		Eosinophilic Focus	
		Inflammation	Chronic, Mild
Lymph Node	Mesenteric	Lymphoma Malignant Histiocytic	
Note: LYMPH MAL HIST TGLs = 5-6-1			
Mammary Gland		Hyperplasia	Cystic, Minimal
Stomach	Forestomach, Mucosa	Hyperplasia	Minimal
Uterus		Hydrometra	Moderate
		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 2-7			
Note: HYDROMETRA TGLs = 3-7,4-7			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 38	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	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
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea		

---

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Lung		Alveolar/Bronchiolar Adenoma	
Urinary Bladder		Inflammation	Chronic, Mild
Uterus	Serosa	Cyst	
		Hydrometra	Moderate
		Hyperplasia	Cystic, Marked

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Note: HYPERPLASIA TGLs = 2-7

Note: CYST TGLs = 3-7

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 39

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	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	Ovary
Parathyroid Gland	Pituitary Gland	Salivary Glands	Stomach - Glandular
Thyroid Gland	Trachea	Urinary Bladder	

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Islets, Pancreatic		Inflammation	Chronic, Mild
Kidney		Inflammation	Chronic, Minimal
Liver		Inflammation	Chronic, Mild
Lymph Node	Mesenteric	Lymphoma Malignant Mixed	
Pancreas		Inflammation	Chronic, Mild
Skin		Acanthosis	Mild
Note: ACANTHOSIS TGLs = 1-21			
Spleen		Lymphoma Malignant Mixed	
Stomach	Forestomach, Mucosa	Hyperplasia	Moderate
Thymus		Lymphoma Malignant Mixed	
Uterus		Exudate	
		Hyperplasia	Cystic, Moderate
		Metaplasia	Squamous, Moderate

Note: HYPERPLASIA TGLs = 3-7

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 40	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> VEHICLE 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	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Ovary
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea		

---

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 4-23 ]			
Skin		Acanthosis	Mild
Note: ACANTHOSIS	TGLs = 2-22		
Urinary Bladder		Inflammation	Chronic, Moderate
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA	TGLs = 3-7		

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 41	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> VEHICLE 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	Esophagus	Gallbladder
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	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Moderate
Kidney		Inflammation	Chronic, Mild
Lung		Mineralization	Mild
Ovary		Cyst	
Note: CYST      TGLs = 1-7			
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
Salivary Glands		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA      TGLs = 2-7			

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**PRIMARY CAUSE OF DEATH**      -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 42	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 581
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Dead	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**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
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

---

**MISSING**

Gallbladder

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**OBSERVATIONS**

Bone Marrow	Myelofibrosis	Mild
Brain	Mineralization	Mild
Kidney	Casts Protein	Minimal
Lung	Congestion	Moderate
Mammary Gland	Hyperplasia	Cystic, Minimal
Urinary Bladder	Inflammation	Chronic, Minimal
Uterus	Exudate	
	Hyperplasia	Cystic, Moderate

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Note: HYPERPLASIA TGLs = 3-7

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PRIMARY CAUSE OF DEATH

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**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 43	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> VEHICLE 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	Esophagus
Gallbladder	Heart	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	Mammary Gland	Nose	Ovary
Pancreas	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea			

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**MISSING**

Parathyroid Gland

---

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Mild
Lung		Alveolar/Bronchiolar Adenoma	
		Hemorrhage	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Urinary Bladder		Inflammation	Chronic, Moderate
Uterus		Hydrometra	Moderate
		Hyperplasia	Cystic, Marked

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Note: HYPERPLASIA TGLs = 2-7

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 44

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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	Salivary Glands
Skin	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea		

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Minimal
Kidney		Inflammation	Chronic, Marked
Liver	Hepatocyte	Hepatocellular Adenoma	
		Vacuolization Cytoplasmic	Mild
Note: HEPATOCLR ADEN TGLs = 4-23			
Lung		Inflammation	Chronic, Mild
Ovary		Cyst	
Spleen		Hematopoietic Cell Proliferation	Mild
		Hyperplasia	Lymphoid, Moderate
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Exudate	
		Hydrometra	Marked
		Hyperplasia	Cystic, Marked

Note: HYDROMETRA TGLs = 3-7

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 45	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 609
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Dead	<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 - Colon	Intestine Large - Rectum
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
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

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**MISSING**

Gallbladder	Intestine Large - Cecum
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**AUTO PRECLUDES DIAG.**

Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
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**OBSERVATIONS**

Bone Marrow	Myelofibrosis	Mild
Uterus	Hyperplasia	Cystic, Mild

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 46

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Kidney	Lymph Node - Mandibular	Nose	Pancreas
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Trachea		

**MISSING**

Parathyroid Gland	Thyroid Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Adenoma	
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Liver		Inflammation	Chronic, Minimal
Lung		Alveolar/Bronchiolar Adenoma	
Lymph Node	Mesenteric	Hemorrhage	Moderate
Mammary Gland		Hyperplasia	Cystic, Minimal
Ovary		Cyst	
Note: CYST	TGLs = 3-7		
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
Salivary Glands		Inflammation	Chronic, Mild
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 4-7		

**PRIMARY CAUSE OF DEATH**

-

Animal Note: THE TRACHEA IS ON SLIDE 2 AND THE ESOPHAGUS IS ON SLIDE 4.

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 47	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> VEHICLE 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	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland
Nose	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Islets, Pancreatic		Hyperplasia	Minimal
Kidney		Inflammation	Chronic, Moderate
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC TGLs = 4-23			
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Spleen		Developmental Malformation	
Note: SPLENIC TISSUE OUTSIDE THE SPLENIC CAPSULE.			
Note: THE DEVELOP MALFOR CONSISTS OF A ZONE OF			
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 3-7			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 48

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Lymph Node - Mandibular
Nose	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Thymus

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Lymphoma Malignant Mixed	
		Myelofibrosis	Mild
Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Minimal
Kidney		Casts Protein	Mild
		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD	TGLs = 3-6		
Liver		Hepatocellular Adenoma	
		Lymphoma Malignant Mixed	
[ Hepatocellular Adenoma TGLS = 5-24 ]			
Lung		Alveolar/Bronchiolar Carcinoma	
		Infiltration Cellular	Histiocyte, Marked
		Lymphoma Malignant Mixed	
Note: ALV BRON CARC	TGLs = 8-4,9-4		
Lymph Node	Iliac	Infiltration Cellular	Polymorphnuclr, Marked
	Iliac	Lymphoma Malignant Mixed	
	Mesenteric	Lymphoma Malignant Mixed	
	Renal	Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD	TGLs = 4-23		
Note: LYMPH MAL MIXD	TGLs = 6-25		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 48	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: LYMPH MAL MIXD TGLs = 7-26

Mammary Gland	Hyperplasia	Cystic, Minimal
Spleen	Lymphoma Malignant Mixed	
Uterus	Hyperplasia	Cystic, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 49	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> VEHICLE 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	Esophagus	Gallbladder
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	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	

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**MISSING**

Lymph Node - Mesenteric

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Kidney		Casts Protein	Mild
		Inflammation	Chronic, Mild
Liver		Inflammation	Chronic, Mild
Lung		Inflammation	Chronic, Moderate
		Mineralization	Minimal
Mammary Gland		Carcinoma	
		Hyperplasia	Cystic, Minimal
Note: CARCINOMA	TGLs = 2-22		
Ovary		Cyst	
[ Cyst TGLS = 4-7 ]			
Pancreas		Inflammation	Chronic, Mild
Pituitary Gland	Pars Distalis	Adenoma	
Urinary Bladder		Inflammation	Chronic, Moderate
Uterus		Hyperplasia	Cystic, Mild
Note: HYPERPLASIA	TGLs = 3-7		

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 50

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Jejunum	Islets, Pancreatic	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Intestine Small	Ileum	Hyperplasia	Lymphoid, Moderate
Kidney		Inflammation	Chronic, Minimal
Liver		Hepatocellular Adenoma	
	Hepatocyte	Hepatocellular Carcinoma	
		Vacuolization Cytoplasmic	Moderate
Note: HEPATOCLR ADEN	TGLs = 4-23		
Note: HEPATOCLR CARC	TGLs = 3-22		
Spleen		Hematopoietic Cell Proliferation	Mild
Uterus		Hemangioma	
		Hyperplasia	Cystic, Moderate

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 51

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Lymph Node - Mesenteric
Nose	Ovary	Parathyroid Gland	Pituitary Gland
Salivary Glands	Stomach - Glandular	Thymus	Trachea

**INSUFFICIENT TISSUE**

Islets, Pancreatic                      Pancreas

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Moderate
Bone Marrow		Proliferation	Mild
Intestine Small	Jejunum	Lymphoma Malignant Lymphocytic	
Note: LYMPH MAL LYMP    TGLs = 9-23			
Kidney		Lymphoma Malignant Lymphocytic	
Liver		Lymphoma Malignant Lymphocytic	
Note: LYMPH MAL LYMP    TGLs = 10-5			
Lung		Lymphoma Malignant Lymphocytic	
Lymph Node	Mandibular	Lymphoma Malignant Lymphocytic	
	Mediastinal	Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLs = 11-2 ]			
[ Lymphoma Malignant Lymphocytic TGLs = 3-2 ]			
Mammary Gland		Hyperplasia	Cystic, Minimal
Mesentery		Cyst	
Note: THE CYST MAY BE A DILATED BILE DUCT OR PANCREAT. DUCT.			
Note: CYST                    TGLs = 6-5			
Skin		Acanthosis	Marked
		Hemorrhage	Moderate
		Inflammation	Chronic, Moderate
		Ulcer	Mild
Note: INFLAMMATION    TGLs = 1-21			
Note: ULCER                TGLs = 1-21			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 51	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: ACANTHOSIS	TGLs = 1-21		
Note: HEMORRHAGE	TGLs = 2-22		
Spleen		Hematopoietic Cell Proliferation Lymphoma Malignant Lymphocytic	Mild
[ Hematopoietic Cell Proliferation TGLS = 7-2 ]			
[ Lymphoma Malignant Lymphocytic TGLS = 7-2 ]			
Stomach	Forestomach Forestomach	Lymphoma Malignant Lymphocytic Squamous Cell Papilloma	
Thyroid Gland		Cyst	
Urinary Bladder		Lymphoma Malignant Lymphocytic	
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 5-6-1		

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**PRIMARY CAUSE OF DEATH** -

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Animal Note: PANCREAS IS OBSCURED BY MESENTERIC CYST.

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05002-06

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: gamma-Butyrolactone

CAS Number: 96-48-0

Date Report Requested: 10/20/2014

Time Report Requested: 03:23:08

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 52

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 525 MG/KG

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Intestine Large - Cecum  
Intestine Small - Jejunum  
Parathyroid Gland  
Thyroid Gland

Bone  
Intestine Large - Colon  
Islets, Pancreatic  
Pituitary Gland

Esophagus  
Intestine Large - Rectum  
Nose  
Skin

Heart  
Intestine Small - Duodenum  
Ovary  
Stomach - Forestomach

OBSERVATIONS

Adrenal Gland  
Bone Marrow  
Brain  
Gallbladder  
Note: DILATATION TGLs = 7-5

Medulla  
  
  
  
Ileum

Pheochromocytoma Benign  
Myelofibrosis  
Mineralization  
Dilatation  
  
Lymphoma Malignant Mixed  
Inflammation  
Lymphoma Malignant Mixed  
Infiltration Cellular  
Inflammation  
Inflammation

Mild  
Moderate  
Moderate  
  
Chronic, Mild  
  
Histiocyte, Marked  
Suppurative, Moderate  
Chronic, Marked

Intestine Small  
Kidney  
Liver  
Lung  
  
Note: INFILTRAT CELL TGLs = 10-4  
Note: INFLAMMATION TGLs = 10-4  
Note: INFLAMMATION TGLs = 10-4

Lymph Node  
Iliac  
Iliac  
Mandibular  
Mesenteric  
Renal

Angiectasis  
Lymphoma Malignant Mixed  
Lymphoma Malignant Mixed  
Lymphoma Malignant Mixed  
Lymphoma Malignant Mixed

Marked

Note: LYMPH MAL MIXD TGLs = 8-23  
Note: LYMPH MAL MIXD TGLs = 3-2  
Note: LYMPH MAL MIXD TGLs = 6-6-1  
Note: ANGIECTASIS TGLs = 8-23  
Note: LYMPH MAL MIXD TGLs = 9-24

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 52	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Mammary Gland		Hyperplasia	Cystic, Minimal
Pancreas		Atrophy	Minimal
		Lymphoma Malignant Mixed	
Salivary Glands		Lymphoma Malignant Mixed	
Spleen		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD	TGLs = 5-2		
Stomach	Glandular	Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD	TGLs = 11-5-1		
Thymus		Lymphoma Malignant Mixed	
Trachea		Inflammation	Chronic Active, Mild
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA	TGLs = 4-7		

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 53      **TRT#:** 6      **SEX:** Female      **DAY ON TEST:** 730  
**DOSE:** 525 MG/KG      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea			

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Eye	Cornea	Inflammation	Chronic, Mild
	Cornea	Mineralization	Minimal
Note: MINERALIZATION TGLs = 1-23			
Note: INFLAMMATION TGLs = 1-23			
Harderian Gland		Adenoma	
Note: ADENOMA TGLs = 5-22			
Kidney		Inflammation	Chronic, Mild
Ovary		Cyst	
Note: CYST TGLs = 4-7			
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 3-7			

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 54	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> 525 MG/KG	<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	Esophagus	Gallbladder
Heart	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	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

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**MISSING**

Intestine Large - Cecum	Ovary
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Minimal
Kidney	Renal Tubule	Regeneration	Minimal
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Marked

Note: HYPERPLASIA TGLs = 3-7

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 55                      **TRT#:** 6                      **SEX:** Female                      **DAY ON TEST:** 730  
**DOSE:** 525 MG/KG                      **DISP:** Terminal Sacrifice                      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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 - Mesenteric
Mammary Gland	Parathyroid Gland	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Note: HYPERPLASIA      TGLs = 6-6-1			
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Harderian Gland		Adenoma	
Lymph Node	Mandibular	Hyperplasia	Lymphoid, Mild
Nose		Exudate	
		Fungus	
Ovary		Cyst	
Note: CYST              TGLs = 3-7			
Pancreas		Hyperplasia	Nodular, Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Spleen		Hyperplasia	Lymphoid, Moderate
Note: HYPERPLASIA      TGLs = 5-2			
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA      TGLs = 4-7			
Vagina		Granuloma	Marked

PRIMARY CAUSE OF DEATH      -

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05002-06

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: gamma-Butyrolactone

CAS Number: 96-48-0

Date Report Requested: 10/20/2014

Time Report Requested: 03:23:08

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 56

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 525 MG/KG

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla  
Esophagus  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lung  
Pancreas  
Skin  
Trachea

Bone  
Gallbladder  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mandibular  
Parathyroid Gland  
Stomach - Forestomach

Bone Marrow  
Heart  
Intestine Small - Duodenum  
Kidney  
Lymph Node - Mesenteric  
Pituitary Gland  
Stomach - Glandular

Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Liver  
Nose  
Salivary Glands  
Thymus

OBSERVATIONS

Adrenal Gland  
Mammary Gland  
Ovary  
    Note: CYST      TGLs = 4-7  
Spleen  
  
Thyroid Gland  
    [ Adenoma TGLS = 5-3 ]  
Urinary Bladder  
Uterus  
    Note: HYPERPLASIA      TGLs = 3-7

Cortex, Spindle Cell  
  
  
  
  
Sinusoid  
Follicular Cel

Hyperplasia  
Hyperplasia  
Cyst  
  
Angiectasis  
Hyperplasia  
Adenoma  
  
Inflammation  
Hyperplasia

Mild  
Cystic, Minimal  
  
Mild  
Moderate  
  
Chronic, Mild  
Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: CECUM IS PRESENT ON SLIDE 4.

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 57

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Moderate
Brain		Mineralization	Mild
Kidney		Inflammation	Chronic, Mild
Ovary		Cyst	
Note: CYST TGLs = 3-7			
Salivary Glands		Hyperplasia	Lymphoid, Moderate
		Inflammation	Chronic, Moderate
Uterus		Hyperplasia	Cystic, Mild
Note: HYPERPLASIA TGLs = 4-7			

**PRIMARY CAUSE OF DEATH**

-  
Animal Note: THE TANGENTIAL SECTION OF FORESTOMACH;  
Animal Note: NOT CONSIDERED A LESION.

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 58

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 592

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Thymus

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Liver		Hepatocellular Adenoma	
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
Ovary		Cyst	
Note: CYST	TGLs = 3-7-1		
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA	TGLs = 2-7		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 59

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Skin	Stomach - Glandular
Thyroid Gland	Trachea		

**OBSERVATIONS**

Adrenal Gland	Cortex	Accessory Adrenal Cortical Nodule	
	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Kidney	Renal Tubule	Atrophy	Moderate
		Casts Protein	Minimal
		Lymphoma Malignant Mixed	
Liver		Lymphoma Malignant Mixed	
Lung		Inflammation	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Mild
Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Minimal
Salivary Glands		Inflammation	Chronic, Mild
Spleen		Lymphoma Malignant Mixed	
Stomach	Forestomach, Mucosa	Hyperplasia	Moderate
Thymus		Lymphoma Malignant Mixed	
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Exudate	
		Hyperplasia	Cystic, Moderate

Note: HYPERPLASIA TGLs = 2-7

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 60

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Ovary
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Mild
Kidney		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate

Note: HYPERPLASIA TGLs = 3-7,4-7

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 61

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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	Nose	Parathyroid Gland
Pituitary Gland	Skin	Stomach - Glandular	Thyroid Gland
Trachea			

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Kidney		Inflammation	Chronic, Moderate
	Renal Tubule	Regeneration	Moderate
Liver		Focal Cellular Change	
		Inflammation	Chronic, Mild
Lung		Alveolar/Bronchiolar Carcinoma	
		Infiltration Cellular	Histiocyte, Moderate
Note: ALV BRON CARC TGLs = 4-4			
Lymph Node	Mandibular	Lymphoma Malignant Mixed	
Ovary		Cyst	
Pancreas		Inflammation	Chronic, Minimal
Salivary Glands		Lymphoma Malignant Mixed	
Spleen		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 3-2			
Stomach	Forestomach, Mucosa	Hyperplasia	Moderate
Note: HYPERPLASIA TGLs = 5-5-2			
Thymus		Lymphoma Malignant Mixed	
Urinary Bladder		Inflammation	Chronic, Moderate
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 2-7			

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 62      **TRT#:** 6      **SEX:** Female      **DAY ON TEST:** 731  
**DOSE:** 525 MG/KG      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Kidney	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Nose	Ovary	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Thymus
Thyroid Gland	Trachea		

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Minimal
Liver		Hepatocellular Adenoma	
Mammary Gland		Hyperplasia	Cystic, Minimal
Pancreas		Inflammation	Chronic, Mild
Stomach	Glandular Forestomach	Mineralization Squamous Cell Papilloma	Mild
Note: PAPILOMA SQUA    TGLs = 3-5-1			
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA    TGLs = 2-7			

**PRIMARY CAUSE OF DEATH**      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 63	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 525 MG/KG	<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	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Kidney		Inflammation	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
Note: MAMMARY GLAND IS ADJACENT TO SALIVARY GLAND			
Ovary		Cystadenoma	
Note: CYSTADENOMA TGLs = 3-7			
Salivary Glands		Inflammation	Chronic, Moderate
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Mild
Note: HYPERPLASIA TGLs = 4-7			

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 64

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 643

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Kidney
Lung	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Minimal
Islets, Pancreatic		Hyperplasia	Moderate
Liver		Lymphoma Malignant Mixed	
Lymph Node	Inguinal	Lymphoma Malignant Mixed	
	Mandibular	Lymphoma Malignant Mixed	
	Mesenteric	Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 3-2 Note: LYMPH MAL MIXD TGLs = 3-8 [ Lymphoma Malignant Mixed TGLS = 3-6-1 ]			
Mammary Gland		Hyperplasia	Cystic, Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
Spleen		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 2-2			
Urinary Bladder		Lymphoma Malignant Mixed	
Uterus		Exudate	
		Hyperplasia	Cystic, Moderate

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05002-06

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: gamma-Butyrolactone

CAS Number: 96-48-0

Date Report Requested: 10/20/2014

Time Report Requested: 03:23:08

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 65

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 525 MG/KG

DISP: Terminal Sacrifice

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Medulla  
Gallbladder  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Pancreas  
Stomach - Forestomach

Bone  
Heart  
Intestine Small - Duodenum  
Liver  
Mammary Gland  
Parathyroid Gland  
Stomach - Glandular

Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Nose  
Pituitary Gland  
Thyroid Gland

Esophagus  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Ovary  
Skin  
Trachea

OBSERVATIONS

Adrenal Gland  
Bone Marrow  
Kidney  
  
Salivary Glands  
Spleen  
Thymus  
Urinary Bladder  
Uterus

Cortex, Spindle Cell  
  
Renal Tubule

Hyperplasia  
Myelofibrosis  
Atrophy  
Inflammation  
Inflammation  
Hyperplasia  
Hyperplasia  
Inflammation  
Hyperplasia

Mild  
Minimal  
Minimal  
Chronic, Mild  
Chronic, Mild  
Lymphoid, Mild  
Lymphoid, Mild  
Chronic, Moderate  
Cystic, Moderate

Note: HYPERPLASIA TGLs = 2-7

PRIMARY CAUSE OF DEATH

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**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 66

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 641

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Kidney	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Pancreas	Pituitary Gland	Salivary Glands	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Tongue
Tooth	Trachea	Urinary Bladder	

**MISSING**

Parathyroid Gland

**OBSERVATIONS**

Adrenal Gland	Cortex	Cyst	
	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Islets, Pancreatic		Adenoma	
Liver		Hematopoietic Cell Proliferation	Minimal
Lung		Granulosa-Theca Tumor Malignant	Metastatic (Ovary)
Mammary Gland		Hyperplasia	Cystic, Minimal
Ovary		Granulosa-Theca Tumor Malignant	
Note: GRAN THECA MAL TGLs = 3-7			
Skin	Subcut Tiss	Schwannoma Malignant	
[ Schwannoma Malignant TGLS = 2-22 ]			
Spleen		Hematopoietic Cell Proliferation	Mild
Uterus		Hydrometra	Marked
		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 4-7			
Note: HYDROMETRA TGLs = 4-7			

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 67

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 656

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Esophagus	Gallbladder
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	Parathyroid Gland	Pituitary Gland	Salivary Glands
Skin	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell Medulla	Hyperplasia Hyperplasia Mineralization	Mild Minimal Mild
Brain		Inflammation	Chronic, Minimal
Kidney	Renal Tubule	Regeneration	Minimal
Mammary Gland		Hyperplasia	Cystic, Minimal
Ovary		Cyst	
Note: CYST	TGLs = 1-7		
Pancreas		Atrophy Inflammation	Minimal Chronic, Minimal
Urinary Bladder		Inflammation	Chronic, Minimal
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 2-7		

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 68

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Liver	Lung
Nose	Ovary	Parathyroid Gland	Trachea

**MISSING**

Gallbladder

**INSUFFICIENT TISSUE**

Islets, Pancreatic                      Pituitary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Lymphoma Malignant Mixed	
		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Kidney		Lymphoma Malignant Mixed	
Lymph Node	Mandibular	Lymphoma Malignant Mixed	
	Mediastinal	Lymphoma Malignant Mixed	
	Mesenteric	Lymphoma Malignant Mixed	
	Renal	Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD	TGLs = 9-2		
Note: LYMPH MAL MIXD	TGLs = 6-6-1		
Note: LYMPH MAL MIXD	TGLs = 7-2		
Note: LYMPH MAL MIXD	TGLs = 8-24		
Mammary Gland		Hyperplasia	Cystic, Mild
Note: THE LESION IS ON SLIDE 22-1.			
Pancreas		Lymphoma Malignant Mixed	
Salivary Glands		Lymphoma Malignant Mixed	
Skin		Fibrosis	Moderate
	Sebaceous GI	Hyperplasia	Marked
Note: [ HYPERPLASIA ]	TGLs = 3-22		
Note: FIBROSIS	TGLs = 1-21-1		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 68	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen		Lymphoma Malignant Mixed	
Stomach	Forestomach, Mucosa	Dysplasia	Moderate
	Forestomach, Mucosa	Hyperplasia	Moderate
	Glandular	Mineralization	Mild
Note: HYPERPLASIA	TGLs = 10-5-1		
Note: DYSPLASIA	TGLs = 10-5-1		
Thymus		Lymphoma Malignant Mixed	
Thyroid Gland		Lymphoma Malignant Mixed	
Urinary Bladder		Lymphoma Malignant Mixed	
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA	TGLs = 5-7		

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 69

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea		

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Minimal
Kidney		Inflammation	Chronic, Mild
Liver		Inflammation	Chronic, Mild
Lung		Inflammation	Chronic, Mild
Ovary	Mediastinum	Necrosis	Moderate
Note: CYST		Cyst	
TGLs = 3-7			
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
Urinary Bladder		Inflammation	Chronic, Moderate
Uterus		Hyperplasia	Cystic, Moderate
		Metaplasia	Squamous, Mild

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 70	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 525 MG/KG	<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	Esophagus	Gallbladder
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	Mammary Gland	Nose
Ovary	Pancreas	Skin	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland	Trachea	

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**MISSING**

Pituitary Gland	Urinary Bladder
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**INSUFFICIENT TISSUE**

Lymph Node - Mesenteric	Thymus
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Kidney		Inflammation	Chronic, Marked
Lung		Inflammation	Chronic, Mild
Parathyroid Gland		Cyst	
Salivary Glands		Inflammation	Chronic, Moderate
Spleen		Hyperplasia	Lymphoid, Moderate
Uterus		Hyperplasia	Cystic, Moderate

Note: HYPERPLASIA TGLs = 3-7

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 71	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Esophagus	Gallbladder	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Liver	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Ovary
Pancreas	Parathyroid Gland	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea
Urinary Bladder			

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**INSUFFICIENT TISSUE**

Adrenal Gland - Medulla	Thymus
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Inflammation	Chronic, Mild
Lung		Alveolar/Bronchiolar Adenoma	
Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA	TGLs = 3-1		
Salivary Glands		Inflammation	Chronic, Minimal
Uterus		Hyperplasia	Cystic, Moderate

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 72	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 525 MG/KG	<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	Esophagus
Gallbladder	Heart	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	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

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**OBSERVATIONS**

Adrenal Gland	Cortex	Developmental Malformation	
	Cortex, Spindle Cell	Hyperplasia	Moderate
Note: THE DEVELOPMENTAL MALFORMATION WAS A CLUSTER OF			
Bone Marrow		Myelofibrosis	Mild
Islets, Pancreatic		Adenoma	
Kidney		Inflammation	Chronic, Minimal
Mammary Gland		Hyperplasia	Lobular, Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-1 ]			
Uterus		Hyperplasia	Cystic, Mild
Note: HYPERPLASIA TGLs = 3-7			

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 73	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Lung	Lymph Node - Mandibular
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

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**INSUFFICIENT TISSUE**

Lymph Node - Mesenteric

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**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Liver		Inflammation	Chronic, Minimal
	Lobules	Necrosis	Minimal
Ovary		Cystadenoma	
Salivary Glands		Inflammation	Chronic, Mild
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate

Note: HYPERPLASIA TGLs = 3-7

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 74

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Esophagus
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Islets, Pancreatic	Lung
Nose	Pancreas	Parathyroid Gland	Spleen
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea

**MISSING**

Lymph Node - Mandibular	Lymph Node - Mesenteric	Thymus
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Moderate
Gallbladder		Inflammation	Chronic, Mild
Intestine Small	Jejunum	Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 5-23			
Kidney		Inflammation	Chronic, Minimal
Liver	Hepatocyte	Vacuolization Cytoplasmic	Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
Ovary		Cyst	
Note: CYST TGLs = 3-7			
Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 6-1			
Salivary Glands		Inflammation	Chronic, Mild
Skin		Acanthosis	Minimal
Note: ACANTHOSIS TGLs = 2-22			
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 4-7			

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 75	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 525 MG/KG	<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	Ear
Esophagus	Gallbladder	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Liver	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Ovary	Parathyroid Gland
Salivary Glands	Spleen	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

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**MISSING**

Pituitary Gland

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Islets, Pancreatic		Hyperplasia	Mild
Kidney	Renal Tubule	Inflammation	Chronic, Mild
		Regeneration	Minimal
Lung		Alveolar/Bronchiolar Adenoma	
		Hemorrhage	Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 4-4 ]		
Pancreas		Inflammation	Chronic, Mild
Skin	Subcut Tiss	Fibroma	
	Note: THE FIBROMA IS PRESENT ON SLIDE 21.		
Uterus		Hyperplasia	Cystic, Moderate
	Note: HYPERPLASIA TGLs = 3-7		

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 76

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 708

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lung
Lymph Node - Mandibular	Nose	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach - Glandular	Thymus
Thyroid Gland	Trachea		

**MISSING**

Pituitary Gland

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Gallbladder		Leiomyosarcoma	Metastatic (Mesentery)
Intestine Small	Duodenum	Leiomyosarcoma	Metastatic (Mesentery)
Kidney		Leiomyosarcoma	Metastatic (Mesentery)
Note: LEIOMYOSAR	TGLs = 1-21,2-21		
Liver	Kupffer Cell	Hyperplasia	Moderate
	Lobules	Necrosis	Minimal
[ Necrosis TGLS = 6-5 ]			
Lymph Node	Mesenteric	Hemorrhage	Mild
	Bronchial	Leiomyosarcoma	Metastatic (Mesentery)
Mammary Gland		Hyperplasia	Cystic, Minimal
Mesentery		Leiomyosarcoma	
Note: LEIOMYOSAR	TGLs = 4-23		
Ovary		Cyst	
		Hemorrhage	Moderate
		Leiomyosarcoma	Metastatic (Mesentery)
Note: LEIOMYOSAR	TGLs = 3-22		
Pancreas		Atrophy	Marked
		Leiomyosarcoma	Metastatic (Mesentery)
Stomach	Forestomach	Diverticulum	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 76	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 708
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: DIVERTICULUM TGLs = 7-5-2	Forestomach	Leiomyosarcoma	Metastatic (Mesentery)
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Marked

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**PRIMARY CAUSE OF DEATH** -

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**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 77

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 592

**DOSE:** 525 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Bone	Esophagus	Gallbladder
Heart	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
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Uterus	

**OBSERVATIONS**

Adrenal Gland Note: PHEOCHROM MAL TGLs = 1-6-1	Medulla	Pheochromocytoma Malignant	
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Lung		Congestion	Moderate
		Inflammation	Chronic, Moderate
Urinary Bladder		Inflammation	Chronic, Mild

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 78

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	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
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Tongue	Trachea	Urinary Bladder	

**OBSERVATIONS**

Adrenal Gland Note: HYPERPLASIA TGLs = 4-6-1	Cortex, Spindle Cell	Hyperplasia	Moderate
Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Lung Note: HEMORRHAGE TGLs = 5-4-1		Hemorrhage	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Uterus Note: HYPERPLASIA TGLs = 3-7		Hyperplasia	Cystic, Moderate

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 79      **TRT#:** 6      **SEX:** Female      **DAY ON TEST:** 731  
**DOSE:** 525 MG/KG      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	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
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

**MISSING**

Ovary

**INSUFFICIENT TISSUE**

Lymph Node - Mesenteric

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Kidney		Cyst	
		Inflammation	Chronic, Mild
Stomach	Forestomach, Mucosa	Hyperplasia	Mild
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate

[ Hyperplasia TGLS = 3-7,4-7 ]

**PRIMARY CAUSE OF DEATH**

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Animal Note: THE MAMMARY GLAND IS PRESENT ON SLIDE 21.

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 80	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lymph Node - Mesenteric	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	Trachea

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**MISSING**

Lymph Node - Mandibular

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Kidney		Metaplasia	Osseous, Mild
Liver	Kupffer Cell	Hyperplasia	Moderate
		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 3-22,4-23,5-24			
Lung		Mineralization	Mild
Mammary Gland		Hyperplasia	Cystic, Mild
Nose		Exudate	
Spleen		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 1-21			
Thymus		Cyst	
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 2-7			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

---

<b>ANIMAL ID:</b> 81	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Liver	Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach - Glandular
Thymus	Trachea		

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**OBSERVATIONS**

Adrenal Gland	Cortex Cortex, Spindle Cell	Accessory Adrenal Cortical Nodule Hyperplasia	Moderate
Bone Marrow		Myelofibrosis	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Inflammation	Chronic, Minimal
Lung		Inflammation	Chronic, Mild
Ovary		Cyst	
Stomach	Forestomach, Mucosa	Hyperplasia	Minimal
Thyroid Gland	Follicular Cel	Hyperplasia	Minimal
Urinary Bladder		Inflammation	Chronic, Moderate
Note: OF LYMPHOCYTES WITHIN THE SUBMUCOSA.			
Note: THE CHRONIC INFLAMMATION CONSISTS OF FOCAL ACCUMULATIONS			
Uterus		Hyperplasia	Cystic, Moderate

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 82	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Jejunum	Islets, Pancreatic	Kidney	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Moderate
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Minimal
Intestine Small	Ileum	Hyperplasia	Lymphoid, Mild
	Duodenum	Polyp	
Note: THE ILEAL LESION IS ON SLIDE 5-2. [ Polyp TGLS = 2-21 ]			
Liver		Inflammation	Chronic, Minimal
Urinary Bladder		Inflammation	Chronic, Minimal
Uterus		Hyperplasia	Cystic, Marked

Note: HYPERPLASIA TGLs = 1-7

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 83      **TRT#:** 6      **SEX:** Female      **DAY ON TEST:** 471  
**DOSE:** 525 MG/KG      **DISP:** Moribund      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Brain
Esophagus	Gallbladder	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Kidney	Lung
Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea			

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Liver	Kupffer Cell	Hematopoietic Cell Proliferation	Mild
	[ Hematopoietic Cell Proliferation TGLS = 8-5 ]	Hyperplasia	Marked
	[ Hyperplasia TGLS = 8-5 ]		
Lymph Node	Iliac	Hyperplasia	Plasma Cell, Mild
	Renal	Hyperplasia	Plasma Cell, Moderate
Note: HYPERPLASIA    TGLs = 10-24			
Note: HYPERPLASIA    TGLs = 9-23			
Mammary Gland		Hyperplasia	Cystic, Minimal
Mesentery		Inflammation	Suppurative, Marked
Note: INFLAMMATION    TGLs = 4-21,6-22			
Ovary		Inflammation	Suppurative, Marked
Note: INFLAMMATION    TGLs = 3-7-1			
Spleen		Hematopoietic Cell Proliferation	Marked
	[ Hematopoietic Cell Proliferation TGLS = 5-2 ]		
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Inflammation	Suppurative, Marked
Note: INFLAMMATION    TGLs = 2-7			

**PRIMARY CAUSE OF DEATH**      -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 84	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 525 MG/KG	<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	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Jejunum	Islets, Pancreatic
Liver	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Intestine Small	Ileum	Hyperplasia	Lymphoid, Moderate
Note: THE LYMPHOID HYPERPLASIA IS ON SLIDE 5-3.			
Kidney	Renal Tubule	Atrophy	Moderate
		Inflammation	Chronic, Mild
Stomach	Glandular	Cyst	
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 1-7			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 85

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Ear	Esophagus
Gallbladder	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	Stomach - Glandular	Thymus	Thyroid Gland
Trachea			

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Moderate
Bone Marrow		Myelofibrosis	Mild
		Proliferation	Moderate
Brain		Mineralization	Minimal
Clitoral Gland		Ectasia	Moderate
		Inflammation	Chronic, Mild
Note: ECTASIA TGLs = 3-7-1 [ Ectasia TGLS = 3-7-1 ]			
Kidney		Inflammation	Chronic, Mild
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC TGLs = 5-23			
Mammary Gland		Carcinoma	
		Hyperplasia	Lobular, Mild
		Hyperplasia	Cystic, Mild
Note: CARCINOMA TGLs = 2-22			
Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA TGLs = 6-1			
Skin		Cyst Epithelial Inclusion	
Note: THE EPITHELIAL INCLUSION CYST IS ON SLIDE 21.			
Spleen		Hematopoietic Cell Proliferation	Mild
		Hyperplasia	Lymphoid, Moderate
Note: HEMA CELL PROL TGLs = 7-2			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 85	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hematopoietic Cell Proliferation TGLS = 7-2 ]

Stomach	Forestomach	Diverticulum	Mild
	Forestomach, Mucosa	Hyperplasia	Minimal
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Mild

Note: HYPERPLASIA TGLs = 4-7

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 86

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Liver	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Kidney	Renal Tubule	Atrophy	Moderate
Note: THE CORTEX.			
Ovary		Cystadenoma	
Note: CYSTADENOMA TGLs = 3-7			
Pituitary Gland	Pars Distalis	Adenoma	
Spleen		Hematopoietic Cell Proliferation	Mild
Urinary Bladder		Inflammation	Chronic, Minimal
Note: LYMPHOCYTES WITHIN THE SUBMUCOSA.			
Uterus		Hyperplasia	Cystic, Mild
Note: HYPERPLASIA TGLs = 4-7			

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 87

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 656

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Parathyroid Gland	Pituitary Gland
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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Lymphoma Malignant Mixed	
		Myelofibrosis	Mild
Brain		Mineralization	Mild
Kidney		Inflammation	Chronic, Minimal
	Renal Tubule	Regeneration	Minimal
Liver		Lymphoma Malignant Mixed	
Lymph Node	Mediastinal	Lymphoma Malignant Mixed	
	Pancreatic	Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD	TGLs = 4-5-2		
Ovary		Cyst	
[ Cyst TGLS = 2-7 ]			
Pancreas		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD	TGLs = 4-5-2		
Spleen		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD	TGLs = 5-2		
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 3-7		

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 88

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
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	

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Blood		Anemia	Moderate
		Leukocytosis	Moderate
Note: ANEMIA TGLs = 1-61			
Note: LEUKOCYTOSIS TGLs = 1-61			
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Moderate
Intestine Small	Ileum	Carcinoma	
Note: CARCINOMA TGLs = 5-23			
Kidney		Inflammation	Chronic, Minimal
Mammary Gland		Hyperplasia	Cystic, Minimal
Pituitary Gland	Pars Distalis	Cyst	
Spleen		Hematopoietic Cell Proliferation	Moderate
Note: HEMA CELL PROL TGLs = 4-2			
Uterus		Hyperplasia	Cystic, Marked

**PRIMARY CAUSE OF DEATH** -

Animal Note: AND GLANDULAR STOMACH; NO LESION.

Animal Note: TANGENTIAL SECTION AT THE JUNCTION OF FORESTOMACH

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 89

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 693

**DOSE:** 525 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	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	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Thymus

**AUTO PRECLUDES DIAG.**

Gallbladder

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Harderian Gland		Adenoma	
Note: THE ADENOMA IS PRESENT ON SLIDE 12.			
Heart	Myocardium	Mineralization	Mild
Liver	Lobules	Necrosis	Mild
Lymph Node	Mesenteric	Hemorrhage	Mild
Mesentery		Hemangiosarcoma	
Note: THE HEMANGIOSARCOMA IS PRESENT ON SLIDE 5.			
Ovary		Cyst	
Note: CYST TGLs = 3-7			
Skin	Subcut Tiss	Edema	Moderate
[ Edema TGLS = 1-8-1 ]			
Spleen		Hematopoietic Cell Proliferation	Mild
Stomach	Glandular	Erosion	Moderate
	Forestomach	Squamous Cell Papilloma	
Uterus		Hemangiosarcoma	
		Hydrometra	Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 89

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 693

**DOSE:** 525 MG/KG

**DISP:** Dead

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Hyperplasia

Cystic, Moderate

Note: HYDROMETRA TGLs = 4-7,5-7

Note: HEMANGIOSARC TGLs = 6-21

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 90      **TRT#:** 6      **SEX:** Female      **DAY ON TEST:** 732  
**DOSE:** 525 MG/KG      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Liver	Lymph Node - Mesenteric
Mammary Gland	Nose	Pancreas	Salivary Glands
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea			

**MISSING**

Lymph Node - Mandibular	Parathyroid Gland
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**INSUFFICIENT TISSUE**

Ovary

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Lung		Inflammation	Chronic, Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Mild
Skin		Acanthosis	Mild
Note: ACANTHOSIS	TGLs = 2-22		
Thymus		Hyperplasia	Lymphoid, Moderate
Urinary Bladder		Inflammation	Chronic, Marked
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 3-7		

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05002-06  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: gamma-Butyrolactone  
CAS Number: 96-48-0

Date Report Requested: 10/20/2014  
Time Report Requested: 03:23:08  
First Dose M/F: NA / NA  
Lab: SRI

ANIMAL ID: 91                      TRT#: 6                      SEX: Female                      DAY ON TEST: 511  
DOSE: 525 MG/KG                      DISP: Dead                      HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Esophagus	Liver	Mammary Gland	Nose
Ovary	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland
Trachea			

MISSING

Lymph Node - Mandibular	Pituitary Gland	Thymus	
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AUTO PRECLUDES DIAG.

Gallbladder	Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum
Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic
Lymph Node - Mesenteric	Pancreas		

OBSERVATIONS

Bone Marrow		Myelofibrosis	Moderate
Heart	Myocardium	Mineralization	Mild
Kidney		Glomerulosclerosis	Moderate
		Inflammation	Chronic, Mild
		Mineralization	Minimal
Lung		Congestion	Moderate
Note: CONGESTION      TGLs = 1-4			
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 92

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 711

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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	Mammary Gland	Nose
Ovary	Parathyroid Gland	Salivary Glands	Skin
Stomach - Forestomach	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Lymph Node - Mesenteric

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Minimal
Esophagus			
Note: THE ESOPHAGUS IS PRESENT ON SLIDE 4.			
Kidney	Renal Tubule	Atrophy	Minimal
		Mineralization	Moderate
	Renal Tubule	Necrosis	Minimal
Liver		Mineralization	Mild
	Hepatocyte	Vacuolization Cytoplasmic	Mild
Note: VACUOLIZ CYTO TGLs = 5-5			
Mesentery	Fat	Necrosis	Mild
Note: NECROSIS TGLs = 6-22			
Pancreas		Inflammation	Chronic, Mild
Pituitary Gland	Pars Distalis	Angiectasis	Mild
Note: ANGIECTASIS TGLs = 7-1			
Spleen	Lymph Follic	Depletion Cellular	Mild
Note: DEPLETION TGLs = 4-2			
Stomach	Glandular	Erosion	Moderate
[ Erosion TGLS = 8-5-2 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 92

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 711

**DOSE:** 525 MG/KG

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Uterus

Exudate

Hyperplasia

Cystic, Mild

Note: HYPERPLASIA TGLs = 2-7

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 93	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 525 MG/KG	<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	Esophagus	Gallbladder
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
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

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**INSUFFICIENT TISSUE**

Pituitary Gland

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Moderate
Pancreas		Atrophy	Marked
		Cyst	
Note: CYST TGLs = 3-5 [ Cyst TGLS = 4-5 ]			
Stomach	Forestomach	Diverticulum	Mild
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 2-7			

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**PRIMARY CAUSE OF DEATH**

-

Animal Note: THE CECUM IS PRESENT ON SLIDE 6-1.

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 94

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	Heart	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	Nose
Ovary	Pancreas	Parathyroid Gland	Skin
Spleen	Stomach - Glandular	Thymus	Thyroid Gland
Trachea			

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Moderate
Bone Marrow		Myelofibrosis	Moderate
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Inflammation	Chronic, Moderate
		Metaplasia	Osseous, Moderate
Liver		Inflammation	Chronic, Minimal
Lung		Hemorrhage	Mild
Note: HEMORRHAGE	TGLs = 5-4		
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
Salivary Glands		Inflammation	Chronic, Mild
Stomach	Forestomach	Squamous Cell Papilloma	
Note: PAPILOMA SQUA	TGLs = 6-5-2		
Urinary Bladder		Inflammation	Chronic, Minimal
Uterus		Hydrometra	Moderate
		Hyperplasia	Cystic, Moderate
Note: HYDROMETRA	TGLs = 2-7,3-7		

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 95	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 655
	<b>DOSE:</b> 525 MG/KG	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
Heart	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	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Inflammation	Chronic, Minimal
Ovary		Cystadenoma	
Note: CYSTADENOMA	TGLs = 1-7		
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 96

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Esophagus	Gallbladder
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	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Thymus	Thyroid Gland
Trachea			

**MISSING**

Ovary

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Minimal
Kidney		Casts Protein	Minimal
		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Minimal
Liver		Hepatocellular Adenoma	
		Inflammation	Chronic, Mild
Note: [ HEPATOCLR ADEN ] TGLs = 4-23			
Spleen		Hyperplasia	Lymphoid, Mild
Stomach	Forestomach, Mucosa	Hyperplasia	Mild
	Glandular	Mineralization	Mild
Note: HYPERPLASIA TGLs = 5-24			
Urinary Bladder		Inflammation	Chronic, Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 3-7			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 97

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Bone Marrow	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Kidney	Lymph Node - Mesenteric	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Lymph Node - Mandibular

**OBSERVATIONS**

Adrenal Gland	Cortex	Developmental Malformation	
	Cortex, Spindle Cell	Hyperplasia	Mild
Brain		Mineralization	Minimal
Eye		Cataract	Mild
		Exudate	
	Cornea	Hyperplasia	Moderate
	Cornea	Inflammation	Chronic, Marked
Note: CATARACT	TGLs = 1-44		
Note: HYPERPLASIA	TGLs = 2-44		
Note: EXUDATE	TGLs = 1-44		
Harderian Gland		Carcinoma	
Note: THE CARCINOMA IS ALSO PRESENT ON SLIDE 12.			
Note: CARCINOMA	TGLs = 3-21		
Liver		Basophilic Focus	
Lung		Carcinoma	Metastatic (Harderian Gland)
Note: CARCINOMA	TGLs = 4-4,5-4		
Mammary Gland		Hyperplasia	Cystic, Minimal
Nose		Exudate	
Ovary		Cyst	
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 97

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen

Hematopoietic Cell Proliferation

Mild

Uterus

Hyperplasia

Cystic, Moderate

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 98

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Islets, Pancreatic
Kidney	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		

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Moderate
Bone Marrow		Myelofibrosis	Mild
Intestine Small	Jejunum	Hyperplasia	Lymphoid, Moderate
Note: HYPERPLASIA TGLs = 2-21			
Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 3-4-1 ]			
Mammary Gland		Hyperplasia	Cystic, Minimal
Uterus		Hyperplasia	Cystic, Moderate
		Metaplasia	Squamous, Moderate
Note: HYPERPLASIA TGLs = 1-7			

**PRIMARY CAUSE OF DEATH** -

Animal Note: THE TRACHEA IS PRESENT ON SLIDE 2.

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 99	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 525 MG/KG	<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	Esophagus	Gallbladder
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	Skin
Spleen	Thymus	Trachea	

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**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Salivary Glands		Inflammation	Chronic, Mild
Stomach	Forestomach	Diverticulum	Moderate
	Glandular	Dysplasia	Moderate
	Glandular	Inflammation	Chronic Active, Mild
Note: DIVERTICULUM TGLs = 4-5-2			
Thyroid Gland		Inflammation	Chronic, Mild
Urinary Bladder		Inflammation	Chronic, Minimal
Uterus		Hydrometra	Marked
		Hyperplasia	Cystic, Mild
		Polyp Stromal	

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Note: HYDROMETRA TGLs = 2-7,3-7

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 100

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 525 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Medulla	Bone	Brain	Esophagus
Gallbladder	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	Mammary Gland
Nose	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Lymph Node - Mesenteric

**OBSERVATIONS**

Adrenal Gland	Cortex, Spindle Cell	Hyperplasia	Mild
Bone Marrow		Myelofibrosis	Minimal
Intest Large			
Note: THE CECUM IS PRESENT ON SLIDE 5-1.			
Kidney	Renal Tubule	Regeneration	Minimal
Lung	Mediastinum	Necrosis	Mild
Uterus		Hydrometra	Moderate
		Hyperplasia	Cystic, Marked

Note: HYPERPLASIA TGLs = 3-7

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 101	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Mammary Gland	Pancreas	Pituitary Gland	Skin
Stomach - Glandular			

---

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Minimal
Kidney		Casts Protein	Minimal
		Inflammation	Chronic, Mild
Liver		Inflammation	Chronic, Mild
Lung		Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Chronic, Moderate
Ovary		Cyst	
		Hemorrhage	Mild
Stomach	Forestomach, Mucosa	Hyperplasia	Mild
	Forestomach	Inflammation	Chronic, Mild
Thyroid Gland		Inflammation	Chronic, Minimal
Uterus		Deciduoma Benign	
		Hyperplasia	Cystic, Moderate

Note: HYPERPLASIA TGLs = 2-9

Note: [ DECIDUOMA BGN ] TGLs = 2-9

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 102

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Mammary Gland
Ovary	Pancreas	Skin	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland		

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Minimal
Kidney		Casts Protein	Minimal
Liver		Hepatocellular Carcinoma	
Note: HEPATOCLR CARC	TGLs = 3-22		
Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Histiocyte, Moderate
		Inflammation	Chronic, Mild
Note: ALV BRON ADEN	TGLs = 4-4		
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Uterus		Exudate	
		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA	TGLs = 2-9		

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 103

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 633

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Islets, Pancreatic	Pituitary Gland
Skin	Thyroid Gland		

**MISSING**

Mammary Gland

**INSUFFICIENT TISSUE**

Harderian Gland

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Minimal
Kidney		Lymphoma Malignant Mixed	
Liver		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 8-23			
Lung		Lymphoma Malignant Mixed	
Lymph Node	Iliac	Lymphoma Malignant Mixed	
	Mandibular	Lymphoma Malignant Mixed	
	Mediastinal	Lymphoma Malignant Mixed	
	Mesenteric	Lymphoma Malignant Mixed	
	Renal	Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 9-6-1			
Note: LYMPH MAL MIXD TGLs = 10-24			
Note: LYMPH MAL MIXD TGLs = 11-25			
[ Lymphoma Malignant Mixed TGLs = 9-2 ]			
[ Lymphoma Malignant Mixed TGLs = 9-2 ]			
Mesentery		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 6-22			
Ovary		Lymphoma Malignant Mixed	
Pancreas		Lymphoma Malignant Mixed	
Spleen		Hematopoietic Cell Proliferation	Moderate
		Lymphoma Malignant Mixed	
Note: HEMA CELL PROL TGLs = 5-2			
Note: LYMPH MAL MIXD TGLs = 5-2			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 103

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 633

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Stomach  
Uterus

Glandular

Lymphoma Malignant Mixed  
Hyperplasia  
Lymphoma Malignant Mixed

Cystic, Moderate

Note: HYPERPLASIA TGLs = 4-7

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 104	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 551
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Dead	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Liver
Mammary Gland	Pancreas	Pituitary Gland	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland		

---

**OBSERVATIONS**

Bone Marrow		Necrosis	Mild
		Proliferation	Mild
Brain		Mineralization	Mild
Kidney	Renal Tubule	Atrophy	Mild
	Renal Tubule	Dilatation	Mild
	Renal Tubule	Inflammation	Chronic, Mild
		Regeneration	Moderate
Lung		Carcinoma	Metastatic (Uterus)
Ovary		Cyst	
Note: CYST	TGLs = 1-7		
Urinary Bladder		Carcinoma	Metastatic (Uterus)
Note: CARCINOMA	TGLs = 2-6-1		
Uterus		Carcinoma	
Note: CARCINOMA	TGLs = 3-7		

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 105	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 624
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Bone Marrow	Brain	Harderian Gland
Lymph Node - Mesenteric	Mammary Gland	Ovary	Pancreas
Pituitary Gland	Skin	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland			

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**MISSING**

Lymph Node - Mandibular

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**OBSERVATIONS**

Islets, Pancreatic		Hyperplasia	Mild
Kidney		Casts Protein	Minimal
Liver		Hepatocellular Carcinoma	
	Kupffer Cell	Hyperplasia	Mild
Note: HEPATOCLR CARC	TGLs = 4-22		
Lung		Alveolar/Bronchiolar Carcinoma	
Note: ALV BRON CARC	TGLs = 5-4,6-4,7-4		
Lymph Node	Mediastinal	Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
Note: ALV BRON CARC	TGLs = 8-23		
Skeletal Muscle		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
Note: ALV BRON CARC	TGLs = 9-24		

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 106	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Liver	Lung	Mammary Gland	Ovary
Pancreas	Skin	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland			

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**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Minimal
Intestine Small	Ileum	Hyperplasia	Lymphoid, Mild
Note: HYPERPLASIA TGLs = 3-23			
Kidney		Glomerulosclerosis	Mild
		Inflammation	Chronic, Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 107	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 527
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Dead	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Bone Marrow	Brain	Harderian Gland
Islets, Pancreatic	Mammary Gland	Pancreas	Pituitary Gland
Skin	Stomach - Forestomach	Stomach - Glandular	

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**OBSERVATIONS**

Kidney		Casts Protein	Minimal
Liver	Kupffer Cell	Hyperplasia	Moderate
Lung		Inflammation	Suppurative, Moderate
Ovary		Inflammation	Suppurative, Marked
Note: INFLAMMATION	TGLs = 2-7		
Thyroid Gland		Cyst	

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05002-06  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: gamma-Butyrolactone  
CAS Number: 96-48-0

Date Report Requested: 10/20/2014  
Time Report Requested: 03:23:08  
First Dose M/F: NA / NA  
Lab: SRI

---

ANIMAL ID: 108	TRT#: 4	SEX: Female	DAY ON TEST: 730
	DOSE: 262 MG/KG	DISP: Terminal Sacrifice	HISTO:

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ORGAN AND ACCOUNTABLE SITE STATUS

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**NORMAL**

Bone	Kidney	Liver	Lung
Mammary Gland	Pancreas	Skin	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland		

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**MISSING**

Harderian Gland

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**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Islets, Pancreatic		Carcinoma	
Note: [ CARCINOMA ] TGLs = 3-22			
Ovary		Cyst	
		Hemorrhage	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
Uterus		Exudate	
		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 2-9			

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 109

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Kidney
Mammary Gland	Pancreas	Pituitary Gland	Skin
Stomach - Forestomach	Stomach - Glandular		

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Liver		Inflammation	Chronic, Mild
Lung		Inflammation	Chronic, Mild
		Thrombosis	
Ovary		Cyst	
Note: CYST	TGLs = 3-9		
Spleen		Hyperplasia	Lymphoid, Marked
Note: [ HYPERPLASIA ]	TGLs = 5-2		
Thyroid Gland	Follicular Cel	Hyperplasia	Mild
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA	TGLs = 4-9		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 110	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Lung
Ovary	Pancreas	Pituitary Gland	Skin
Stomach - Forestomach	Thyroid Gland		

---

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Kidney		Inflammation	Chronic, Minimal
Liver		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 4-23,5-24 ]			
Mammary Gland		Hyperplasia	Cystic, Minimal
Stomach	Glandular	Lymphoma Malignant Mixed	
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 3-9			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

---

<b>ANIMAL ID:</b> 111	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Kidney	Lung	Mammary Gland	Pancreas
Skin	Stomach - Forestomach	Stomach - Glandular	

---

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Marked
Liver	Hepatocyte	Vacuolization Cytoplasmic	Mild
Note: THE VACUOLIZ CYTO HAS A DIFFUSE DISTRIBUTION PATTERN			
Ovary		Cyst	
Note: CYST TGLs = 2-9			
Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Mild
Thyroid Gland		Cyst	
	Follicular Cel	Hyperplasia	Mild
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 3-9			

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05002-06  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: gamma-Butyrolactone  
CAS Number: 96-48-0

Date Report Requested: 10/20/2014  
Time Report Requested: 03:23:08  
First Dose M/F: NA / NA  
Lab: SRI

---

ANIMAL ID: 112	TRT#: 4	SEX: Female	DAY ON TEST: 731
	DOSE: 262 MG/KG	DISP: Terminal Sacrifice	HISTO:

---

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Harderian Gland	Islets, Pancreatic	Lung
Mammary Gland	Ovary	Pituitary Gland	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	

---

OBSERVATIONS

Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Moderate
Kidney		Casts Protein	Minimal
		Inflammation	Chronic, Minimal
Liver		Lymphoma Malignant Mixed	
Note: THE LYMPHOMA INVOVLVMENT IS MINIMAL			
Pancreas		Lymphoma Malignant Mixed	
Spleen		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 4-2			
Uterus		Exudate	
		Hyperplasia	Cystic, Marked

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[ Hyperplasia TGLS = 2-9 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 113

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Harderian Gland	Lung	Mammary Gland
Pancreas	Skin	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland			

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
		Proliferation	Mild
Brain		Mineralization	Minimal
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Casts Protein	Minimal
	Renal Tubule	Regeneration	Mild
Liver		Cyst	
Note: THE CYST IS LINED BY BILE DUCT EPITHELIUM			
Note: CYST TGLs = 4-23			
Ovary		Hemorrhage	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
Uterus		Exudate	
		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 3-9			

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 114      **TRT#:** 4      **SEX:** Female      **DAY ON TEST:** 560  
**DOSE:** 262 MG/KG      **DISP:** Dead      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Islets, Pancreatic	Bone Marrow Pituitary Gland	Brain Stomach - Forestomach	Harderian Gland
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**OBSERVATIONS**

Kidney		Lymphoma Malignant Mixed	
Liver	Kupffer Cell	Hyperplasia	Moderate
		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 12-5			
Note: HYPERPLASIA TGLs = 12-5			
Lung		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 14-4			
Lymph Node	Inguinal	Lymphoma Malignant Mixed	
	Mediastinal	Lymphoma Malignant Mixed	
	Mesenteric	Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 4-23			
Note: LYMPH MAL MIXD TGLs = 13-5			
[ Lymphoma Malignant Mixed TGLS = 16-2 ]			
Mammary Gland		Carcinoma	
		Hyperplasia	Cystic, Moderate
		Lymphoma Malignant Mixed	
Note: CARCINOMA TGLs = 3-22			
Mesentery		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 11-24			
Ovary		Lymphoma Malignant Mixed	
Pancreas		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 9-5			
Skin	Subcut Tiss	Edema	Mild
		Lymphoma Malignant Mixed	
Note: EDEMA TGLs = 2-8			
Note: LYMPH MAL MIXD TGLs = 17-26			
Spleen		Lymphoma Malignant Mixed	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 114

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 560

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Lymphoma Malignant Mixed TGLS = 8-2 ]

Stomach Glandular

Lymphoma Malignant Mixed

Thymus

Lymphoma Malignant Mixed

[ Lymphoma Malignant Mixed TGLS = 15-25 ]

Thyroid Gland

Cyst

Tissue NOS

Lymphoma Malignant Mixed

Lymphoma Malignant Mixed

Note: TGL 5 IS ON ABDOMINAL FLUID SLIDE.

Note: LYMPH MAL MIXD TGLs = 5

Uterus

Hydrometra

Marked

Note: HYDROMETRA TGLs = 6-7,7-7

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 115	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Kidney
Lung	Ovary	Pancreas	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	

---

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Moderate
Liver		Inflammation	Chronic, Minimal
Mammary Gland		Hyperplasia	Cystic, Moderate
		Inflammation	Chronic, Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Uterus		Exudate	
		Hyperplasia	Cystic, Moderate

---

Note: HYPERPLASIA TGLs = 3-9

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 116

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 633

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Liver	Lung	Ovary	Pancreas
Pituitary Gland	Skin	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland			

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Moderate
Kidney		Inflammation	Chronic, Minimal
Mammary Gland		Hyperplasia	Cystic, Minimal
Uterus		Hyperplasia	Cystic, Marked

Note: HYPERPLASIA TGLs = 4-7,5-7

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 117	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Liver
Lung	Mammary Gland	Pancreas	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	

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**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Kidney		Infarct	Mild
Ovary		Cyst	
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
Uterus		Exudate	
		Hyperplasia	Cystic, Marked

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Note: HYPERPLASIA TGLs = 3-9

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 118

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 592

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Mammary Gland	Pancreas	Pituitary Gland	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Kidney		Inflammation	Chronic, Mild
Liver		Hematopoietic Cell Proliferation	Mild
	Kupffer Cell	Hyperplasia	Moderate
Lung		Thrombosis	
Ovary		Inflammation	Suppurative, Marked
Note: INFLAMMATION	TGLs = 3-7-1		
Spleen		Hematopoietic Cell Proliferation	Moderate
Note: HEMA CELL PROL	TGLs = 4-2		
Uterus		Hyperplasia	Cystic, Mild
Note: HYPERPLASIA	TGLs = 2-7		

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

---

<b>ANIMAL ID:</b> 119	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Liver
Lung	Ovary	Pancreas	Stomach - Forestomach
Stomach - Glandular			

---

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Moderate
Kidney		Inflammation	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 4-10			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 5-1 ]			
Skin	Subcut Tiss	Schwannoma Benign	
Note: SCHWANNOMA BGN TGLs = 3-23			
Thyroid Gland	Follicular Cel	Hyperplasia	Moderate

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

---

<b>ANIMAL ID:</b> 120	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone	Harderian Gland	Liver	Lung
Mammary Gland	Ovary	Pancreas	Skin
Stomach - Glandular	Thyroid Gland		

---

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Casts Protein	Minimal
		Inflammation	Chronic, Mild
Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Mild
Spleen		Hyperplasia	Lymphoid, Marked
Note: [ HYPERPLASIA ] TGLs = 4-2			
Stomach	Forestomach	Squamous Cell Papilloma	
Note: PAPILOMA SQUA TGLs = 5-6.1			
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 3-9			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05002-06  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: gamma-Butyrolactone  
CAS Number: 96-48-0

Date Report Requested: 10/20/2014  
Time Report Requested: 03:23:08  
First Dose M/F: NA / NA  
Lab: SRI

---

<b>ANIMAL ID:</b> 121	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Lung
Mammary Gland	Skin	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland			

---

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Kidney		Casts Protein	Minimal
Liver	Hepatocyte	Vacuolization Cytoplasmic	Mild
Ovary		Cyst	
		Hemorrhage	Mild
Pancreas		Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Mild
[ Adenoma TGLS = 4-1 ]			
Uterus		Angiectasis	Mild
		Exudate	
		Hyperplasia	Cystic, Moderate

Note: HYPERPLASIA TGLs = 3-9

---

PRIMARY CAUSE OF DEATH

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 122

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Liver
Mammary Gland	Pituitary Gland	Skin	Stomach - Forestomach
Stomach - Glandular			

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Mild
Kidney		Infarct	Mild
		Inflammation	Chronic, Mild
Lung		Inflammation	Chronic, Mild
Mesentery		Hemangiosarcoma	
	[ Hemangiosarcoma TGLS = 6-23 ]		
Ovary		Cyst	
Note: CYST	TGLs = 3-9		
Pancreas		Inflammation	Chronic, Moderate
Spleen		Hematopoietic Cell Proliferation	Mild
Note: HEMA CELL PROL	TGLs = 5-2		
Thyroid Gland	Follicular Cel	Adenoma	
Uterus		Hyperplasia	Cystic, Moderate
		Polyp Stromal	
Note: HYPERPLASIA	TGLs = 4-9		

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

---

<b>ANIMAL ID:</b> 123	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Brain	Islets, Pancreatic	Liver	Lung
Ovary	Pancreas	Pituitary Gland	Skin
Stomach - Forestomach	Stomach - Glandular		

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**MISSING**

Harderian Gland	Thyroid Gland		
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**OBSERVATIONS**

Bone	Coccygeal	Fibrosis	Moderate
	Coccygeal	Hyperplasia	Moderate
Note: FIBROSIS	TGLs = 4-23		
Note: HYPERPLASIA	TGLs = 4-23		
Bone Marrow		Myelofibrosis	Moderate
Kidney		Casts Protein	Minimal
		Inflammation	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA	TGLs = 3-9		

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 124

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Liver
Lung	Pancreas	Pituitary Gland	Skin
Stomach - Forestomach	Stomach - Glandular		

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Moderate
Brain		Infiltration Cellular	Histiocyte, Moderate
		Lymphoma Malignant Mixed	
		Mineralization	Mild
Intestine Large	Colon	Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 5-24			
Kidney		Mineralization	Minimal
	Renal Tubule	Necrosis	Minimal
Note: WITHIN THE RENAL PAPILLA.			
Note: THE NECROSIS INVOLVES COLLECTING TUBULES			
Lymph Node	Mesenteric	Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 4-23			
Mammary Gland		Hyperplasia	Cystic, Minimal
Ovary		Cystadenoma	
Spleen		Lymphoma Malignant Mixed	
Note: LYMPH MAL MIXD TGLs = 6-2			
Thyroid Gland		Cyst	
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 3-9			

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 125	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Islets, Pancreatic	Kidney	Liver
Ovary	Pancreas	Pituitary Gland	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	

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**MISSING**

Harderian Gland

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**OBSERVATIONS**

Bone Marrow	Myelofibrosis	Mild
Brain	Mineralization	Moderate
Lung	Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 4-4 ]		
Mammary Gland	Hyperplasia	Cystic, Minimal
Uterus	Exudate	
	Hyperplasia	Glandular, Moderate
	Hyperplasia	Cystic, Marked
[ Hyperplasia TGLS = 3-9 ]		
[ Hyperplasia TGLS = 3-9 ]		

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 126	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Liver
Lung	Mammary Gland	Ovary	Skin
Stomach - Glandular	Thyroid Gland		

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**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Mild
Kidney		Inflammation	Chronic, Moderate
Mammary GI			
Note: THE LESION IS PRESENT ON SLIDE 22.			
Pancreas		Inflammation	Chronic, Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Stomach	Forestomach	Squamous Cell Papilloma	
Note: PAPILOMA SQUA TGLs = 4-6-1			
Uterus		Exudate	
		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 3-9			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 127

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 617

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Harderian Gland	Liver
Lung	Mammary Gland	Ovary	Pancreas
Pituitary Gland	Skin	Stomach - Forestomach	Stomach - Glandular

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Moderate
Islets, Pancreatic		Hyperplasia	Minimal
Kidney		Inflammation	Chronic, Minimal
Thyroid Gland	Follicular Cel	Adenoma	
Uterus		Hyperplasia	Cystic, Marked
		Sarcoma Stromal	

Note: SARC STROMAL TGLs = 3-22

Note: HYPERPLASIA TGLs = 2-7

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 128

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 592

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Kidney
Lung	Mammary Gland	Ovary	Pancreas
Pituitary Gland	Skin	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland			

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Minimal
Liver		Inflammation	Chronic, Mild
Uterus		Hydrometra	Moderate
		Hyperplasia	Cystic, Moderate

Note: HYDROMETRA TGLs = 2-7-1

Note: HYPERPLASIA TGLs = 2-7

**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 129	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Brain	Islets, Pancreatic	Liver
Lung	Mammary Gland	Pancreas	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	

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**MISSING**

Harderian Gland

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**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Kidney		Casts Protein	Minimal
		Inflammation	Chronic, Mild
Ovary		Hemorrhage	Mild
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Angiectasis	Moderate
[ Adenoma TGLS = 5-1 ]			
Spleen		Lymphoma Malignant Lymphocytic	
Note: LYMPH MAL LYMP TGLs = 4-2			
Uterus		Exudate	
		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 3-9			

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 130	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Lung
Mammary Gland	Ovary	Pancreas	Pituitary Gland
Skin	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland

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**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Kidney		Inflammation	Chronic, Minimal
Liver		Inflammation	Chronic, Moderate
Uterus		Hyperplasia	Cystic, Marked

Note: HYPERPLASIA TGLs = 2-9

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PRIMARY CAUSE OF DEATH

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**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 131	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 464
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Dead	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Bone Marrow	Islets, Pancreatic	Kidney
Pancreas	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland

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**MISSING**

Harderian Gland	Pituitary Gland
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**OBSERVATIONS**

Brain		Mineralization	Minimal
Liver		Lymphoma Malignant Histiocytic	
	Lobules	Necrosis	Marked
Note: NECROSIS	TGLs = 2-5		
Note: LYMPH MAL HIST	TGLs = 2-5		
Lung		Lymphoma Malignant Histiocytic	
Mammary Gland		Hyperplasia	Cystic, Minimal
Ovary		Lymphoma Malignant Histiocytic	
Uterus		Exudate	
		Hydrometra	Moderate
		Lymphoma Malignant Histiocytic	
Note: LYMPH MAL HIST	TGLs = 1-7		

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 132

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Kidney	Liver	Lung	Mammary Gland
Pancreas	Pituitary Gland	Skin	

**MISSING**

Thyroid Gland

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Ovary		Cyst	
Note: CYST	TGLs = 3-9		
Stomach	Glandular	Cyst	
	Forestomach	Squamous Cell Papilloma	
[ Cyst TGLS = 7-6 ]			
Uterus		Exudate	
		Hydrometra	Marked
		Hyperplasia	Cystic, Mild
		Hyperplasia	Glandular, Moderate
		Metaplasia	Squamous, Moderate
Note: HYDROMETRA	TGLs = 5-9,6-9		
[ Hydrometra TGLS = 4-9 ]			
[ Hyperplasia TGLS = 4-9 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 133

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Mammary Gland
Ovary	Pancreas	Pituitary Gland	Stomach - Forestomach
Stomach - Glandular			

**MISSING**

Skeletal Muscle

**OBSERVATIONS**

Adrenal Gland	Cortex	Angiectasis	Marked
Note: ANGIECTASIS	TGLs = 6-8		
Bone Marrow		Hemangiosarcoma	
		Myelofibrosis	Mild
Brain		Mineralization	Mild
Kidney		Inflammation	Chronic, Mild
Liver	Lobules	Necrosis	Minimal
Lung		Alveolar/Bronchiolar Adenoma	
Skin	Subcut Tiss	Hemangiosarcoma	
Note: HEMANGIOSARC	TGLs = 3-23		
Thyroid Gland		Cyst	
	Follicular Cel	Hyperplasia	Minimal
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 4-9,5-9		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 134

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Liver	Ovary	Pancreas	Pituitary Gland
Skin	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Kidney		Casts Protein	Minimal
Lung		Inflammation	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
Note: THE HYPERPLASIA IS ON SLIDE 21.			
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA TGLs = 3-9			

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 135	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Liver	Pancreas	Skin	Stomach - Glandular

---

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Minimal
Kidney		Metaplasia	Osseous, Mild
Lung		Inflammation	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
Ovary		Cyst	
		Inflammation	Chronic, Moderate
		Inflammation	Suppurative, Mild
Note: PERIOVARIAN TISSUE.			
Note: THE INFLAMMATION INVOLVES THE			
Note: CYST TGLs = 3-9			
Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Mild
Stomach	Forestomach, Mucosa	Hyperplasia	Minimal
Thyroid Gland		Cyst	
	Follicular Cel	Hyperplasia	Minimal
Uterus		Exudate	
		Hyperplasia	Cystic, Moderate
		Metaplasia	Squamous, Moderate

Note: HYPERPLASIA TGLs = 4-9

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05002-06

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: gamma-Butyrolactone

CAS Number: 96-48-0

Date Report Requested: 10/20/2014

Time Report Requested: 03:23:08

First Dose M/F: NA / NA

Lab: SRI

ANIMAL ID: 136

TRT#: 4

DOSE: 262 MG/KG

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO:

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Islets, Pancreatic	Liver
Mammary Gland	Ovary	Pituitary Gland	Skin
Stomach - Forestomach	Stomach - Glandular		

OBSERVATIONS

Bone Marrow		Myelofibrosis	Mild
Harderian Gland		Adenoma	
Note: ADENOMA	TGLs = 3-14,3-23		
Kidney		Inflammation	Chronic, Mild
Lung		Hemorrhage	Mild
		Inflammation	Chronic, Mild
Mesentery		Hemangiosarcoma	
Note: HEMANGIOSARC	TGLs = 5-24		
Pancreas		Inflammation	Chronic, Minimal
Skeletal Muscle		Hemangiosarcoma	
Note: THE HEMANGOICARCINOMA IS PRESENT ON SLIDE 24.			
Thyroid Gland	Follicular Cel	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 4-9		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 137	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Liver	Ovary	Pancreas	Pituitary Gland
Skin	Stomach - Glandular	Thyroid Gland	

---

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Moderate
Kidney		Casts Protein	Minimal
		Inflammation	Chronic, Mild
Lung		Inflammation	Chronic, Mild
Mammary Gland		Hyperplasia	Cystic, Minimal
Stomach	Forestomach	Squamous Cell Papilloma	
Note: PAPILLOMA SQUA	TGLs = 5-6		
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 3-9.1		

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 138	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 591
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Liver
Lung	Ovary	Pancreas	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	

---

**MISSING**

Mammary Gland

---

**OBSERVATIONS**

Bone Marrow		Proliferation	Mild
Brain		Mineralization	Minimal
Kidney	Renal Tubule	Atrophy	Mild
		Inflammation	Chronic, Mild
	Renal Tubule	Regeneration	Mild
Mesentery		Inflammation	Suppurative, Marked
	Fat	Necrosis	Marked
Note: NECROSIS TGLs = 2-22			
Note: INFLAMMATION TGLs = 2-22			
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 139

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 630

**DOSE:** 262 MG/KG

**DISP:** Dead

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Lung	Pancreas	Pituitary Gland	Skin
Stomach - Forestomach	Stomach - Glandular		

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
		Proliferation	Moderate
Kidney		Inflammation	Chronic, Minimal
Liver	Kupffer Cell	Hyperplasia	Moderate
Mammary Gland		Hyperplasia	Cystic, Minimal
Ovary		Inflammation	Suppurative, Marked
Note: INFLAMMATION	TGLs = 2-7		
Spleen		Hematopoietic Cell Proliferation	Moderate
Note: HEMA CELL PROL	TGLs = 4-2		
Thyroid Gland		Cyst	

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 140

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 641

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Harderian Gland	Ovary
Pancreas	Pituitary Gland	Stomach - Forestomach	Stomach - Glandular
Thyroid Gland			

**INSUFFICIENT TISSUE**

Islets, Pancreatic

**OBSERVATIONS**

Brain		Mineralization	Mild
Kidney		Casts Protein	Minimal
		Fibrosarcoma	Metastatic (Skin)
Liver		Fibrosarcoma	Metastatic (Skin)
	Kupffer Cell	Hyperplasia	Moderate
Lung		Fibrosarcoma	Metastatic (Skin)
		Infiltration Cellular	Histiocyte, Mild
[ Fibrosarcoma TGLS = 5-4 ]			
Mammary Gland		Hyperplasia	Lobular, Mild
		Hyperplasia	Cystic, Minimal
		Fibrosarcoma	Metastatic (Skin)
Skeletal Muscle			
Note: FIBROSARC TGLs = 4			
Note: TGL 4 IS ON SLIDE III.			
Skin	Subcut Tiss	Fibrosarcoma	
Note: TGL 3 IS ON SLIDE II.			
[ Fibrosarcoma TGLS = 3 ]			
Uterus		Hyperplasia	Cystic, Mild
Note: HYPERPLASIA TGLs = 2-7			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 141

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Ovary
Pancreas	Pituitary Gland	Skin	Stomach - Glandular
Thyroid Gland			

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Minimal
Brain		Mineralization	Mild
Kidney		Casts Protein	Minimal
Liver		Inflammation	Chronic, Mild
Lung		Inflammation	Chronic, Mild
Lymph Node	Mesenteric	Ectasia	Moderate
	Mesenteric	Hyperplasia	Reticulum Cell, Mild
Note: [ ECTASIA ] TGLs = 5-23			
Note: [ HYPERPLASIA ] TGLs = 5-23			
Mammary Gland		Hyperplasia	Cystic, Minimal
Stomach	Forestomach	Diverticulum	Moderate
Uterus		Adenoma	
		Hyperplasia	Cystic, Mild
Note: ADENOMA TGLs = 4-9			
Note: HYPERPLASIA TGLs = 3-9			

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 142

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 690

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Lung	Pancreas	Skin	Stomach - Forestomach
Stomach - Glandular			

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Minimal
		Proliferation	Mild
Kidney		Glomerulosclerosis	Minimal
		Inflammation	Chronic, Mild
Liver		Hematopoietic Cell Proliferation	Moderate
	Kupffer Cell	Hyperplasia	Moderate
Lymph Node	Renal	Hyperplasia	Plasma Cell, Marked
Note: HYPERPLASIA	TGLs = 6-22		
Mammary Gland		Hyperplasia	Cystic, Mild
Ovary		Inflammation	Suppurative, Marked
Note: INFLAMMATION	TGLs = 3-9,4-9		
Pituitary Gland	Pars Distalis	Cyst	
[ Cyst TGLS = 7-1 ]			
Skeletal Muscle		Inflammation	Suppurative, Marked
Note: INFLAMMATION	TGLs = 4-9		
Spleen		Hematopoietic Cell Proliferation	Marked
[ Hematopoietic Cell Proliferation TGLS = 5-2 ]			
Thyroid Gland		Cyst	

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 143

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 591

**DOSE:** 262 MG/KG

**DISP:** Moribund

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Kidney	Liver	Lung	Pancreas
Pituitary Gland	Skin	Stomach - Forestomach	Stomach - Glandular

**OBSERVATIONS**

Bone Marrow	Proliferation	Mild
Mammary Gland	Hyperplasia	Cystic, Minimal
Ovary	Cyst	
	Inflammation	Suppurative, Marked
Note: CYST TGLs = 4-7 [ Cyst TGLS = 3-7-1 ]		
Thyroid Gland	Cyst	
Uterus	Inflammation	Suppurative, Moderate

Note: INFLAMMATION TGLs = 2-7

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 144	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Liver
Lung	Mammary Gland	Pancreas	Skin
Stomach - Forestomach	Stomach - Glandular	Thyroid Gland	

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**MISSING**

Ovary

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**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Moderate
Kidney		Inflammation	Chronic, Mild
Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Mild
Thymus		Hyperplasia	Lymphoid, Moderate
Note: HYPERPLASIA	TGLs = 4-23		
Uterus		Exudate	
		Hyperplasia	Cystic, Mild
Note: HYPERPLASIA	TGLs = 3-9		

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**PRIMARY CAUSE OF DEATH** -

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Animal Note: TGL 4 IS THYMUS MICROSCOPIC.

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 145	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 477
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Moribund	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Bone Marrow	Islets, Pancreatic	Liver
Lung	Mammary Gland	Ovary	Pancreas
Pituitary Gland	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland

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**MISSING**

Harderian Gland

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**OBSERVATIONS**

Blood		Anemia	Moderate
		Leukocytosis	Mild
Note: ANEMIA	TGLs = 3-61		
Brain		Mineralization	Mild
Kidney		Casts Protein	Minimal
		Inflammation	Chronic, Minimal
Skin	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC	TGLs = 1-22		
Spleen		Hematopoietic Cell Proliferation	Moderate
Note: HEMA CELL PROL	TGLs = 4-2		

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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<b>ANIMAL ID:</b> 146	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 262 MG/KG	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b>

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Kidney	Lung	Ovary	Pancreas
Skin	Stomach - Forestomach	Stomach - Glandular	Thyroid Gland

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**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Liver	Lobules	Necrosis	Minimal
Mammary Gland		Hyperplasia	Cystic, Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 5-1 ]			
Spleen		Hematopoietic Cell Proliferation	Mild
[ Hematopoietic Cell Proliferation TGLS = 4-2 ]			
[ Lymphoma Malignant Mixed TGLS = 4-2 ]			
Uterus		Hyperplasia	Cystic, Moderate
Note: HYPERPLASIA TGLs = 2-9,3-9			

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**PRIMARY CAUSE OF DEATH** -

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Animal Note: SMOOTH MUSCLE TUMOR PRESENT IN VAGINA; NOT CODED.

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 147

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Liver
Lung	Mammary Gland	Ovary	Pancreas
Pituitary Gland	Skin	Stomach - Glandular	Thyroid Gland

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Minimal
Kidney		Inflammation	Chronic, Mild
Stomach	Forestomach	Squamous Cell Papilloma	
	[ Squamous Cell Papilloma TGLS = 3-6 ]		
Uterus		Hyperplasia	Cystic, Marked
Note: HYPERPLASIA	TGLs = 2-9		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 148

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Harderian Gland	Islets, Pancreatic
Liver	Lung	Mammary Gland	Pancreas
Pituitary Gland	Skin	Stomach - Forestomach	Stomach - Glandular

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Moderate
Kidney		Cyst	
		Inflammation	Chronic, Mild
Ovary		Cyst	
Note: CYST	TGLs = 3-9,4-9		
Spleen		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 5-23 ]		
Thyroid Gland	Follicular Cel	Adenoma	

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 149      **TRT#:** 4      **SEX:** Female      **DAY ON TEST:** 732  
**DOSE:** 262 MG/KG      **DISP:** Terminal Sacrifice      **HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone      Pancreas      Stomach - Forestomach

**MISSING**

Pituitary Gland

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Mild
Brain		Mineralization	Minimal
Eye		Cataract	Mild
	Cornea	Hyperplasia	Moderate
	Cornea	Inflammation	Chronic, Moderate
Note: CATARACT	TGLs = 1-44		
Note: INFLAMMATION	TGLs = 1-44		
Note: HYPERPLASIA	TGLs = 1-44		
Harderian Gland		Adenoma	
Note: ADENOMA	TGLs = 11-28		
Islets, Pancreatic		Amyloid Deposition	Mild
Kidney		Cyst	
		Inflammation	Chronic, Minimal
Liver	Kupffer Cell	Hyperplasia	Mild
Lung		Inflammation	Chronic, Minimal
Mammary Gland		Hyperplasia	Lobular, Mild
		Hyperplasia	Cystic, Minimal
Ovary		Cyst	
Skin		Acanthosis	Moderate
	Subcut Tiss	Fibrosarcoma	
Note: FIBROSARC	TGLs = 3-22,5-24,10-27		
Note: ACANTHOSIS	TGLs = 2-21		
Stomach	Glandular	Inflammation	Chronic Active, Moderate
Thyroid Gland	Follicular Cel	Hyperplasia	Mild
Uterus		Carcinoma	
		Hyperplasia	Cystic, Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

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**ANIMAL ID:** 149

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: HYPERPLASIA TGLs = 6-9,7-9

Note: CARCINOMA TGLs = 8-25

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05002-06  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** gamma-Butyrolactone  
**CAS Number:** 96-48-0

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 03:23:08  
**First Dose M/F:** NA / NA  
**Lab:** SRI

**ANIMAL ID:** 150

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 262 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Harderian Gland	Islets, Pancreatic	Lung
Mammary Gland	Pancreas	Pituitary Gland	Stomach - Forestomach
Stomach - Glandular	Thyroid Gland		

**OBSERVATIONS**

Bone Marrow		Myelofibrosis	Moderate
Brain		Mineralization	Moderate
Kidney	Renal Tubule	Atrophy	Mild
Liver		Inflammation	Chronic, Minimal
Ovary		Cyst	
Uterus		Hyperplasia	Cystic, Marked

Note: HYPERPLASIA TGLs = 1-9

PRIMARY CAUSE OF DEATH

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