

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)

**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:40

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

**Lab:** TSI MASON

**C Number:**

C62077

**Lock Date:**

Not Entered.

**Cage Range:**

All

**Date Range:**

All

**Reasons For Removal:**

All

**Removal Date Range:**

All

**Treatment Groups:**

All

**Study Gender:**

Both

**PWG Approval Date**

NONE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:40

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 1

TRT#: 1

SEX: Male

DAY ON TEST: 92

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887920

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland

**OBSERVATIONS**

Heart		Cardiomyopathy	Minimal
Note: ANITSCHKOW MYOCYTES AND ROUND CELLS.			
Kidney	Renal Tubule	Regeneration	Minimal
Pituitary Gland	Pars Distalis	Cyst	

PRIMARY CAUSE OF DEATH

-

Animal Note: LARGE AND SMALL INTESTINE.

Animal Note: PROMINENT LYMPHOID TISSUE IN SECTIONS OF

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:40

First Dose M/F: NA / NA

Lab: TSI MASON

<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 1 <b>DOSE:</b> 0 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 92 <b>HISTO:</b> 887921
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**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Heart Note: CLUSTERS OF ROUND CELLS.		Cardiomyopathy	Minimal
Intest Small Note: ILEUM: LARGE LYMPHOID TISSUE.			
Kidney	Renal Tubule	Regeneration	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:40

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 3

TRT#: 1

SEX: Male

DAY ON TEST: 92

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887922

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Liver  
Nose  
Preputial Gland  
Skeletal Muscle  
Stomach - Glandular  
Trachea

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lung  
Pancreas  
Prostate  
Skin  
Testes

Bone  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mandibular  
Parathyroid Gland  
Salivary Glands  
Spleen  
Thymus

Bone Marrow  
Heart  
Intestine Small - Duodenum  
Kidney  
Lymph Node - Mesenteric  
Pituitary Gland  
Seminal Vesicle  
Stomach - Forestomach  
Thyroid Gland

MISSING

Mammary Gland

OBSERVATIONS

Urinary Bladder

Calculus Gross Observation  
Calculus Micro Observation Only

Note: [ CALCUS MIC OBS ] TGLs = 1-9

PRIMARY CAUSE OF DEATH

-

Animal Note: LYMPHOID TISSUE IN LARGE AND SMALL INTESTINES.

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:40

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 4

TRT#: 1

SEX: Male

DAY ON TEST: 92

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887923

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Kidney	Renal Tubule	Regeneration	Minimal
Lung		Hemorrhage	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:40

First Dose M/F: NA / NA

Lab: TSI MASON

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<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 92
	<b>DOSE:</b> 0 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 887924

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

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

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**OBSERVATIONS**

Heart		Cardiomyopathy	Minimal
Kidney	Renal Tubule	Regeneration	Minimal
Lung		Infiltration Cellular	Histiocyte, Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:40

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 6

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887925

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Nose

Note: BLOOD IN NASAL CAVITY.

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:40

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 7

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887926

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Heart	Cardiomyopathy	Minimal
Liver	Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 1-6.1,2-6 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 93
	<b>DOSE:</b> 0 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 887927

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland

**OBSERVATIONS**

Heart		Cardiomyopathy	Minimal
Note: CLUSTER OF ROUND CELLS, ANITSCHKOW MYOCYTES			
Intest Small			
Note: ILEUM: LYMPHOID TISSUE.			
Kidney	Cortex	Mineralization	Minimal
	Renal Tubule	Regeneration	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 9

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887928

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Mammary Gland	Parathyroid Gland
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**OBSERVATIONS**

Heart	Cardiomyopathy	Minimal
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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

**ANIMAL ID:** 10

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 0 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887929

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Nose  
Prostate  
Skin  
Testes  
Urinary Bladder

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Salivary Glands  
Spleen  
Thymus

Bone  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Pituitary Gland  
Seminal Vesicle  
Stomach - Forestomach  
Thyroid Gland

Bone Marrow  
Heart  
Intestine Small - Duodenum  
Liver  
Mammary Gland  
Preputial Gland  
Skeletal Muscle  
Stomach - Glandular  
Trachea

**MISSING**

Parathyroid Gland

**OBSERVATIONS**

Intest Small  
Note: ILEUM: LYMPHOID TISSUE.  
Kidney

Renal Tubule

Regeneration

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

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**ANIMAL ID:** 11

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 92

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887930

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Bone Marrow

Epididymis

Liver

Preputial Gland

Spleen

Testes

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**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Preputial GI

Note: SECRETORY MATERIAL FILLS DUCTS

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

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**ANIMAL ID:** 12

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 92

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887931

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Spleen

Testes

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**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Minimal

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

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**ANIMAL ID:** 13

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 92

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887932

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Spleen

Testes

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

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**ANIMAL ID:** 14

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 92

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887933

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Spleen

Testes

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 15

TRT#: 3

SEX: Male

DAY ON TEST: 92

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 887934

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Spleen

Testes

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Hepatodiaphragmatic Nodule

Note: [ HDN ] TGLs = 2-6

Urinary Bladder

Calculus Gross Observation

Calculus Micro Observation Only

[ Calculus Gross Observation TGLS = 1-9 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

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**ANIMAL ID:** 16

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887935

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Kidney

Liver

Spleen

Testes

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**OBSERVATIONS**

Urinary Bladder

Calculus Gross Observation

Calculus Micro Observation Only

[ Calculus Gross Observation TGLS = 1-9 ]

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

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**ANIMAL ID:** 17

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887936

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Liver

Spleen

Testes

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 18

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887937

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Kidney

Liver

Spleen

Testes

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 19

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887938

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Kidney

Spleen

Testes

---

**OBSERVATIONS**

Liver

Cytoplasmic Alteration

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 20

TRT#: 3

SEX: Male

DAY ON TEST: 93

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 887939

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Kidney

Spleen

Testes

**OBSERVATIONS**

Liver

Hepatodiaphragmatic Nodule

Note: [ HDN ] TGLs = 2-6.1

Urinary Bladder

Calculus Gross Observation

Calculus Micro Observation Only

[ Calculus Gross Observation TGLS = 1-9 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 21

TRT#: 5

SEX: Male

DAY ON TEST: 92

DOSE: 1500 PPM

DISP: Terminal Sacrifice

HISTO: 887940

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Spleen

Testes

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 22

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 92

**DOSE:** 1500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887941

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Kidney

Spleen

Testes

---

**OBSERVATIONS**

Liver

Cytoplasmic Alteration

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 23

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 92

**DOSE:** 1500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887942

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Spleen

Testes

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 24

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 92

**DOSE:** 1500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887943

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Kidney

Testes

---

**OBSERVATIONS**

Liver

Cytoplasmic Alteration

Minimal

Hepatodiaphragmatic Nodule

Note: [ HDN ] TGLs = 1-6

Spleen

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

---

ANIMAL ID: 25

TRT#: 5

SEX: Male

DAY ON TEST: 92

DOSE: 1500 PPM

DISP: Terminal Sacrifice

HISTO: 887944

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Kidney

Spleen

Testes

---

**OBSERVATIONS**

Liver

Cytoplasmic Alteration

Minimal

Urinary Bladder

Calculus Gross Observation

Calculus Micro Observation Only

[ Calculus Gross Observation TGLS = 1-9 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 26

TRT#: 5

SEX: Male

DAY ON TEST: 93

DOSE: 1500 PPM

DISP: Terminal Sacrifice

HISTO: 887945

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Testes

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Hepatodiaphragmatic Nodule

Note: [ HDN ] TGLs = 2-6

Spleen

Pigmentation

Minimal

Note: TGL #1: A LARGE LYMPHOID FOLLICLE

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 27

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 1500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887946

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Kidney

Spleen

Testes

---

**OBSERVATIONS**

Liver

Cytoplasmic Alteration

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 28

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 1500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887947

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Kidney

Spleen

Testes

---

**OBSERVATIONS**

Liver

Cytoplasmic Alteration

Minimal

Note: CONGESTION

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 29

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 1500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887948

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Liver

Spleen

Testes

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 30

TRT#: 5

SEX: Male

DAY ON TEST: 93

DOSE: 1500 PPM

DISP: Terminal Sacrifice

HISTO: 887949

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Spleen

Testes

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Minimal

Hepatodiaphragmatic Nodule

Note: [ HDN ] TGLs = 1-6

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 31

TRT#: 7

SEX: Male

DAY ON TEST: 92

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 887950

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Epididymis

Intestine Small

Testes

**OBSERVATIONS**

Bone Marrow

Hyperplasia

Minimal

Intest Small

Note: TGL #1: LYMPHOID TISSUE IN ILEUM

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Minimal

Degeneration

Minimal

Spleen

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 32

TRT#: 7

SEX: Male

DAY ON TEST: 92

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 887951

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Kidney

Pancreas

Testes

**OBSERVATIONS**

Liver

Cytoplasmic Alteration

Minimal

Degeneration

Minimal

Pancreas

Note: LYMPH NODE APPEAR NORMAL

Note: TGL #2: BOTH PANCREAS AND PANCREATIC

Seminal Vesicle

Atrophy

Minimal

Note: [ ATROPHY ] TGLs = 1-7.1

Spleen

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 33

TRT#: 7

SEX: Male

DAY ON TEST: 92

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 887952

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow  
Urinary Bladder

Epididymis

Kidney

Testes

**OBSERVATIONS**

Liver  
Cytoplasmic Alteration  
Degeneration  
Mandibular  
Angiectasis  
Mediastinal  
Angiectasis  
Spleen  
Pigmentation

Minimal  
Minimal  
Minimal  
Mild  
Minimal

Note: [ ANGIECTASIS ] TGLs = 1-9,3-3

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 34

TRT#: 7

SEX: Male

DAY ON TEST: 92

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 887953

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Testes

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Liver

Cytoplasmic Alteration

Mild

Spleen

Degeneration

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 35

TRT#: 7

SEX: Male

DAY ON TEST: 92

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 882954

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Testes

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Minimal

Degeneration

Minimal

Hepatodiaphragmatic Nodule

Note: [ HDN ] TGLs = 1-6.1

Spleen

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 36

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 887955

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Epididymis Testes

**OBSERVATIONS**

Bone Marrow Hyperplasia Minimal

Kidney Renal Tubule Regeneration Mild

Note: NUCLEI OF A FEW RENAL TUBULAR CELLS ARE PYKNOTIC

Note: INFLAMMATORY CELLS IN INTERSTITIUM.

Liver Degeneration Minimal

Hepatodiaphragmatic Nodule

Note: [ HDN ] TGLs = 1-6

Spleen Pigmentation Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 37

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 887956

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Testes

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Minimal

Spleen

Degeneration

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 38

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 3000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887957

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Testes

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Minimal

Spleen

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 39

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 887958

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Testes

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Hepatodiaphragmatic Nodule

Note: [ HDN ] TGLs = 1-6

Spleen

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 40

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 3000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887959

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Testes

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Degeneration

Minimal

Spleen

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 41

TRT#: 9

SEX: Male

DAY ON TEST: 92

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 887960

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Testes

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

Hepatodiaphragmatic Nodule

Note: [ HDN ] TGLs = 1-6

Spleen

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 42

TRT#: 9

SEX: Male

DAY ON TEST: 92

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 887961

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Testes

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

Degeneration

Minimal

Note: SINGLE CELL NECROSIS

Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 43

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 92

**DOSE:** 4500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887962

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Testes

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

Spleen

Degeneration

Minimal

Pigmentation

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 44

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 92

**DOSE:** 4500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887963

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Testes

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

Spleen

Degeneration

Minimal

Pigmentation

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 45

TRT#: 9

SEX: Male

DAY ON TEST: 92

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 887964

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Testes

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

Lymph Node

Mandibular

Angiectasis

Mild

Note: [ ANGIECTASIS ] TGLs = 1-9

Spleen

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 46

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 4500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887965

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Kidney

Testes

---

**OBSERVATIONS**

Liver

Cytoplasmic Alteration

Mild

Degeneration

Minimal

Spleen

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 47

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 887966

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Epididymis

Intestine Small

Testes

**OBSERVATIONS**

Bone Marrow

Hyperplasia

Mild

Intest Small

Note: TGL #2: LYMPHOID TISSUE IN ILEUM

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Mild

Degeneration

Minimal

Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Mild

Urinary Bladder

Calculus Gross Observation

Calculus Micro Observation Only

Note: [ CALCUS MIC OBS ] TGLs = 1-9

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 48

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 4500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887967

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Epididymis

Testes

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

Spleen

Degeneration

Minimal

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 49

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 887968

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Epididymis

Spleen

Testes

**OBSERVATIONS**

Bone Marrow

Hyperplasia

Mild

Kidney

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Mild

Degeneration

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 50

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 887969

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Epididymis

Spleen

Testes

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Mild

Degeneration

Minimal

Lymph Node

Pancreatic

Infiltration Cellular

Histiocyte, Mild

Note: [ INFILTRAT CELL ] TGLs = 1-9

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 51

TRT#: 11

SEX: Male

DAY ON TEST: 92

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 887970

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

Mammary Gland

OBSERVATIONS

Heart		Cardiomyopathy	Minimal
Intest Small			
Note: LYMPHOID TISSUE ILEUM			
Kidney	Cortex	Mineralization	Minimal
Note: A FEW INFLAMMATORY CELLS IN INTERSTITIUM			
Liver		Cytoplasmic Alteration	Minimal
		Degeneration	Minimal
		Pigmentation	Minimal
Note: DEGENERATION AND PIGMENT IN A FEW			
Note: CELLS IN CENTRIOBULAR AREA			
Spleen		Pigmentation	Mild
Note: [ PIGMENT ] TGLs = 2-3			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 52

TRT#: 11

SEX: Male

DAY ON TEST: 92

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 887971

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Epididymis  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Kidney  
Mammary Gland  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Trachea

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Nose  
Preputial Gland  
Skeletal Muscle  
Testes  
Urinary Bladder

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Prostate  
Skin  
Thymus

OBSERVATIONS

Bone Marrow  
Heart  
Intest Small  
    Note: LYMPHOID TISSUE IN ILEUM (TGL #1)  
Liver  
  
    Note: SINGLE CELL NECROSIS  
Spleen

Hyperplasia  
Cardiomyopathy  
  
Cytoplasmic Alteration  
Degeneration  
Pigmentation  
  
Pigmentation

Mild  
Minimal  
  
Mild  
Minimal  
Minimal  
  
Mild

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 53

TRT#: 11

SEX: Male

DAY ON TEST: 92

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 887972

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Epididymis  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Kidney  
Mammary Gland  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Trachea

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Nose  
Preputial Gland  
Skeletal Muscle  
Testes  
Urinary Bladder

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Prostate  
Skin  
Thymus

OBSERVATIONS

Bone Marrow  
Heart  
Intest Small  
Note: LYMPHOID TISSUE IN ILEUM  
Liver

Hyperplasia  
Cardiomyopathy

Mild  
Minimal

Note: PIGMENT IN ENDOTHELIAL CELLS  
Note: [ CYTOPLAS ALTER ] TGLs = 1-6+6.1  
Spleen

Cytoplasmic Alteration  
Degeneration  
Pigmentation

Mild  
Minimal  
Minimal

Hematopoietic Cell Proliferation  
Pigmentation

Minimal  
Mild

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 54

TRT#: 11

SEX: Male

DAY ON TEST: 92

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 887973

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Mammary Gland  
Preputial Gland  
Skeletal Muscle  
Testes  
Urinary Bladder

Adrenal Gland - Medulla  
Epididymis  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Prostate  
Skin  
Thymus

Bone  
Esophagus  
Intestine Small - Duodenum  
Lymph Node - Mandibular  
Pancreas  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mesenteric  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Trachea

MISSING

Parathyroid Gland

OBSERVATIONS

Heart  
Kidney                      Renal Tubule  
    Note: A FEW INFLAMMATORY CELLS IN INTERSTITIUM  
Liver  
  
    Note: SINGLE CELL NECROSIS  
Lung  
Spleen

Cardiomyopathy                      Minimal  
Regeneration                          Minimal  
  
Cytoplasmic Alteration                      Mild  
Degeneration                              Minimal  
Pigmentation                                Minimal  
  
Hemorrhage                                Minimal  
Pigmentation                                Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 55

TRT#: 11

SEX: Male

DAY ON TEST: 92

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 887974

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Bone Marrow	Hyperplasia	Mild
Heart	Cardiomyopathy	Minimal
Intest Large		
Note: LYMPHOID TISSUE IN COLON		
Intest Small		
Note: LYMPHOID TISSUE IN ILEUM		
Liver	Cytoplasmic Alteration	Mild
	Degeneration	Minimal
	Pigmentation	Minimal
Note: SINGLE CELL NECROSIS		
Note: PIGMENT IN ENDOTHELIAL CELLS		
Spleen	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 56

TRT#: 11

SEX: Male

DAY ON TEST: 93

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 887975

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

Mammary Gland

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Heart		Cardiomyopathy	Minimal
Intest Large			
Note: LYMPHOID TISSUE IN CECUM			
Intest Small			
Note: LYMPHOID TISSUE IN JEJUNUM AND ILEUM			
Kidney	Renal Tubule	Regeneration	Minimal
Note: INFLAMMATORY CELLS IN INTERSTITIUM			
Note: PROTEIN CASTS IN A FEW TUBULES			
Liver		Cytoplasmic Alteration	Mild
		Degeneration	Minimal
		Hepatodiaphragmatic Nodule	
Note: [ HDN ] TGLs = 3-6.1			
Note: LIVER APPEARS NORMAL.			
Lymph Node	Mandibular	Pigmentation	Minimal
Note: [ PIGMENT ] TGLs = 1-9			
Pituitary Gland			
Note: DEGRANULATED CELLS			
Spleen		Pigmentation	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

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**ANIMAL ID:** 56

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 93

**DOSE:** 6000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887975

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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: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 57

TRT#: 11

SEX: Male

DAY ON TEST: 93

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 887976

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Heart		Cardiomyopathy	Minimal
Intest Small			
Note: LYMPHOID TISSUE IN ILEUM			
Kidney	Renal Tubule	Regeneration	Minimal
Note: A FEW INFLAMMATORY CELLS IN INTERSTITIUM			
Liver		Cytoplasmic Alteration	Mild
		Degeneration	Minimal
		Pigmentation	Minimal
Note: SINGLE CELL NECROSIS			
Pituitary Gland			
Note: DEGRANULATED CELLS			
Spleen		Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 58

TRT#: 11

SEX: Male

DAY ON TEST: 93

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 887977

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

Mammary Gland

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Heart		Cardiomyopathy	Minimal
Note: A FEW ANITSCHKOW MYOCYTES			
Intest Small			
Note: LYMPHOID TISSUE IN ILEUM			
Kidney	Renal Tubule	Regeneration	Minimal
Note: A FEW INFLAMMATORY CELLS IN INTERSTITIUM			
Liver		Cytoplasmic Alteration	Mild
		Degeneration	Minimal
		Hepatodiaphragmatic Nodule	
		Pigmentation	Minimal
Note: SINGLE CELL NECROSIS			
Note: [ HDN ] TGLs = 1-6.1			
Lung		Hemorrhage	Mild
Pituitary Gland			
Note: DEGRANULATED CELLS			
Spleen		Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 59

TRT#: 11

SEX: Male

DAY ON TEST: 93

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 887978

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

Mammary Gland

OBSERVATIONS

Bone Marrow	Hyperplasia	Mild
Heart	Cardiomyopathy	Minimal
Intest Small		
Note: LYMPHOID TISSUE IN ILEUM		
Liver	Cytoplasmic Alteration Degeneration	Mild Minimal
Note: SINGLE CELL NECROSIS		
Note: HDN NOT DISCRNIBLE.		
Pituitary Gland		
Note: DEGRANULATED CELLS		
Spleen	Hematopoietic Cell Proliferation Pigmentation	Minimal Mild
Note: CONGESTION (2-3+) AND PIGMENT		
Thyroid Gland		
Note: ULTIMOBRANCHIAL BODY		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 60

TRT#: 11

SEX: Male

DAY ON TEST: 93

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 887979

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Epididymis  
Intestine Large - Rectum  
Islets, Pancreatic  
Nose  
Preputial Gland  
Skeletal Muscle  
Testes  
Urinary Bladder

Adrenal Gland - Medulla  
Esophagus  
Intestine Small - Duodenum  
Lung  
Pancreas  
Prostate  
Skin  
Thymus

Bone  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Parathyroid Gland  
Salivary Glands  
Stomach - Forestomach  
Thyroid Gland

Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Pituitary Gland  
Seminal Vesicle  
Stomach - Glandular  
Trachea

MISSING

Mammary Gland

OBSERVATIONS

Bone Marrow  
Heart  
Intest Small

Hyperplasia  
Cardiomyopathy

Mild  
Minimal

Note: LYMPHOID TISSUE IN ILEUM

Kidney  
Note: A FEW INFLAMMATORY CELLS IN ENDOMETRIUM

Renal Tubule

Regeneration

Minimal

Liver  
Cytoplasmic Alteration  
Degeneration

Minimal  
Minimal

Pituitary Gland  
Note: DEGRANULATED CELLS

Spleen  
Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 61

TRT#: 2

SEX: Female

DAY ON TEST: 92

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887980

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland	Nose
Ovary	Pancreas	Pituitary Gland	Salivary Glands
Skeletal Muscle	Skin	Spleen	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus	Vagina	

MISSING

Parathyroid Gland

OBSERVATIONS

Kidney	Cortex	Mineralization	Minimal
Lung		Hemorrhage	Minimal
Uterus			

Note: DISTENDED.

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 62

TRT#: 2

SEX: Female

DAY ON TEST: 92

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887981

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Nose  
Pituitary Gland  
Spleen  
Thyroid Gland  
Vagina

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Ovary  
Salivary Glands  
Stomach - Forestomach  
Trachea

Bone  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Pancreas  
Skeletal Muscle  
Stomach - Glandular  
Urinary Bladder

Bone Marrow  
Heart  
Intestine Small - Duodenum  
Liver  
Mammary Gland  
Parathyroid Gland  
Skin  
Thymus  
Uterus

**OBSERVATIONS**

Kidney Cortex Mineralization Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 63

TRT#: 2

SEX: Female

DAY ON TEST: 92

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887982

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland
Nose	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skeletal Muscle	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus
Vagina			

**OBSERVATIONS**

Intest Small  
Note: LYMPHOID TISSUE IN ILEUM  
Kidney

Cortex

Mineralization

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 64

TRT#: 2

SEX: Female

DAY ON TEST: 92

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887983

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skeletal Muscle	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	Vagina

**MISSING**

Mammary Gland

**OBSERVATIONS**

Intest Large  
Note: LYMPHOID TISSUE IN COLON  
Intest Small  
Note: LYMPHOID TISSUE IN ILEUM  
Kidney

Cortex  
Renal Tubule

Mineralization  
Regeneration

Mild  
Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 65

TRT#: 2

SEX: Female

DAY ON TEST: 92

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887984

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex  
Brain  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mandibular  
Pancreas  
Skeletal Muscle  
Stomach - Glandular  
Urinary Bladder

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Rectum  
Islets, Pancreatic  
Lymph Node - Mesenteric  
Parathyroid Gland  
Skin  
Thymus  
Uterus

Bone  
Esophagus  
Intestine Small - Duodenum  
Liver  
Nose  
Pituitary Gland  
Spleen  
Thyroid Gland  
Vagina

Bone Marrow  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lung  
Ovary  
Salivary Glands  
Stomach - Forestomach  
Trachea

**MISSING**

Mammary Gland

**OBSERVATIONS**

Heart		Cardiomyopathy	Minimal
Kidney	Cortex	Mineralization	Mild
	Renal Tubule	Regeneration	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 66

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887985

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

Lung

OBSERVATIONS

Kidney	Cortex	Mineralization	Minimal
	Renal Tubule	Regeneration	Minimal
Liver		Hepatodiaphragmatic Nodule	

[ Hepatodiaphragmatic Nodule TGLS = 1-6.1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 67

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887986

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Nose
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skeletal Muscle	Skin	Spleen
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	Vagina

**MISSING**

Mammary Gland

**OBSERVATIONS**

Kidney	Cortex	Mineralization	Minimal
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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 68

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887987

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland
Nose	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skeletal Muscle	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

MISSING

Vagina

OBSERVATIONS

Intest Small			
Note: LYMPHOID TISSUE IN ILEUM			
Kidney	Cortex	Mineralization	Minimal
Thyroid GI			
Note: ? ECTOPIC THYMUS ? MEDULLA NOT PRESENT			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 69

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887988

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Liver
Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric	Mammary Gland
Nose	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skeletal Muscle	Skin
Spleen	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus
Vagina			

**OBSERVATIONS**

Kidney	Cortex	Mineralization	Minimal
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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 70

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 PPM

DISP: Terminal Sacrifice

HISTO: 887989

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex  
Brain  
Intestine Large - Cecum  
Intestine Small - Ileum  
Lymph Node - Mandibular  
Ovary  
Skeletal Muscle  
Stomach - Glandular  
Urinary Bladder

Adrenal Gland - Medulla  
Clitoral Gland  
Intestine Large - Colon  
Intestine Small - Jejunum  
Lymph Node - Mesenteric  
Pancreas  
Skin  
Thymus  
Uterus

Bone  
Esophagus  
Intestine Large - Rectum  
Islets, Pancreatic  
Mammary Gland  
Pituitary Gland  
Spleen  
Thyroid Gland  
Vagina

Bone Marrow  
Heart  
Intestine Small - Duodenum  
Lung  
Nose  
Salivary Glands  
Stomach - Forestomach  
Trachea

MISSING

Parathyroid Gland

OBSERVATIONS

Intest Small  
Note: LYMPHOID TISSUE IN ILEUM  
Kidney  
Liver  
Note: [ HDN ] TGLs = 1-6.1

Cortex

Mineralization  
Hepatodiaphragmatic Nodule

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

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**ANIMAL ID:** 71

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 92

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887990

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Kidney

Ovary

Spleen

Uterus

---

**OBSERVATIONS**

Liver

Cytoplasmic Alteration

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 72

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 92

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887991

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Ovary

Spleen

Uterus

---

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

<b>ANIMAL ID:</b> 73	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 92
	<b>DOSE:</b> 750 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 887992

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

<b>NORMAL</b>			
Bone Marrow	Ovary	Spleen	Uterus
<b>OBSERVATIONS</b>			
Kidney	Cortex	Mineralization	Minimal
Liver		Cytoplasmic Alteration	Minimal
<b>PRIMARY CAUSE OF DEATH</b>	-		

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 74

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 92

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887993

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Liver

Ovary

Spleen

---

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Uterus

Dilatation

Mild

[ Dilatation TGLS = 1-7 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 75

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 92

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887994

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Liver

Ovary

Spleen

Uterus

---

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Note: PROTEIN CASTS IN A FEW TUBULES

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 76

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 93

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887995

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Liver

Ovary

Spleen

Uterus

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 77

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 93

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887996

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow  
Uterus

Liver

Ovary

Spleen

---

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 78

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 93

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887997

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Liver

Ovary

Spleen

Uterus

---

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

---

Note: PROTEIN CASTS IN A FEW TUBULES

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 79

TRT#: 4

SEX: Female

DAY ON TEST: 93

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 887998

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Spleen

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

Uterus

Dilatation

Mild

[ Dilatation TGLS = 1-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 80

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 93

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 887999

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Ovary

Spleen

Uterus

---

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Liver

Cytoplasmic Alteration

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 81

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 92

**DOSE:** 1500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 888000

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Ovary

Spleen

Uterus

---

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 82

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 92

**DOSE:** 1500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 888001

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Ovary

Spleen

Uterus

---

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 83

TRT#: 6

SEX: Female

DAY ON TEST: 92

DOSE: 1500 PPM

DISP: Terminal Sacrifice

HISTO: 888002

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Uterus

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Note: TUBULES DILATED : FACT OR ARTEFACT

Liver

Cytoplasmic Alteration

Mild

Note: SINGLE CELL NECROSIS

Spleen

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 84

TRT#: 6

SEX: Female

DAY ON TEST: 92

DOSE: 1500 PPM

DISP: Terminal Sacrifice

HISTO: 888003

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Clitoral Gland

Ovary

Spleen

Uterus

**OBSERVATIONS**

Clitoral Gl

Note: TGL #2: EXCESS SECRETION

Kidney

Cortex

Mineralization

Minimal

Note: NUCLEI OF MANY TUBULAR CELLS ARE PYKNOTIC

Liver

Cytoplasmic Alteration

Minimal

Lymph Node

Pancreatic

Infiltration Cellular

Histiocyte, Mild

[ Infiltration Cellular TGLS = 1-9 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 85

TRT#: 6

SEX: Female

DAY ON TEST: 92

DOSE: 1500 PPM

DISP: Terminal Sacrifice

HISTO: 888004

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Spleen

Uterus

**MISSING**

Ovary

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 86

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 1500 PPM

DISP: Terminal Sacrifice

HISTO: 888005

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Liver

Spleen

Uterus

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Liver

Note: SINGLE CELL NECROSIS

Ovary

Cyst

Note: [ CYST ] TGLs = 1-7

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 87

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 93

**DOSE:** 1500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 888006

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Spleen

Uterus

---

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Moderate

Ovary

Cyst

[ Cyst TGLS = 1-7 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 88

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 1500 PPM

DISP: Terminal Sacrifice

HISTO: 888007

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Spleen

Uterus

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 89

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 93

**DOSE:** 1500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 888008

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Spleen

Uterus

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

Ovary

Cyst

[ Cyst TGLS = 1-7 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

---

ANIMAL ID: 90

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 1500 PPM

DISP: Terminal Sacrifice

HISTO: 888009

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Spleen

Uterus

---

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

Ovary

Pigmentation

Minimal

[ Cyst TGLS = 1-7 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 91

TRT#: 8

SEX: Female

DAY ON TEST: 92

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 888010

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Vagina

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Note: PROTEIN CASTS IN 3-4 TUBULES

Liver

Cytoplasmic Alteration

Mild

Degeneration

Minimal

Pigmentation

Minimal

Note: SINGLE CELL NECROSIS

Spleen

Pigmentation

Mild

Uterus

Atrophy

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 92

TRT#: 8

SEX: Female

DAY ON TEST: 92

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 888011

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Uterus

Vagina

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Note: PROTEIN CASTS IN TWO TUBULES

Liver

Cytoplasmic Alteration

Mild

Degeneration

Mild

Pigmentation

Minimal

Note: SINGLE CELL NECROSIS

Spleen

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 93

TRT#: 8

SEX: Female

DAY ON TEST: 92

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 888012

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Uterus

Vagina

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Mild

Degeneration

Minimal

Pigmentation

Minimal

Note: SINGLE CELL NECROSIS

Spleen

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 94

TRT#: 8

SEX: Female

DAY ON TEST: 92

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 888013

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Uterus

Vagina

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Liver

Cytoplasmic Alteration

Mild

Degeneration

Mild

Pigmentation

Mild

Note: SINGLE CELL NECROSIS

Spleen

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 95

TRT#: 8

SEX: Female

DAY ON TEST: 92

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 888014

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Uterus

Vagina

**OBSERVATIONS**

Intest Small

Note: TGL #2: LYMPHOID TISSUE IS NORMAL

INTEST SMAL TGL#2. LYMPHOID TISSUE IS NORMAL

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Moderate

Degeneration

Mild

Pigmentation

Minimal

Note: SINGLE CELL NECROSIS

Note: TGL 3: NO FOCUS DISCERNIBLE

Spleen

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 96

TRT#: 8

SEX: Female

DAY ON TEST: 93

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 888015

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Uterus

Vagina

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Mild

Degeneration

Minimal

Pigmentation

Minimal

Spleen

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 97

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 93

**DOSE:** 3000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 888016

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Clitoral Gland

Kidney

Ovary

Uterus

Vagina

---

**OBSERVATIONS**

Liver

Cytoplasmic Alteration

Mild

Degeneration

Minimal

Pigmentation

Mild

Spleen

Pigmentation

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 98

TRT#: 8

SEX: Female

DAY ON TEST: 93

DOSE: 3000 PPM

DISP: Terminal Sacrifice

HISTO: 888017

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Uterus

Vagina

**OBSERVATIONS**

Kidney

Renal Tubule

Regeneration

Minimal

Note: PROTEIN CASTS IN 1-2 TUBULES

Liver

Cytoplasmic Alteration

Mild

Degeneration

Minimal

Hepatodiaphragmatic Nodule

Pigmentation

Minimal

Note: SINGLE CELL NECROSIS

Note: [ HDN ] TGLs = 1-6

Spleen

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 99

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 93

**DOSE:** 3000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 888018

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Kidney

Ovary

Spleen

Uterus

Vagina

---

**OBSERVATIONS**

Liver

Cytoplasmic Alteration

Moderate

Degeneration

Minimal

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

---

**ANIMAL ID:** 100

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 93

**DOSE:** 3000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 888019

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Bone Marrow

Kidney

Ovary

Uterus

Vagina

---

**OBSERVATIONS**

Liver

Cytoplasmic Alteration

Mild

Degeneration

Minimal

Pigmentation

Minimal

Spleen

Pigmentation

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 101

TRT#: 10

SEX: Female

DAY ON TEST: 92

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 888020

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Vagina

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Note: PIGMENT AND INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Moderate

Degeneration

Minimal

Pigmentation

Mild

Note: DEGENERATION OF CELLS IN CENTRILOBULAR

Note: ZONE AND SINGLE CELL NECROSIS

Spleen

Pigmentation

Mild

Uterus

Atrophy

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 102

TRT#: 10

SEX: Female

DAY ON TEST: 92

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 888021

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Vagina

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Note: A FEW INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Moderate

Degeneration

Minimal

Pigmentation

Mild

Note: PIGMENT IN ENDOTHELIAL CELLS AND SINGLE

Note: SINGLE CELL NECROSIS

Spleen

Pigmentation

Mild

Uterus

Atrophy

Minimal

[ Atrophy TGLS = 1-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 103

TRT#: 10

SEX: Female

DAY ON TEST: 92

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 888022

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Ovary

Vagina

**OBSERVATIONS**

Bone Marrow

Hyperplasia

Mild

Kidney

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Moderate

Degeneration

Mild

Pigmentation

Mild

Note: ZONE, PIGMENT IN ENDOTHELIAL CELLS, AND

Note: SINGLE CELL NECROSIS

Note: DEGENERATION OF CELLS IN CENTRIOBULAR

Spleen

Congestion

Marked

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Mild

Note: CYST IN SECTION #3.1

[ Congestion TGLS = 2-3+3.1 ]

Uterus

Atrophy

Minimal

[ Atrophy TGLS = 1-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 104

TRT#: 10

SEX: Female

DAY ON TEST: 92

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 888023

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Vagina

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Moderate

Degeneration

Minimal

Pigmentation

Mild

Note: SINGLE CELL NECROSIS

Note: ZONE, PIGMENT IN ENDOTHELIAL CELLS , and

Note: DEGENERATION OF CELLS IN CENTRIOBULAR

Spleen

Pigmentation

Mild

Uterus

Atrophy

Minimal

Note: [ ATROPHY ] TGLs = 1-7

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 105

TRT#: 10

SEX: Female

DAY ON TEST: 92

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 888024

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Clitoral Gland

Ovary

Vagina

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Moderate

Degeneration

Minimal

Pigmentation

Mild

Note: DEGENERATION OF CENTRIOBULAR CELLS,

Note: PIGMENT, AND SINGLE CELL NECROSIS

Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Mild

Uterus

Atrophy

Minimal

[ Atrophy TGLS = 1-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 106

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 888025

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Uterus

Vagina

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Moderate

Degeneration

Minimal

Pigmentation

Mild

Note: PIGMENT IN ENDOTHELIAL CELLS AND

Note: SINGLE CELL NECROSIS

Spleen

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 107

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 882026

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Ovary

Vagina

**OBSERVATIONS**

Bone Marrow

Hyperplasia

Mild

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Note: INFLAMMATORY CELLS IN INTERSTITIUM

Liver

Cytoplasmic Alteration

Moderate

Degeneration

Minimal

Hepatodiaphragmatic Nodule

Pigmentation

Minimal

Note: [ HDN ] TGLs = 1-6

Note: PIGMENT IN ENDOTHELIAL CELLS AND SINGLE CELL NECROSIS

Spleen

Pigmentation

Mild

Uterus

Atrophy

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 108

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 888027

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Ovary

Vagina

**OBSERVATIONS**

Bone Marrow

Hyperplasia

Mild

Kidney

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Moderate

Degeneration

Minimal

Pigmentation

Mild

Note: PIGMENT IN ENDOTHELIAL CELLS AND SINGLE CELL NECROSIS

Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Mild

Uterus

Atrophy

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 109

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 888028

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone Marrow

Ovary

Vagina

**OBSERVATIONS**

Kidney

Cortex

Mineralization

Minimal

Renal Tubule

Regeneration

Minimal

Liver

Cytoplasmic Alteration

Moderate

Degeneration

Mild

Pigmentation

Mild

Note: PIGMENT IN ENDOTHELIAL CELLS AND SINGLE CELL NECROSIS

Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Mild

Uterus

Atrophy

Mild

[ Atrophy TGLS = 1-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 110

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 4500 PPM

DISP: Terminal Sacrifice

HISTO: 888029

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Kidney

Ovary

Vagina

**OBSERVATIONS**

Bone Marrow

Hyperplasia

Mild

Liver

Cytoplasmic Alteration

Moderate

Degeneration

Mild

Pigmentation

Mild

Note: PIGMENT IN ENDOTHELIAL CELLS AND SINGLE CELL NECROSIS

Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Mild

Uterus

Atrophy

Mild

[ Atrophy TGLS = 1-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 111

TRT#: 12

SEX: Female

DAY ON TEST: 92

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 888030

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - 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
Skeletal Muscle	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Vagina			

MISSING

Intestine Large - Colon

OBSERVATIONS

Kidney	Cortex	Mineralization	Minimal
	Renal Tubule	Regeneration	Minimal
Note: CLUSTERS OF INFLAMMATORY CELLS IN INTERSTITIUM			
Note: AND PIGMENT IN SOME TUBULES. THICKENING OF			
Note: BASEMENT MEMBARANE IN SUCH AREAS.			
Liver		Cytoplasmic Alteration	Moderate
		Degeneration	Minimal
		Pigmentation	Mild
Note: PIGMENT IN SOME ENDOTHELIAL CELLS			
Note: DEGENERATION OF CELLS IN CENTRILOBULAR			
Note: ZONE ANS SINGLE CELL NECROSIS			
Nose			
Note: BLOOD IN NASOLACRIMAL DUCT			
Spleen		Hematopoietic Cell Proliferation	Minimal
Note: CONGESTION (3-4+) AND PIGMENT			
Uterus		Atrophy	Mild
Note: [ ATROPHY ] TGLs = 1-7			
Vagina			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

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**ANIMAL ID:** 111

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 92

**DOSE:** 6000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 888030

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: MUCINOUS EPITHELIUM

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 112

TRT#: 12

SEX: Female

DAY ON TEST: 92

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 888031

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Clitoral Gland	Esophagus	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skeletal Muscle
Skin	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Vagina

**PRESENT BUT NOT EXAMINED**

Heart

**OBSERVATIONS**

Bone Marrow		Hyperplasia	Mild
Kidney	Cortex	Mineralization	Minimal
	Renal Tubule	Regeneration	Minimal
Note: INFLAMMATORY CELLS AND PIGMENT IN INTERSTITIUM			
Liver		Cytoplasmic Alteration	Moderate
		Degeneration	Minimal
		Pigmentation	Mild
Note: TGL1 NO FOCUS			
Note: PIGMENT IN ENDOTHELIAL CELLS.			
Note: DEGENERATION OF CELLS IN CENTRIOBULAR			
Note: ZONE AND SINGLE CELL NECROSIS			
Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
Note: CONGESTION (2-3+) AND PIGMENT			
Uterus		Atrophy	Mild
Vagina			
Note: MUCINOUS EPITHELIUM			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 113

TRT#: 12

SEX: Female

DAY ON TEST: 92

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 888032

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Lung	Lymph Node - Mandibular
Lymph Node - Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skeletal Muscle	Skin
Stomach - Forestomach	Stomach - Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Vagina	

MISSING

Mammary Gland

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Intest Small			
Note: LYMPHOID TISSUE IN ILEUM			
Kidney	Cortex	Mineralization	Minimal
	Renal Tubule	Regeneration	Minimal
Note: INFLAMMATORY CELLS AND PIGMENT IN INTERSTITIUM			
Liver		Cytoplasmic Alteration	Moderate
		Degeneration	Minimal
		Pigmentation	Mild
Note: PIGMENT IN ENDOTHELIAL CELLS			
Note: DEGENERATION AND PIGMENT IN ENDOTHELIAL			
Note: CELLS AND SINGLE CELL NECROSIS			
Pituitary Gland	Pars Distalis	Cyst	
Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
Note: CONGESTION (2-3+) AND PIGMENT			
Uterus		Atrophy	Mild
Note: [ ATROPHY ] TGLs = 1-7			
Vagina			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05197-03

**Test Type:** 90-DAY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2-Butoxyethanol (ethylene glycol monobutyl ether)  
**CAS Number:** 111-76-2

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:39:41

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

**Lab:** TSI MASON

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**ANIMAL ID:** 113

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 92

**DOSE:** 6000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 888032

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: MUCINOUS EPITHELIUM

PRIMARY CAUSE OF DEATH

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-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 114

TRT#: 12

SEX: Female

DAY ON TEST: 92

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 888033

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Kidney
Lung	Mammary Gland	Nose	Ovary
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Skeletal Muscle	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Vagina			

OBSERVATIONS

Liver		Cytoplasmic Alteration Degeneration Pigmentation	Moderate Minimal Mild
Note: PIGMENT IN ENDOTHELIAL CELLS			
Note: SINGLE CELL NECROSIS			
Note: GRANULOMATOUS INFLAMMATION			
Lymph Node	Mandibular Mandibular Mesenteric Pancreatic	Angiectasis Infiltration Cellular Infiltration Cellular Infiltration Cellular	Mild Histiocyte, Mild Histiocyte, Mild Histiocyte, Mild
[ Infiltration Cellular TGLs = 2-9,3-9.1 ]			
Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Mild
Note: CONGESTION (2-3+) AND PIGMENT			
Uterus		Atrophy	Mild
Note: [ ATROPHY ] TGLs = 1-7			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 115

TRT#: 12

SEX: Female

DAY ON TEST: 92

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 888034

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Kidney
Lung	Lymph Node - Mandibular	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skeletal Muscle	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Vagina		

MISSING

Lymph Node - Mesenteric

OBSERVATIONS

Kidney		
Note: A FEW INFLAMMATORY CELLS IN INTERSTITIUM		
Liver	Cytoplasmic Alteration	Moderate
	Degeneration	Minimal
	Pigmentation	Minimal
Note: SINGLE CELL NECROSIS		
Note: PIGMENT IN ENDOTHELIAL CELLS		
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild
Note: CONGESTION (2-3+) AND PIGMENT		
Uterus	Atrophy	Mild
Note: [ ATROPHY     ] TGLs = 1-7		
Vagina		
Note: MUCINOUS EPITHELIUM		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 116

TRT#: 12

SEX: Female

DAY ON TEST: 93

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 888035

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Brain	Clitoral Gland
Esophagus	Heart	Intestine Large - Cecum	Intestine Large - Colon
Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum	Intestine Small - Jejunum
Islets, Pancreatic	Lung	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skeletal Muscle
Skin	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Vagina
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**OBSERVATIONS**

Intest Small			
Note: LYMPHOID TISSUE IN ILEUM			
Kidney	Cortex	Mineralization	Minimal
	Renal Tubule	Regeneration	Minimal
Note: A FEW INFLAMMATORY CELLS AND PIGMENT IN INTERSTITIUM			
Liver		Cytoplasmic Alteration	Moderate
		Degeneration	Mild
		Pigmentation	Mild
Note: PIGMENT IN ENDOTHELIAL CELLS			
Note: SINGLE CELL NECROSIS			
Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
Note: CONGESTION (3-4+) AND PIGMENT			
Uterus		Atrophy	Mild
Note: [ ATROPHY ] TGLs = 1-7			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05197-03

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: 2-Butoxyethanol (ethylene glycol monobutyl ether)  
CAS Number: 111-76-2

Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 117

TRT#: 12

DOSE: 6000 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 93

HISTO: 888036

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large - Cecum
Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum	Intestine Small - Ileum
Intestine Small - Jejunum	Islets, Pancreatic	Lymph Node - Mandibular	Lymph Node - Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skeletal Muscle
Skin	Stomach - Forestomach	Stomach - Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Vagina

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Intest Small			
Note: LYMPHOID TISSUE IN ILEUM			
Kidney	Cortex	Mineralization	Minimal
Note: A FEW INFLAMMATORY CELLS IN INTERSTITIUM			
Liver		Cytoplasmic Alteration	Moderate
		Degeneration	Minimal
		Pigmentation	Mild
Note: PIGMENT IN ENDOTHELIAL CELLS AND			
Note: SINGLE CELL NECROSIS			
Lung		Infiltration Cellular	Histiocyte, Mild
Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
Note: CONGESTION (3-4+) AND PIGMENT			
Uterus		Atrophy	Mild
Note: [ ATROPHY ] TGLs = 1-7			

PRIMARY CAUSE OF DEATH

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ANIMAL ID: 118

TRT#: 12

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DISP: Terminal Sacrifice

HISTO: 888037

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lymph Node - Mandibular
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skeletal Muscle	Skin	Stomach - Forestomach
Stomach - Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus	Vagina	

MISSING

Lymph Node - Mesenteric	Mammary Gland
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OBSERVATIONS

Intest Small			
Note: LYMPHOID TISSUE IN ILEUM			
Kidney	Cortex	Mineralization	Minimal
Liver		Cytoplasmic Alteration	Moderate
		Degeneration	Minimal
		Pigmentation	Mild
Note: SINGLE CELL NECROSIS			
Note: PIGMENT IN ENDOTHELIAL CELLS			
Lung		Infiltration Cellular	Histiocyte, Minimal
Ovary		Cyst	
[ Cyst TGLS = 1-7 ]			
Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
Note: CONGESTION (3-4+) AND PIGMENT			

PRIMARY CAUSE OF DEATH

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ANIMAL ID: 119

TRT#: 12

SEX: Female

DAY ON TEST: 93

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 888038

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Gland - Cortex	Adrenal Gland - Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large - Cecum	Intestine Large - Colon	Intestine Large - Rectum	Intestine Small - Duodenum
Intestine Small - Ileum	Intestine Small - Jejunum	Islets, Pancreatic	Lymph Node - Mandibular
Lymph Node - Mesenteric	Mammary Gland	Nose	Ovary
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Skeletal Muscle	Skin	Stomach - Forestomach	Stomach - Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Vagina			

**OBSERVATIONS**

Intest Small Note: LYMPHOID TISSUE IN ILEUM			
Kidney Note: A FEW INFLAMMATORY CELLS AND PIGMENT IN INTERSTITIUM	Cortex	Mineralization	Minimal
Liver  Note: NO FOCUS. Note: PIGMENT IN ENDOTHELIAL CELLS Note: SINGLE CELL NECROSIS		Cytoplasmic Alteration Degeneration Pigmentation	Moderate Minimal Mild
Lung		Infiltration Cellular	Histiocyte, Mild
Lymph Node Note: MANDIBULAR LN NORMAL			
Nose Note: BLOOD IN NASOLACRIMAL DUCT			
Pancreas Note: FOCUS IS A PANCREATIC LYMPH NODE.			
Spleen  Note: CONGESTION (2-3+) AND PIGMENT		Hematopoietic Cell Proliferation Pigmentation	Minimal Mild

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

**Lab:** TSI MASON

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**ANIMAL ID:** 119

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 93

**DOSE:** 6000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 888038

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Uterus

Atrophy

Mild

Note: [ ATROPHY ] TGLs = 2-7

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PRIMARY CAUSE OF DEATH

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Species/Strain: Rat/F 344/N

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Date Report Requested: 10/21/2014

Time Report Requested: 18:39:41

First Dose M/F: NA / NA

Lab: TSI MASON

ANIMAL ID: 120

TRT#: 12

SEX: Female

DAY ON TEST: 93

DOSE: 6000 PPM

DISP: Terminal Sacrifice

HISTO: 888039

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Intest Small			
Note: LYMPHOID TISSUE IN ILEUM			
Kidney	Cortex	Mineralization	Minimal
	Renal Tubule	Regeneration	Minimal
Note: A FEW INFLAMMATORY CELLS IN INTERSTITIUM			
Liver		Cytoplasmic Alteration	Moderate
		Degeneration	Minimal
		Pigmentation	Mild
Note: PIGMENT IN ENDOTHELIAL CELLS			
Note: SINGLE CELL NECROSIS			
Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
Note: CONGESTION (2-3+) AND PIGMENT			

PRIMARY CAUSE OF DEATH -

\*\* END OF REPORT \*\*

\* PROTOCOL REQUIRED TISSUE