

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:03  
**First Dose M/F:** NA / NA  
**Lab:** IIT

<b>C Number:</b>	C61052B
<b>Lock Date:</b>	08/20/1992
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Both
<b>PWG Approval Date</b>	10/07/1993

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 1

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02658

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
		Necrosis	Minimal
[ Hepatocellular Adenoma TGLS = 2-12 ]			
Preputial Gland		Dilatation	Marked
[ Dilatation TGLS = 1-14 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 1 <b>DOSE:</b> CONTROL	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 512 <b>HISTO:</b> 88-02659
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea			

MISSING

* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Hydronephrosis	Minimal
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 1-5,5.1 ]			
Penis		Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 3-12 ]			
* Prostate		Inflammation	Chronic Active, Mild
* Skin	Prepuce	Inflammation	Chronic Active, Moderate
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Thymus		Atrophy	Minimal
* Urinary Bladder		Dilatation	Moderate
		Inflammation	Chronic Active, Marked
[ Dilatation TGLS = 2-8 ]			
[ Inflammation TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 1 <b>DOSE:</b> CONTROL	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 726 <b>HISTO:</b> 88-02660
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Marked
* Brain		Hypertrophy	Focal, Mild
* Kidney		Mineralization	Mild
		Infiltration Cellular	Lymphocyte, Minimal
		Metaplasia	Osseous, Minimal
	Renal Tubule	Regeneration	Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

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<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 1 <b>DOSE:</b> CONTROL	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 725 <b>HISTO:</b> 88-02661
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ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lymph Node, Mandibular
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

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**MISSING**

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-12 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 3-6,6.1 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
Preputial Gland		Dilatation	Marked
[ Dilatation TGLS = 1-13 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 5

TRT#: 1

SEX: Male

DAY ON TEST: 725

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02662

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	Tooth	* Trachea	* Urinary Bladder

MISSING

* Mammary Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy Mineralization	Minimal Focal, Minimal Mild
* Brain		Regeneration	Mild
* Kidney	Renal Tubule	Syncytial Alteration	Minimal
* Liver		Degeneration	Hyaline, Minimal
* Nose	Respirat Epith Respirat Epith	Hyperplasia Inflammation	Minimal Chronic, Minimal
* Salivary Glands		Hematopoietic Cell Proliferation	Minimal
* Spleen			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 1 <b>DOSE:</b> CONTROL	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 725 <b>HISTO:</b> 88-02663
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Mammary Gland	* Pituitary Gland
* Thymus			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Liver		Hepatocellular Carcinoma	Multiple
		Infarct	Marked
[ Hepatocellular Carcinoma TGLS = 1-12,13,14,2-15,3-17 ]			
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
[ Hepatocellular Carcinoma TGLS = 4-6 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Adenoma	
	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 455
	<b>DOSE:</b> CONTROL	<b>DISP:</b> Natural Death	<b>HISTO:</b> 88-02664

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Bone	* Bone Marrow	* Brain	* Epididymis
* Esophagus	* Heart	* Intestine Large, Rectum	* Intestine Small, Ileum
* Kidney	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

\* Mammary Gland

**AUTO PRECLUDES DIAG.**

* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Jejunum			

**INSUFFICIENT TISSUE**

* Adrenal Cortex	* Adrenal Medulla
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**OBSERVATIONS**

* Liver	Hepatocellular Adenoma	
	Hepatocellular Carcinoma	
[ Hepatocellular Adenoma TGLS = 1-12 ]		
[ Hepatocellular Carcinoma TGLS = 2-5 ]		
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 8

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02665

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney	Renal Tubule	Regeneration	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 9

TRT#: 1

SEX: Male

DAY ON TEST: 529

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02666

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Intestine Small, Jejunum	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Small, Duodenum	* Intestine Small, Ileum
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OBSERVATIONS

* Kidney [ Nephropathy TGLS = 2-8,8.1 ]		Nephropathy	Marked
* Liver [ Hepatocellular Carcinoma TGLS = 3-5,5.1 ]		Hepatocellular Carcinoma Syncytial Alteration	Minimal
* Lung Note: HYPOSTATIC CONGESTION - NO LESION.			
* Nose	Respirat Epith	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Hemosiderin, Minimal
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02667

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy Mineralization	Mild Focal, Minimal Minimal
* Brain		Infiltration Cellular	Lymphocyte, Minimal
* Kidney		Hepatocellular Carcinoma Syncytial Alteration	Minimal
* Liver			
[ Hepatocellular Carcinoma TGLS = 2-12 ]			
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith	Hyperplasia Dilatation	Minimal Marked
Preputial Gland			
[ Dilatation TGLS = 1-13 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Seminal Vesicle		Dilatation	Moderate
[ Dilatation TGLS = 3-9 ]			
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 11

TRT#: 1

SEX: Male

DAY ON TEST: 725

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02668

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Medulla  
\* Esophagus  
\* Intestine Large, Colon  
\* Intestine Small, Jejunum  
\* Lymph Node, Mediastinal  
\* Prostate  
\* Stomach, Forestomach  
\* Thyroid Gland

\* Bone  
\* Gallbladder  
\* Intestine Large, Rectum  
\* Kidney  
\* Nose  
\* Salivary Glands  
\* Stomach, Glandular  
\* Trachea

\* Bone Marrow  
\* Heart  
\* Intestine Small, Duodenum  
\* Larynx  
\* Pancreas  
\* Seminal Vesicle  
\* Testes  
\* Urinary Bladder

\* Epididymis  
\* Intestine Large, Cecum  
\* Intestine Small, Ileum  
\* Lung  
\* Pituitary Gland  
\* Skin  
\* Thymus

MISSING

\* Lymph Node, Bronchial

\* Lymph Node, Mandibular

\* Mammary Gland

\* Parathyroid Gland

OBSERVATIONS

\* Adrenal Cortex

Subcapsular

Hyperplasia

Minimal

\* Brain

Hypertrophy

Focal, Mild

\* Liver

Mineralization

Moderate

\* Lymph Node, Mesenteric

Clear Cell Focus

Preputial Gland

Hyperplasia

Lymphoid, Minimal

[ Dilatation TGLS = 2-13 ]

Dilatation

Mild

\* Spleen

Hematopoietic Cell Proliferation

Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 12

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02669

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Mammary Gland	* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
Preputial Gland		Dilatation	Moderate
		Inflammation	Chronic Active, Marked
[ Dilatation TGLS = 2-13 ]			
[ Inflammation TGLS = 2-13 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 13

TRT#: 1

SEX: Male

DAY ON TEST: 725

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02670

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Moderate
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Syncytial Alteration	Mild
* Lung		Alveolar/Bronchiolar Adenoma	
* Lymph Node, Mesenteric		Hemorrhage	Mild
* Nose	Respirat Epith	Hyperplasia	Minimal
* Seminal Vesicle		Dilatation	Mild
[ Dilatation TGLS = 1-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 14

TRT#: 1

SEX: Male

DAY ON TEST: 618

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02671

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                        |                          |                           |                             |
|------------------------|--------------------------|---------------------------|-----------------------------|
| * Bone                 | * Brain                  | * Esophagus               | * Gallbladder               |
| * Heart                | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Nose                 | * Pituitary Gland        | * Prostate                | * Salivary Glands           |
| * Stomach, Forestomach | * Stomach, Glandular     | * Thymus                  | * Thyroid Gland             |
| * Trachea              | * Urinary Bladder        |                           |                             |

MISSING

- |                 |                     |
|-----------------|---------------------|
| * Mammary Gland | * Parathyroid Gland |
|-----------------|---------------------|

AUTO PRECLUDES DIAG.

- |                          |                          |                            |
|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

- |                           |   |                          |        |
|---------------------------|---|--------------------------|--------|
| * Adrenal Cortex          |   | Lymphoma Malignant Mixed |        |
| * Adrenal Medulla         |   | Lymphoma Malignant Mixed |        |
| * Bone Marrow             |   | Lymphoma Malignant Mixed |        |
| * Epididymis              |   | Lymphoma Malignant Mixed |        |
| * Kidney                  |   | Lymphoma Malignant Mixed |        |
| * Larynx                  |   | Lymphoma Malignant Mixed |        |
| * Liver                   |   | Lymphoma Malignant Mixed |        |
| * Lung                    |   | Lymphoma Malignant Mixed |        |
| Lymph Node                | Lumbar  | Lymphoma Malignant Mixed |        |
|                           | Renal   | Lymphoma Malignant Mixed |        |
|                           | [ Lymphoma Malignant Mixed TGLS = 6-15,5-14,7-7,4-3,3.1 ] |                          |        |
|                           | [ Lymphoma Malignant Mixed TGLS = 6-15,5-14,7-7,4-3,3.1 ] |                          |        |
| * Lymph Node, Mandibular  |   | Lymphoma Malignant Mixed |        |
|                           | [ Lymphoma Malignant Mixed TGLS = 6-15,5-14,7-7,4-3,3.1 ] |                          |        |
| * Lymph Node, Mediastinal |   | Lymphoma Malignant Mixed |        |
|                           | [ Lymphoma Malignant Mixed TGLS = 6-15,5-14,7-7,4-3,3.1 ] |                          |        |
| * Lymph Node, Mesenteric  |   | Lymphoma Malignant Mixed |        |
|                           | [ Lymphoma Malignant Mixed TGLS = 6-15,5-14,7-7,4-3,3.1 ] |                          |        |
| * Pancreas                |   | Lymphoma Malignant Mixed |        |
| Preputial Gland           |   | Dilatation               | Marked |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:03  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 14	<b>TRT#:</b> 1 <b>DOSE:</b> CONTROL	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 618 <b>HISTO:</b> 88-02671
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Dilatation TGLS = 1-12 ]			
* Seminal Vesicle		Lymphoma Malignant Mixed	
* Skin	Subcut Tiss	Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 2-13 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Lymphoma Malignant Mixed	
		Pigmentation	Hemosiderin, Mild
[ Lymphoma Malignant Mixed TGLS = 3-5 ]			
* Testes		Lymphoma Malignant Mixed	

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 15

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02672

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland	* Prostate
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Mild
	Renal Tubule	Regeneration	Minimal
* Liver		Hepatocellular Adenoma	Multiple
		Syncytial Alteration	Minimal
		[ Hepatocellular Adenoma TGLS = 3-13,2-12 ]	
* Nose	Respirat Epith	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Moderate
		[ Dilatation TGLS = 1-9 ]	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 16

TRT#: 1

SEX: Male

DAY ON TEST: 725

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02673

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Prostate	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
Harderian Gland		Adenoma	
[ Adenoma TGLS = 3-13 ]			
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
	Renal Tubule	Regeneration	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Mild
* Salivary Glands		Inflammation	Chronic, Mild
* Seminal Vesicle		Dilatation	Moderate
[ Dilatation TGLS = 2-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 17

TRT#: 1

SEX: Male

DAY ON TEST: 725

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02674

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Brain		Mineralization	Mild
* Liver		Basophilic Focus	
	Centrilobular	Fatty Change	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-12 ]		
Preputial Gland		Dilatation	Marked
	[ Dilatation TGLS = 1-13 ]		
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 18

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02675

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Gallbladder	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-12 ]			
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 19

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02676

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Brain		Mineralization	Mild
* Epididymis		Inflammation	Chronic Active, Mild
Harderian Gland		Adenoma	
[ Adenoma TGLS = 5-15 ]			
Islets, Pancreatic		Hyperplasia	Focal, Mild
* Liver		Eosinophilic Focus	
		Hemangiosarcoma	
[ Eosinophilic Focus TGLS = 3-14 ]		Syncytial Alteration	Mild
[ Hemangiosarcoma TGLS = 4-5 ]			
* Lung		Inflammation	Chronic Active, Minimal
* Lymph Node, Mesenteric		Hemorrhage	Mild
Preputial Gland		Dilatation	Moderate
		Inflammation	Chronic Active, Mild
[ Inflammation TGLS = 2-13 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:03  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 19

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 88-02676

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thyroid Gland

Follicular Cel

Hyperplasia

Focal, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 20

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02677

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
		Hypertrophy	Focal, Mild
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
	[ Hepatocellular Adenoma TGLS = 2-12 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 3-6 ]		
* Nose		Inflammation	Chronic Active, Minimal
Preputial Gland		Dilatation	Marked
	[ Dilatation TGLS = 1-13 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02678

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Kidney		Cyst	Mild
		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
	[ Hepatocellular Adenoma TGLS = 1-12 ]		
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Pancreas		Inflammation	Chronic, Minimal
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 22

TRT#: 1

SEX: Male

DAY ON TEST: 725

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02679

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Medulla

\* Bone

\* Bone Marrow

\* Epididymis

\* Esophagus

\* Gallbladder

\* Heart

\* Intestine Large, Cecum

\* Intestine Large, Colon

\* Intestine Large, Rectum

\* Intestine Small, Duodenum

\* Intestine Small, Ileum

\* Intestine Small, Jejunum

\* Kidney

\* Larynx

\* Lung

\* Lymph Node, Mandibular

\* Lymph Node, Mesenteric

\* Nose

\* Pancreas

\* Parathyroid Gland

\* Pituitary Gland

\* Prostate

\* Salivary Glands

\* Seminal Vesicle

\* Skin

\* Stomach, Forestomach

\* Stomach, Glandular

\* Testes

\* Thymus

\* Thyroid Gland

\* Trachea

\* Urinary Bladder

MISSING

\* Lymph Node, Bronchial

\* Lymph Node, Mediastinal

\* Mammary Gland

OBSERVATIONS

\* Adrenal Cortex

Hypertrophy

Focal, Mild

\* Brain

Mineralization

Mild

\* Liver

Hepatocellular Adenoma

Syncytial Alteration

Minimal

[ Hepatocellular Adenoma TGLS = 1-5 ]

\* Spleen

Hematopoietic Cell Proliferation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02680

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Brain		Mineralization	Moderate
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
	Renal Tubule	Regeneration	Minimal
* Nose	Respirat Epith	Hyperplasia	Minimal
Preputial Gland		Dilatation	Marked
		Inflammation	Chronic Active, Minimal
[ Dilatation TGLS = 1-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 24

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02681

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Marked
* Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Focal, Moderate
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Chronic Active, Minimal
Preputial Gland		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 25

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02682

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Mammary Gland	* Parathyroid Gland
--------------------------	-----------------	---------------------

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
Harderian Gland		Adenoma	
[ Adenoma TGLS = 4-16 ]			
Islets, Pancreatic		Adenoma	
* Kidney	Renal Tubule	Regeneration	Minimal
* Liver		Basophilic Focus	
		Hepatocellular Adenoma	Multiple
		Syncytial Alteration	Mild
[ Hepatocellular Adenoma TGLS = 3-12 ]			
* Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Chronic Active, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Testes	Seminif Tub	Degeneration	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 26

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02683

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Cortex
- \* Brain
- \* Heart
- \* Intestine Small, Duodenum
- \* Lung
- \* Lymph Node, Mesenteric
- \* Prostate
- \* Stomach, Glandular
- \* Urinary Bladder

- \* Adrenal Medulla
- \* Epididymis
- \* Intestine Large, Cecum
- \* Intestine Small, Ileum
- \* Lymph Node, Bronchial
- \* Nose
- \* Seminal Vesicle
- \* Testes

- \* Bone
- \* Esophagus
- \* Intestine Large, Colon
- \* Intestine Small, Jejunum
- \* Lymph Node, Mandibular
- \* Pancreas
- \* Skin
- \* Thymus

- \* Bone Marrow
- \* Gallbladder
- \* Intestine Large, Rectum
- \* Larynx
- \* Lymph Node, Mediastinal
- \* Pituitary Gland
- \* Stomach, Forestomach
- \* Trachea

MISSING

- \* Mammary Gland

- \* Parathyroid Gland

OBSERVATIONS

- \* Kidney
- \* Liver
- \* Salivary Glands
- \* Spleen
- \* Thyroid Gland

- Renal Tubule
- Follicular Cel

- Regeneration
- Clear Cell Focus
- Vacuolization Cytoplasmic
- Inflammation
- Hematopoietic Cell Proliferation
- Hyperplasia

- Minimal
- Minimal
- Chronic, Minimal
- Minimal
- Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 27

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02684

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Medulla

\* Bone

\* Bone Marrow

\* Epididymis

\* Esophagus

\* Gallbladder

\* Heart

\* Intestine Large, Cecum

\* Intestine Large, Colon

\* Intestine Large, Rectum

\* Intestine Small, Duodenum

\* Intestine Small, Ileum

\* Intestine Small, Jejunum

\* Kidney

\* Larynx

\* Lung

\* Lymph Node, Mediastinal

\* Lymph Node, Mesenteric

\* Nose

\* Pancreas

\* Parathyroid Gland

\* Pituitary Gland

\* Prostate

\* Seminal Vesicle

\* Skin

\* Stomach, Forestomach

\* Stomach, Glandular

\* Testes

\* Thymus

\* Thyroid Gland

\* Trachea

\* Urinary Bladder

MISSING

\* Lymph Node, Bronchial

\* Lymph Node, Mandibular

\* Mammary Gland

OBSERVATIONS

\* Adrenal Cortex

Subcapsular

Hyperplasia

Mild

\* Brain

Mineralization

Moderate

\* Liver

Syncytial Alteration

Mild

\* Salivary Glands

Inflammation

Chronic, Minimal

\* Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 28

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02685

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Syncytial Alteration	Minimal
* Nose		Inflammation	Chronic Active, Minimal
Preputial Gland		Dilatation	Marked
[ Dilatation TGLS = 1-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
Tooth		Odontoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 29

TRT#: 1

SEX: Male

DAY ON TEST: 61

DOSE: CONTROL

DISP: Accidentally Killed

HISTO: 88-002686

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Brain	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Bone	Maxilla	Callus	Moderate
	Maxilla	Fracture	
[ Fracture TGLS = 1-12 ]			
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Nose		Inflammation	Chronic Active, Mild
* Skin	Hair Follicle	Atrophy	Moderate
[ Atrophy TGLS = 6-13 ]			
* Thymus		Atrophy	Mild
[ Atrophy TGLS = 7-2.2 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 30

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02687

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lung
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Parathyroid Gland			

OBSERVATIONS

* Brain		Mineralization	Mild
Islets, Pancreatic		Adenoma	
* Kidney		Cyst	Mild
	Renal Tubule	Regeneration	Minimal
* Liver		Cytologic Alterations	Moderate
		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 31

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02688

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
Islets, Pancreatic		Hyperplasia	Focal, Mild
* Nose		Inflammation	Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin	Fat	Necrosis	Minimal
[ Necrosis TGLS = 1-12 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02689

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Moderate
* Liver		Cytologic Alterations	Mild
		Hepatocellular Adenoma	
	[ Hepatocellular Adenoma TGLS = 2-13 ]		
* Lung		Alveolar/Bronchiolar Carcinoma	
	[ Alveolar/Bronchiolar Carcinoma TGLS = 1-12 ]		
* Nose		Inflammation	Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 33

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02690

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

**MISSING**

* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Mammary Gland
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Nose	Olfactory Epi	Metaplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 34

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02691

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

* Mammary Gland	* Thymus
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Liver		Syncytial Alteration	Minimal
Preputial Gland		Dilatation	Moderate
[ Dilatation TGLS = 1-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 35

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02692

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Liver		Cytologic Alterations	Marked
[ Cytologic Alterations TGLS = 1-5 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 36

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02693

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea		

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	Multiple
		Hepatocellular Carcinoma	
	[ Hepatocellular Adenoma TGLS = 4-13,14 ]		
	[ Hepatocellular Carcinoma TGLS = 3-12 ]		
* Pancreas		Inflammation	Chronic, Minimal
Preputial Gland		Inflammation	Chronic Active, Moderate
	[ Inflammation TGLS = 2-16 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 725

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02694

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- \* Mammary Gland

OBSERVATIONS

- |                              |                                  |                      |
|------------------------------|----------------------------------|----------------------|
| * Brain                      | Mineralization                   | Mild                 |
| * Kidney                     | Infiltration Cellular            | Lymphocyte, Mild     |
| * Liver                      | Fatty Change                     | Focal, Mild          |
|                              | Syncytial Alteration             | Moderate             |
| [ Fatty Change TGLS = 2-12 ] |                                  |                      |
| * Salivary Glands            | Inflammation                     | Chronic, Mild        |
| * Spleen                     | Hemangioma                       |                      |
|                              | Hematopoietic Cell Proliferation | Minimal              |
|                              | Pigmentation                     | Hemosiderin, Minimal |
| * Urinary Bladder            | Dilatation                       | Moderate             |
| [ Dilatation TGLS = 1-8 ]    |                                  |                      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 38

TRT#: 1

SEX: Male

DAY ON TEST: 509

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02695

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Gallbladder	* Lymph Node, Mediastinal	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Intestine Large, Cecum
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OBSERVATIONS

* Adrenal Cortex	Capsule	Accessory Adrenal Cortical Nodule	
* Brain		Mineralization	Mild
* Kidney			
Note: HYPOSTATIC CONGESTION - NO LESION.			
* Liver		Hepatocellular Carcinoma	
		Infarct	Marked
	[ Hepatocellular Carcinoma TGLS = 3-5,5.1 ]		
	[ Infarct TGLS = 4-12 ]		
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
Note: HYPOSTATIC CONGESTION - NO LESION.			
* Prostate			
Note: DECREASED SECRETION.			
* Sem Ves			
Note: DECREASED SECRETION.			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thymus		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:03  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 38

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 509

**DOSE:** CONTROL

**DISP:** Natural Death

**HISTO:** 88-02695

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 39

TRT#: 1

SEX: Male

DAY ON TEST: 136

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 88-02696

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

* Lymph Node, Mandibular	Hyperplasia	Lymphoid, Mild
* Nose	Inflammation	Chronic Active, Minimal
* Spleen	Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 40

TRT#: 1

SEX: Male

DAY ON TEST: 604

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02697

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Small, Duodenum
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hemangiosarcoma	Multiple
[ Hemangiosarcoma TGLS = 1-3,3.1,5,5.1 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
* Lymph Node, Mediastinal		Hemorrhage	Moderate
* Nose	Respirat Epith	Hyperplasia	Minimal
	Olfactory Epi	Metaplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Marked
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH

-

Animal Note: ADRENAL-GROSS ADRENAL MASS IS EXTENSION OF LIVER TUMOR.

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 41

TRT#: 1

SEX: Male

DAY ON TEST: 725

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-0298

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Parathyroid Gland	* Pituitary Gland	Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Brain		Mineralization	Moderate
* Kidney		Hydronephrosis	Minimal
		Infiltration Cellular	Lymphocyte, Minimal
* Pancreas		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 42

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02699

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Mandibular	* Mammary Gland
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OBSERVATIONS

* Brain		Mineralization	Moderate
* Kidney	Renal Tubule	Hyperplasia	Focal, Mild
	Renal Tubule	Infiltration Cellular	Lymphocyte, Minimal
		Regeneration	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-6 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Minimal
* Urinary Bladder		Dilatation	Moderate
	[ Dilatation TGLS = 1-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 711

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02700

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Heart	* Intestine Large, Colon
* Intestine Large, Rectum	* Kidney	* Larynx	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

* Lymph Node, Bronchial	* Mammary Gland
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**AUTO PRECLUDES DIAG.**

* Gallbladder	* Intestine Large, Cecum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Stomach, Forestomach	* Stomach, Glandular

**OBSERVATIONS**

* Brain	Mineralization	Moderate
Harderian Gland	Adenoma	
[ Adenoma TGLS = 2-13 ]		
* Liver	Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-12 ]		
* Salivary Glands	Inflammation	Chronic, Minimal
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Hemosiderin, Minimal
* Thymus	Atrophy	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 44

TRT#: 1

SEX: Male

DAY ON TEST: 725

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02701

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea		

MISSING

* Mammary Gland	* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Brain	Mineralization	Mild
* Kidney	Infiltration Cellular	Lymphocyte, Minimal
* Liver	Basophilic Focus	
* Lung	Inflammation	Chronic Active, Minimal
* Salivary Glands	Inflammation	Chronic, Minimal
* Spleen	Hematopoietic Cell Proliferation	Minimal
* Urinary Bladder	Dilatation	Moderate

[ Dilatation TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 45

TRT#: 1

SEX: Male

DAY ON TEST: 563

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02702

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Heart	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular	* Mammary Gland	* Pituitary Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Large, Cecum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Lymph Node, Mesenteric			

OBSERVATIONS

* Brain		Mineralization	Minimal
* Kidney	Renal Tubule	Dilatation	Minimal
* Liver		Angiectasis	Moderate
		Hepatocellular Carcinoma	Multiple
	[ Hepatocellular Carcinoma TGLS = 3-5,4-12 ]		
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
	[ Hepatocellular Carcinoma TGLS = 1-6 ]		
* Nose	Respirat Epith	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 46

TRT#: 1

SEX: Male

DAY ON TEST: 570

DOSE: CONTROL

DISP: Accidentally Killed

HISTO: 88-02703

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Epididymis
* Esophagus	* Heart	* Intestine Large, Colon	* Kidney
* Larynx	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum		

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone	Maxilla	Fracture	
[ Fracture TGLS = 2-10 ]			
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 4-5 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thymus		Atrophy	Moderate
Tooth		Dysplasia	Moderate
Note: FRACTURE.			
[ Dysplasia TGLS = 3-10 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 47

TRT#: 1

SEX: Male

DAY ON TEST: 594

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02704

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Ileum	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea

MISSING

\* Lymph Node, Mandibular

AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Small, Duodenum	* Intestine Small, Jejunum
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Kidney		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 2-8 ]			
* Liver		Hepatocellular Carcinoma	Multiple
[ Hepatocellular Carcinoma TGLS = 1-5 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Moderate
* Urinary Bladder		Inflammation	Chronic Active, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 48

TRT#: 1

SEX: Male

DAY ON TEST: 726

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02705

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney	Renal Tubule	Regeneration	Minimal
* Liver	[ Hepatocellular Adenoma TGLS = 1-5,2-13 ]	Hepatocellular Adenoma	Multiple
* Lung	[ Alveolar/Bronchiolar Adenoma TGLS = 3-12 ]	Alveolar/Bronchiolar Adenoma	
* Nose	Respirat Epith	Hyperplasia	Minimal
	Olfactory Epi	Metaplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Testes	Seminif Tub	Degeneration	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 49

TRT#: 1

SEX: Male

DAY ON TEST: 479

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02706

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Ileum	* Kidney	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	

MISSING

* Mammary Gland	* Pituitary Gland
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AUTO PRECLUDES DIAG.

* Intestine Small, Duodenum	* Intestine Small, Jejunum
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OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-5 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
	Respirat Epith	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thymus		Atrophy	Marked
* Urinary Bladder		Dilatation	Moderate
[ Dilatation TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 50

TRT#: 1

SEX: Male

DAY ON TEST: 725

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02707

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea			

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
	Renal Tubule	Regeneration	Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 3-12 ]			
Preputial Gland		Dilatation	Marked
		Inflammation	Chronic Active, Mild
[ Dilatation TGLS = 1-13 ]			
[ Inflammation TGLS = 1-13 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Dilatation	Marked
[ Dilatation TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 51

TRT#: 1

SEX: Male

DAY ON TEST: 457

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02708

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Liver	Centrilobular	Fatty Change	Minimal
Preputial Gland		Dilatation	Moderate
[ Dilatation TGLS = 1-9 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 52

TRT#: 1

SEX: Male

DAY ON TEST: 457

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02709

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

* Heart	Mineralization	Minimal
* Salivary Glands	Inflammation	Chronic, Minimal
* Spleen	Hematopoietic Cell Proliferation	Minimal
* Urinary Bladder	Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 53

TRT#: 1

SEX: Male

DAY ON TEST: 457

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02710

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Bone                     | * Bone Marrow             | * Brain                     |
| * Epididymis             | * Esophagus                | * Gallbladder             | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Kidney                  | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      |
| * Pancreas               | * Parathyroid Gland        | * Pituitary Gland         | * Prostate                  |
| * Salivary Glands        | * Seminal Vesicle          | * Skin                    | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Testes                   | * Thymus                  | * Thyroid Gland             |
| * Trachea                |                            |                           |                             |

MISSING

- |                         |                           |                 |
|-------------------------|---------------------------|-----------------|
| * Lymph Node, Bronchial | * Lymph Node, Mediastinal | * Mammary Gland |
|-------------------------|---------------------------|-----------------|

OBSERVATIONS

- |                   |                                       |                                  |                      |
|-------------------|---------------------------------------|----------------------------------|----------------------|
| * Adrenal Cortex  | Subcapsular                           | Hyperplasia                      | Minimal              |
| * Liver           | Centrilobular                         | Fatty Change                     | Minimal              |
|                   |                                       | Hepatocellular Adenoma           |                      |
|                   | [ Hepatocellular Adenoma TGLS = 3-5 ] |                                  |                      |
| * Spleen          |                                       | Hematopoietic Cell Proliferation | Minimal              |
|                   |                                       | Pigmentation                     | Hemosiderin, Minimal |
|                   | [ Pigmentation TGLS = 5.1 ]           |                                  |                      |
| * Urinary Bladder |                                       | Dilatation                       | Moderate             |
|                   | [ Dilatation TGLS = 2-8 ]             |                                  |                      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 54

TRT#: 1

SEX: Male

DAY ON TEST: 457

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02711

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Bone                    | * Bone Marrow               | * Epididymis             |
| * Esophagus                | * Gallbladder             | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Kidney                  | * Larynx                    | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      | * Parathyroid Gland      |
| * Prostate                 | * Salivary Glands         | * Seminal Vesicle           | * Skin                   |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Testes                    | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |                          |

MISSING

- |                           |                 |                   |
|---------------------------|-----------------|-------------------|
| * Lymph Node, Mediastinal | * Mammary Gland | * Pituitary Gland |
|---------------------------|-----------------|-------------------|

OBSERVATIONS

- |   |                |                                   |                      |
|---|----------------|-----------------------------------|----------------------|
| * Adrenal Cortex                                      | Capsule        | Accessory Adrenal Cortical Nodule |                      |
| * Brain   |                | Mineralization                    | Minimal              |
| * Liver   | Centrilobular  | Fatty Change                      | Minimal              |
| * Lung  | Alveolar Epith | Hyperplasia                       | Focal, Moderate      |
| * Pancreas  | Acinus         | Atrophy                           | Marked               |
| [ Atrophy TGLS = 1-2 ]                                |                |                                   |                      |
| * Spleen  |                | Hematopoietic Cell Proliferation  | Minimal              |
| [ Hematopoietic Cell Proliferation TGLS = 5,5.1,5.2 ] |                | Pigmentation                      | Hemosiderin, Minimal |
| [ Pigmentation TGLS = 5.1 ]                           |                |                                   |                      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 55

TRT#: 1

SEX: Male

DAY ON TEST: 457

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02712

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**OBSERVATIONS**

* Brain	Mineralization	Moderate
Preputial Gland	Dilatation	Marked
[ Dilatation TGLS = 2-9 ]		
* Spleen	Hematopoietic Cell Proliferation	Minimal
[ Hematopoietic Cell Proliferation TGLS = 5 ]	Pigmentation	Hemosiderin, Minimal
[ Pigmentation TGLS = 5 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 56

TRT#: 1

SEX: Male

DAY ON TEST: 457

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02713

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Mammary Gland

OBSERVATIONS

* Liver	Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3-5 ]		
Preputial Gland	Dilatation	Marked
[ Dilatation TGLS = 2-9 ]		
* Salivary Glands	Inflammation	Chronic, Minimal
* Spleen	Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 57

TRT#: 1

SEX: Male

DAY ON TEST: 457

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02714

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

**MISSING**

* Lymph Node, Mediastinal	* Mammary Gland
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 58

TRT#: 1

SEX: Male

DAY ON TEST: 457

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02715

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Liver		Hepatocellular Adenoma	Multiple
	[ Hepatocellular Adenoma TGLS = 1,2-5,12 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 59

TRT#: 1

SEX: Male

DAY ON TEST: 457

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02716

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Bone                    | * Bone Marrow               |
| * Epididymis             | * Esophagus                | * Gallbladder             | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Kidney                  | * Larynx                    |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal  | * Lymph Node, Mesenteric  | * Pancreas                  |
| * Parathyroid Gland      | * Pituitary Gland          | * Prostate                | * Salivary Glands           |
| * Seminal Vesicle        | * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Testes                 | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

MISSING

- |                         |                 |
|-------------------------|-----------------|
| * Lymph Node, Bronchial | * Mammary Gland |
|-------------------------|-----------------|

OBSERVATIONS

- |                                |                |                                  |                      |
|--------------------------------|----------------|----------------------------------|----------------------|
| * Brain                        |                | Mineralization                   | Minimal              |
| * Liver                        | Centrilobular  | Fatty Change                     | Mild                 |
| [ Fatty Change TGLS = 1-12.1 ] |                |                                  |                      |
| * Lung                         |                | Alveolar/Bronchiolar Adenoma     |                      |
| * Nose                         | Respirat Epith | Hyperplasia                      | Minimal              |
| * Spleen                       |                | Hematopoietic Cell Proliferation | Minimal              |
|                                |                | Pigmentation                     | Hemosiderin, Minimal |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 60

TRT#: 1

SEX: Male

DAY ON TEST: 457

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02717

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

\* Mammary Gland

OBSERVATIONS

* Lung			
Note: AGONAL CONGESTION/HEMORRHAGE-NO LESION.			
* Pituitary Gland	Pars Intermed	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Testes		Spermatocoele	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 121

TRT#: 2

SEX: Male

DAY ON TEST: 725

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02778

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland	* Pituitary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Adenoma	
		Hypertrophy	Focal, Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
		Syncytial Alteration	Mild
		[ Hepatocellular Adenoma TGLS = 2-5 ]	
* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	
		Hyperplasia	Focal, Minimal
* Nose		Inflammation	Chronic Active, Minimal
Preputial Gland		Abscess	Marked
		Dilatation	Marked
		[ Abscess TGLS = 1-12 ]	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 122

TRT#: 2

SEX: Male

DAY ON TEST: 726

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02779

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mesenteric	* Mammary Gland
--------------------------	-----------------

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney	Renal Tubule	Infiltration Cellular	Lymphocyte, Mild
		Regeneration	Minimal
* Liver		Syncytial Alteration	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 3-13 ]			
Preputial Gland		Dilatation	Moderate
[ Dilatation TGLS = 2-12 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Skin		Inflammation	Chronic Active, Minimal
[ Inflammation TGLS = 1-7 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 123

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-02780

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Gallbladder	* Mammary Gland
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OBSERVATIONS

* Bone Marrow	Hemangiosarcoma	
* Brain	Mineralization	Minimal
* Epididymis	Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 5-9 ]		
* Gallbladder		
Note: OBSERVED BY NEOPLAASM.		
* Kidney	Nephropathy	Moderate
* Liver	Angiectasis	Marked
	Hepatocellular Carcinoma	Multiple
[ Angiectasis TGLS = 4-14,15 ]		
[ Hepatocellular Carcinoma TGLS = 3-12,4-14,15 ]		
* Lung	Hepatocellular Carcinoma	Metastatic (Liver)
Preputial Gland	Dilatation	Marked
[ Dilatation TGLS = 1-16 ]		
* Salivary Glands	Inflammation	Chronic, Minimal
* Spleen	Hematopoietic Cell Proliferation	Mild
* Thymus	Atrophy	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 124

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-02781

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea		

MISSING

* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Intestine Large, Cecum		Hyperplasia	Lymphoid, Mild
* Liver		Hepatocellular Adenoma	
		Syncytial Alteration	Mild
	[ Hepatocellular Adenoma TGLS = 6-12 ]		
* Lung		Alveolar/Bronchiolar Carcinoma	
	[ Alveolar/Bronchiolar Carcinoma TGLS = 7-13 ]		
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
Preputial Gland		Inflammation	Chronic Active, Mild
	[ Inflammation TGLS = 2-14 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Mild
	[ Dilatation TGLS = 3-9 ]		
* Spleen		Hyperplasia	Lymphoid, Mild
	[ Hyperplasia TGLS = 5-5 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Dilatation	Moderate
	[ Dilatation TGLS = 4-8 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:03  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 124

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 725

**DOSE:** 37.5 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02781

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 125

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 561

HISTO: 88-02782

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Jejunum	* Larynx
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Testes	* Thyroid Gland
* Trachea			

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Small, Duodenum	* Intestine Small, Ileum
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney		Hydronephrosis	Mild
		Inflammation	Acute, Moderate
[ Inflammation TGLS = 4-8 ]			
* Liver	Lumbar	Syncytial Alteration	Mild
Lymph Node		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 3-12 ]			
Preputial Gland		Dilatation	Moderate
[ Dilatation TGLS = 5-9 ]			
* Prostate		Inflammation	Acute, Moderate
* Seminal Vesicle		Inflammation	Acute, Minimal
* Skin		Ulcer	Moderate
* Spleen		Hematopoietic Cell Proliferation	Mild
* Stomach, Glandular		Necrosis	Mild
[ Necrosis TGLS = 6-12 ]			
* Thymus		Atrophy	Moderate
* Urinary Bladder		Inflammation	Acute, Marked
[ Inflammation TGLS = 2-8 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:03  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 125

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 561

**DOSE:** 37.5 PPM

**DISP:** Natural Death

**HISTO:** 88-02782

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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Animal Note: INGUINAL LN-HYPOSTATIC CONGESTION (PM) IS PRESENT.

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 126

TRT#: 2

SEX: Male

DAY ON TEST: 725

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02783

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

* Lymph Node, Bronchial	* Parathyroid Gland	* Pituitary Gland	* Prostate
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**OBSERVATIONS**

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Brain		Mineralization	Minimal
* Kidney	Renal Tubule	Regeneration	Minimal
* Liver		Syncytial Alteration	Minimal
* Nose	Respirat Epith	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 127

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02784

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Hypertrophy	Focal, Mild
* Liver		Mineralization	Mild
* Lung		Inflammation	Chronic, Minimal
	[ Alveolar/Bronchiolar Carcinoma TGLS = 3-12 ]	Alveolar/Bronchiolar Carcinoma	
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hemorrhage	Mild
* Nose	Respirat Epith	Hyperplasia	Minimal
	Respirat Epith	Inflammation	Chronic Active, Mild
Preputial Gland		Metaplasia	Squamous, Minimal
	[ Dilatation TGLS = 1-13 ]	Dilatation	Marked
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hyperplasia	Lymphoid, Mild
	[ Hyperplasia TGLS = 2-5 ]	Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:03  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 127

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 37.5 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02784

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 128

TRT#: 2

SEX: Male

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02785

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Prostate	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy	Minimal Focal, Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 3-13 ]			
* Lung	Alveolus	Alveolar/Bronchiolar Adenoma Infiltration Cellular	Multiple Histiocyte, Mild
[ Alveolar/Bronchiolar Adenoma TGLS = 2-12 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Mild
[ Dilatation TGLS = 1-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 129

TRT#: 2

SEX: Male

DAY ON TEST: 725

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02786

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Hypertrophy	Focal, Minimal
* Brain	Mineralization	Mild
* Kidney	Infiltration Cellular	Lymphocyte, Minimal
* Lung	Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 1-12 ]		
* Salivary Glands	Inflammation	Chronic, Mild
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Focal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 130

TRT#: 2

SEX: Male

DAY ON TEST: 124

DOSE: 37.5 PPM

DISP: Moribund Sacrifice

HISTO: 88-02787

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland	* Pituitary Gland
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OBSERVATIONS

* Lymph Node, Mandibular [ Hyperplasia TGLS = 1-2 ]	Hyperplasia	Lymphoid, Mild
* Nose	Inflammation	Chronic Active, Minimal
* Spleen	Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 131

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 724

HISTO: 88-02788

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea

MISSING

* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Kidney	Renal Tubule	Adenoma	
	Renal Tubule	Dilatation	Minimal
	Renal Tubule	Regeneration	Minimal
	[ Adenoma TGLS = 3-8 ]		
* Liver		Hemangiosarcoma	
		Necrosis	Mild
		Syncytial Alteration	Minimal
	[ Hemangiosarcoma TGLS = 4-12 ]		
* Lung			
	Note: FOCAL AGONAL HEMORRHAGE ACCOUNT FOR GROSS LESIONS.		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thymus		Atrophy	Mild
* Urinary Bladder		Dilatation	Marked
	[ Dilatation TGLS = 5-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 132

TRT#: 2

SEX: Male

DAY ON TEST: 725

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02789

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Cyst Hyperplasia Hypertrophy Mineralization	Mild Minimal Focal, Minimal Moderate
* Brain		Infiltration Cellular	Lymphocyte, Minimal
* Kidney		Degeneration	Hyaline, Minimal
* Nose	Olfactory Epi	Inflammation	Chronic, Minimal
* Salivary Glands		Hematopoietic Cell Proliferation	Minimal
* Spleen			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 133

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-02790

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	

MISSING

* Gallbladder	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex		Cyst	Minimal
		Hypertrophy	Focal, Mild
* Epididymis		Spermatocoele	
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hemangiosarcoma	Multiple
		Hepatocellular Adenoma	
		Syncytial Alteration	Minimal
[ Hemangiosarcoma TGLS = 3-13 ]			
[ Hepatocellular Adenoma TGLS = 4-12 ]			
* Nose	Olfactory Epi	Metaplasia	Minimal
Preputial Gland		Inflammation	Chronic Active, Mild
[ Inflammation TGLS = 1-14 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Urinary Bladder		Dilatation	Moderate
[ Dilatation TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:03  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 134

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 725

**DOSE:** 37.5 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02791

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver	Midzonal	Clear Cell Focus	
		Fatty Change	Minimal
		Mixed Cell Focus	
Note: TAN FOCUS, TGL1, NOT IN ORIGINAL OR RECUT. [ Mixed Cell Focus TGLS = 2-12 ]			
* Lung		Infiltration Cellular	Lymphocyte, Mild
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 135

TRT#: 2

SEX: Male

DAY ON TEST: 725

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02792

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy Mineralization	Mild Focal, Mild
* Brain			Minimal
* Nose	Respirat Epith Respirat Epith	Hyperplasia Ulcer	Minimal Minimal
Preputial Gland		Inflammation	Chronic Active, Mild
[ Inflammation TGLS = 2-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Moderate
[ Dilatation TGLS = 3-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 136

TRT#: 2

SEX: Male

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02793

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Pancreas	* Prostate
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Mammary Gland	* Parathyroid Gland
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INSUFFICIENT TISSUE

* Pituitary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
Harderian Gland		Adenoma	
		Inflammation	Chronic Active, Marked
[ Adenoma TGLS = 3-13 ]			
[ Inflammation TGLS = 3-13 ]			
Islets, Pancreatic		Hyperplasia	Focal, Mild
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-12 ]			
* Lymph Node, Mesenteric		Hemorrhage	Mild
* Nose	Respirat Epith	Hyperplasia	Minimal
* Seminal Vesicle		Dilatation	Moderate
[ Dilatation TGLS = 2-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 137

TRT#: 2

SEX: Male

DAY ON TEST: 725

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02794

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Hypertrophy	Focal, Minimal
* Kidney		Mineralization	Mild
* Liver		Infiltration Cellular	Lymphocyte, Minimal
* Spleen		Syncytial Alteration	Minimal
		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 138

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 667

HISTO: 88-02795

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
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OBSERVATIONS

* Brain		Mineralization	Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 3-5 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	Multiple
[ Alveolar/Bronchiolar Carcinoma TGLS = 1,2-6 ]			
* Nose		Inflammation	Chronic Active, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 139

TRT#: 2

SEX: Male

DAY ON TEST: 692

DOSE: 37.5 PPM

DISP: Natural Death

HISTO: 88-02796

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Epididymis  
\* Lymph Node, Mandibular  
\* Seminal Vesicle  
\* Trachea

\* Adrenal Medulla  
\* Heart  
\* Parathyroid Gland  
\* Skin

\* Bone  
\* Intestine Large, Colon  
\* Pituitary Gland  
\* Testes

\* Bone Marrow  
\* Intestine Large, Rectum  
\* Prostate  
\* Thyroid Gland

MISSING

\* Esophagus  
\* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

\* Gallbladder  
\* Intestine Small, Jejunum  
\* Stomach, Forestomach

\* Intestine Large, Cecum  
\* Lymph Node, Mesenteric  
\* Stomach, Glandular

\* Intestine Small, Duodenum  
\* Mammary Gland  
\* Urinary Bladder

\* Intestine Small, Ileum  
\* Pancreas

OBSERVATIONS

\* Brain  
\* Kidney  
\* Larynx  
\* Liver  
    [ Hepatocellular Carcinoma TGLS = 1-12 ]  
\* Lung  
    [ Hepatocellular Carcinoma TGLS = 4,5-6 ]  
\* Lymph Node, Mediastinal  
\* Nose  
\* Salivary Glands  
\* Spleen  
\* Thymus

Olfactory Epi

Mineralization  
Amyloid Deposition  
Inflammation  
Hepatocellular Carcinoma  
Hepatocellular Carcinoma  
Hepatocellular Carcinoma  
Degeneration  
Inflammation  
Hematopoietic Cell Proliferation  
Pigmentation  
Atrophy

Mild  
Mild  
Acute, Moderate  
Metastatic (Liver)  
Metastatic (Liver)  
Hyaline, Minimal  
Chronic, Minimal  
Minimal  
Hemosiderin, Minimal  
Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 140

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-02797

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	

MISSING

* Mammary Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung	Alveolar Epith	Hyperplasia	Focal, Minimal
Preputial Gland		Dilatation	Moderate
[ Dilatation TGLS = 1-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 141

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 581

HISTO: 88-02798

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Epididymis		Lymphoma Malignant Mixed	
* Kidney	Renal Tubule	Dilatation	Minimal
* Liver		Necrosis	Minimal
* Lung		Lymphoma Malignant Mixed	
* Lymph Node, Mediastinal		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 3-12 ]			
* Lymph Node, Mesenteric		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 3-12 ]			
* Nose	Respirat Epith	Hyperplasia	Minimal
* Pancreas		Lymphoma Malignant Mixed	
Preputial Gland		Dilatation	Moderate
[ Dilatation TGLS = 2-9 ]			
* Spleen		Lymphoma Malignant Mixed	
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 142

TRT#: 2

SEX: Male

DAY ON TEST: 725

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02799

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Brain		Mineralization	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 2-12 ]			
* Nose	Respirat Epith	Hyperplasia	Minimal
Preputial Gland		Dilatation	Marked
[ Dilatation TGLS = 1-13 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 143

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-02800

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland	* Prostate
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Brain		Mineralization	Mild
* Liver		Clear Cell Focus	
		Hepatocellular Adenoma	
[ Clear Cell Focus TGLS = 3-12 ]			
[ Hepatocellular Adenoma TGLS = 3-12 ]			
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 1-13 ]			
* Nose	Respirat Epith	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Mild
[ Dilatation TGLS = 2-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 144

TRT#: 2

SEX: Male

DAY ON TEST: 379

DOSE: 37.5 PPM

DISP: Natural Death

HISTO: 88-02801

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea			

MISSING

* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Brain		Mineralization	Minimal
* Kidney		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-8 ]			
* Liver		Hematopoietic Cell Proliferation	Minimal
Lymph Node	Renal	Hyperplasia	Plasma Cell, Moderate
[ Hyperplasia TGLS = 2-12 ]			
* Prostate		Inflammation	Chronic Active, Moderate
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Thymus		Atrophy	Moderate
* Urinary Bladder	Transit Epithe	Hyperplasia	Marked
		Inflammation	Chronic Active, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 145

TRT#: 2

SEX: Male

DAY ON TEST: 614

DOSE: 37.5 PPM

DISP: Moribund Sacrifice

HISTO: 88-02802

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Epididymis	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	Penis	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Brain		Mineralization	Mild
* Kidney		Hydronephrosis	Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Urinary Bladder		Inflammation	Chronic Active, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 146

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-02803

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Liver		Clear Cell Focus	
	[ Clear Cell Focus TGLS = 1-13 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-12 ]	Infiltration Cellular	Lymphocyte, Mild
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 147

TRT#: 2

SEX: Male

DAY ON TEST: 699

DOSE: 37.5 PPM

DISP: Moribund Sacrifice

HISTO: 88-02804

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
Spinal Cord	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Trachea	* Urinary Bladder		

MISSING

* Esophagus	* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Brain		Mineralization	Mild
* Kidney	Renal Tubule	Regeneration	Minimal
* Liver	Centrilobular	Fatty Change	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Moderate
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 148

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 667

HISTO: 88-02805

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Esophagus	* Mammary Gland	* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Brain		Mineralization	Minimal
* Larynx		Inflammation	Chronic Active, Minimal
* Liver		Developmental Malformation	
		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
	[ Developmental Malformation TGLS = 6-5 ]		
	[ Hepatocellular Adenoma TGLS = 6-5 ]		
	[ Hepatocellular Carcinoma TGLS = 1-5 ]		
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
* Nose	Respirat Epith	Hyperplasia	Minimal
	Respirat Epith	Ulcer	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 149

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-02806

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	

MISSING

* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Brain		Mineralization	Mild
* Intestine Small, Jejunum		Inflammation	Chronic Active, Moderate
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Mixed Cell Focus	
		Syncytial Alteration	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Mild
[ Dilatation TGLS = 1-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Dilatation	Moderate
[ Dilatation TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 150

TRT#: 2

SEX: Male

DAY ON TEST: 725

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02807

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Bone                    | * Bone Marrow               |
| * Epididymis             | * Esophagus                | * Gallbladder             | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Kidney                  | * Larynx                    |
| * Liver                  | * Lung                     | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   |
| * Lymph Node, Mesenteric | * Pancreas                 | * Pituitary Gland         | * Prostate                  |
| * Seminal Vesicle        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Testes                   | * Thymus                  | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

MISSING

- |                         |                 |                     |
|-------------------------|-----------------|---------------------|
| * Lymph Node, Bronchial | * Mammary Gland | * Parathyroid Gland |
|-------------------------|-----------------|---------------------|

OBSERVATIONS

- |                          |                |                |                      |
|--------------------------|----------------|----------------|----------------------|
| * Brain                  |                | Mineralization | Minimal              |
| * Nose                   | Respirat Epith | Degeneration   | Hyaline, Minimal     |
|                          | Respirat Epith | Inflammation   | Chronic Active, Mild |
|                          |                | Metaplasia     | Squamous, Minimal    |
| Preputial Gland          |                | Abscess        | Marked               |
| [ Abscess TGLS = 1-13 ]  |                |                |                      |
| * Salivary Glands        |                | Inflammation   | Chronic, Minimal     |
| * Thyroid Gland          | Follicular Cel | Carcinoma      |                      |
| [ Carcinoma TGLS = 3-3 ] |                |                |                      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 151

TRT#: 2

SEX: Male

DAY ON TEST: 726

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02808

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Adrenal Cortex	* Adrenal Medulla	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Kidney		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 152

TRT#: 2

SEX: Male

DAY ON TEST: 693

DOSE: 37.5 PPM

DISP: Natural Death

HISTO: 88-02809

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Epididymis	* Esophagus	* Intestine Large, Rectum
* Larynx	* Nose	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder			

**MISSING**

* Lymph Node, Bronchial	* Mammary Gland
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**AUTO PRECLUDES DIAG.**

* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum		

**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone	Mandible	Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
	Rib	Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
	[ Alveolar/Bronchiolar Carcinoma TGLS = 3-13,7-14,4-14 ]		
	[ Alveolar/Bronchiolar Carcinoma TGLS = 3-13,7-14,4-14 ]		
* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Heart		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
* Kidney		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
	[ Alveolar/Bronchiolar Carcinoma TGLS = 8,9-8 ]		
* Liver		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
	[ Alveolar/Bronchiolar Carcinoma TGLS = 10,11-5 ]		
* Lung		Alveolar/Bronchiolar Carcinoma	
	[ Alveolar/Bronchiolar Carcinoma TGLS = 6-6 ]		
Lymph Node	Inguinal	Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
	[ Alveolar/Bronchiolar Carcinoma TGLS = 12-15,5-3 ]		
* Lymph Node, Mandibular		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
	[ Alveolar/Bronchiolar Carcinoma TGLS = 12-15,5-3 ]		
* Lymph Node, Mediastinal		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:03  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 152	<b>TRT#:</b> 2	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 693
	<b>DOSE:</b> 37.5 PPM	<b>DISP:</b> Natural Death	<b>HISTO:</b> 88-02809

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Alveolar/Bronchiolar Carcinoma TGLS = 12-15,5-3 ]			
* Lymph Node, Mesenteric		Hemorrhage	Marked
* Pancreas	Acinus	Atrophy	Minimal
Preputial Gland		Dilatation	Marked
		Inflammation	Chronic Active, Mild
[ Inflammation TGLS = 1,2-12 ]			
Skeletal Muscle		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 13,14-16 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
* Thyroid Gland		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 153

TRT#: 2

SEX: Male

DAY ON TEST: 726

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02810

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Mild
* Intestine Large, Cecum		Hyperplasia	Lymphoid, Mild
* Intestine Small, Jejunum		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 3-14 ]			
* Kidney		Cyst	Minimal
* Liver	Centrilobular	Fatty Change	Minimal
* Nose	Respirat Epith	Hyperplasia	Minimal
Preputial Gland		Dilatation	Moderate
		Inflammation	Chronic Active, Mild
[ Dilatation TGLS = 2-12 ]			
[ Inflammation TGLS = 1-13 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:03

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 154

TRT#: 2

SEX: Male

DAY ON TEST: 726

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02811

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea			

MISSING

\* Mammary Gland

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-12 ]			
* Nose		Inflammation	Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Dilatation	Marked
[ Dilatation TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 155

TRT#: 2

SEX: Male

DAY ON TEST: 726

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02812

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Gallbladder	* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
[ Alveolar/Bronchiolar Adenoma TGLS = 1,2-12,13 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 156

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 703

HISTO: 88-02813

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Ileum	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Mediastinal	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Large, Cecum	* Intestine Small, Jejunum	* Urinary Bladder
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Intestine Small, Duodenum		Proliferation Connective Tissue	
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Basophilic Focus	
		Hepatocellular Adenoma	
		Infarct	Marked
		Proliferation Connective Tissue	
Note: ADHESION.			
[ Hepatocellular Adenoma TGLS = 3-5 ]			
[ Infarct TGLS = 3-4 ]			
Preputial Gland		Abscess	Moderate
		Dilatation	Marked
[ Abscess TGLS = 1-12 ]			
[ Dilatation TGLS = 1-12 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Thymus		Atrophy	Marked

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 156

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 703

**DOSE:** 37.5 PPM

**DISP:** Natural Death

**HISTO:** 88-02813

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: ADHESION.

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 157

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 684

HISTO: 88-02814

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Colon	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum		

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Liver		Basophilic Focus	
		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
		Necrosis	Mild
	[ Hepatocellular Carcinoma TGLS = 2-13 ]		
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
Preputial Gland		Dilatation	Marked
	[ Dilatation TGLS = 1,3-12 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 158

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-02815

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Epididymis	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Adrenal Medulla		Pheochromocytoma Benign	
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
		Infarct	Mild
		[ Hepatocellular Adenoma TGLS = 3-12 ]	
		[ Infarct TGLS = 2-14 ]	
Preputial Gland		Dilatation	Marked
		[ Dilatation TGLS = 1-15 ]	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 159

TRT#: 2

SEX: Male

DAY ON TEST: 726

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02816

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Esophagus	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
* Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin	Epithelium	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 160

TRT#: 2

SEX: Male

DAY ON TEST: 726

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02817

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea			

**MISSING**

* Lymph Node, Bronchial	* Mammary Gland
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-12 ]			
* Lung	Alveolar Epith	Hyperplasia	Focal, Moderate
		Infiltration Cellular	Lymphocyte, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 161

TRT#: 2

SEX: Male

DAY ON TEST: 682

DOSE: 37.5 PPM

DISP: Natural Death

HISTO: 88-02818

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Mammary Gland	* Parathyroid Gland
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AUTO PRECLUDES DIAG.

* Gallbladder
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OBSERVATIONS

* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
	Renal Tubule	Regeneration	Minimal
* Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 1-12 ]		
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 162

TRT#: 2

SEX: Male

DAY ON TEST: 726

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02819

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea		

MISSING

* Mammary Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy	Minimal Focal, Mild
* Lung		Alveolar/Bronchiolar Adenoma Alveolar/Bronchiolar Carcinoma	
	[ Alveolar/Bronchiolar Carcinoma TGLS = 2-12 ]		
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal
* Urinary Bladder		Dilatation Infiltration Cellular	Mild Lymphocyte, Minimal
	[ Dilatation TGLS = 1-13 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 163

TRT#: 2

SEX: Male

DAY ON TEST: 725

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02820

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Kidney
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea	* Urinary Bladder	

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Hyperostosis	Mild
* Epididymis		Inflammation	Chronic Active, Mild
* Intestine Small, Jejunum		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 6-15 ]			
* Liver		Lymphoma Malignant Mixed	
* Lung		Alveolar/Bronchiolar Adenoma	
Lymph Node	Renal	Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 4,5-14,7-16 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 4,5-14,7-16 ]			
* Lymph Node, Mesenteric		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 4,5-14,7-16 ]			
* Nose	Respirat Epith	Hyperplasia	Minimal
* Spleen		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 3-12,13 ]			
* Thymus		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 2-2 ]			
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 163

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 725

**DOSE:** 37.5 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02820

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 164

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-02821

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver	Centrilobular	Fatty Change	Minimal
		Syncytial Alteration	Mild
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Focal, Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 1-12 ]		
* Lymph Node, Mesenteric		Hemorrhage	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 165

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-02822

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Mandibular
* Pancreas	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
		Mixed Cell Focus	
		Syncytial Alteration	Minimal
[ Hepatocellular Adenoma TGLS = 3-12,13 ]			
[ Mixed Cell Focus TGLS = 6-17 ]			
Lymph Node	Renal	Lymphoma Malignant Mixed	
		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 5-18,4-15 ]			
[ Lymphoma Malignant Mixed TGLS = 5-18,4-15 ]			
* Lymph Node, Mesenteric		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 5-18,4-15 ]			
* Nose	Respirat Epith	Hyperplasia	Minimal
Preputial Gland		Dilatation	Moderate
[ Dilatation TGLS = 1-16 ]			
* Spleen		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 2-14 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 165

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 37.5 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02822

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 166

TRT#: 2

SEX: Male

DAY ON TEST: 726

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02823

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Brain		Mineralization	Mild
* Liver		Syncytial Alteration	Minimal
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 167

TRT#: 2

SEX: Male

DAY ON TEST: 726

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02824

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

* Intestine Large, Cecum	* Mammary Gland	* Thymus
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**OBSERVATIONS**

* Brain Islets, Pancreatic	Mineralization Adenoma Hyperplasia	Mild
* Liver	Syncytial Alteration	Focal, Marked
* Spleen	Hematopoietic Cell Proliferation Pigmentation	Minimal Minimal Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 168

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 687

HISTO: 88-02825

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lung
* Lymph Node, Mandibular	* Pancreas	* Pituitary Gland	* Prostate
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 2,3-8 ]			
* Liver		Inflammation	Chronic Active, Minimal
* Lymph Node, Mesenteric		Hematopoietic Cell Proliferation	Moderate
* Nose		Inflammation	Chronic Active, Minimal
Preputial Gland		Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 1-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Mild
[ Dilatation TGLS = 4-9 ]			
* Skin		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-12 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Urinary Bladder		Inflammation	Chronic Active, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 169

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-02826

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Brain	Mineralization	Mild
* Liver	Hepatocellular Adenoma	
	Mixed Cell Focus	
	Syncytial Alteration	Minimal
[ Hepatocellular Adenoma TGLS = 2-12 ]		
* Lung	Alveolar/Bronchiolar Adenoma	Multiple
	Alveolar/Bronchiolar Carcinoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 1-13 ]		
[ Alveolar/Bronchiolar Carcinoma TGLS = 1-13 ]		
* Salivary Glands	Inflammation	Chronic, Minimal
* Spleen	Hematopoietic Cell Proliferation	Minimal
* Thyroid Gland	Follicular Cel Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 170

TRT#: 2

DOSE: 37.5 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-02827

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Brain	* Epididymis	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Prostate	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea

MISSING

* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone	Cartilage	Degeneration	Moderate
[ Degeneration TGLS = 3-15 ]			
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-12 ]			
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
* Lymph Node, Bronchial		Hemorrhage	Mild
* Pituitary Gland	Pars Intermed	Adenoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin		Inflammation	Chronic Active, Marked
		Ulcer	Marked
[ Inflammation TGLS = 4-14 ]			
[ Ulcer TGLS = 4-14 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Dilatation	Mild
[ Dilatation TGLS = 1-13 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 170

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 725

**DOSE:** 37.5 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02827

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 171

TRT#: 2

SEX: Male

DAY ON TEST: 457

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02828

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Brain  
\* Heart  
\* Intestine Small, Duodenum  
\* Larynx  
\* Lymph Node, Mesenteric  
\* Salivary Glands  
\* Stomach, Glandular  
\* Trachea

\* Adrenal Medulla  
\* Epididymis  
\* Intestine Large, Cecum  
\* Intestine Small, Ileum  
\* Lung  
\* Pancreas  
\* Seminal Vesicle  
\* Testes  
\* Urinary Bladder

\* Bone  
\* Esophagus  
\* Intestine Large, Colon  
\* Intestine Small, Jejunum  
\* Lymph Node, Mandibular  
\* Pituitary Gland  
\* Skin  
\* Thymus

\* Bone Marrow  
\* Gallbladder  
\* Intestine Large, Rectum  
\* Kidney  
\* Lymph Node, Mediastinal  
\* Prostate  
\* Stomach, Forestomach  
\* Thyroid Gland

MISSING

\* Lymph Node, Bronchial

\* Mammary Gland

\* Parathyroid Gland

OBSERVATIONS

\* Liver  
\* Nose  
\* Spleen

Centrilobular  
Respirat Epith

Fatty Change  
Hyperplasia  
Hematopoietic Cell Proliferation  
Pigmentation

Minimal  
Minimal  
Minimal  
Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 172

TRT#: 2

SEX: Male

DAY ON TEST: 457

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02829

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

* Brain	Mineralization	Mild
* Lung	Alveolar/Bronchiolar Adenoma	
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 173

TRT#: 2

SEX: Male

DAY ON TEST: 457

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02830

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
		Hypertrophy	Focal, Minimal
* Liver	Centrilobular	Fatty Change	Minimal
* Nose	Respirat Epith	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 174

TRT#: 2

SEX: Male

DAY ON TEST: 457

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02831

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

* Lymph Node, Mandibular	* Mammary Gland	* Parathyroid Gland
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**OBSERVATIONS**

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-5 ]			
* Nose	Respirat Epith	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite

**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014

**Time Report Requested:** 23:28:04

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

**Lab:** IIT

**ANIMAL ID:** 175

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 457

**DOSE:** 37.5 PPM

**DISP:** Scheduled Sacrifice

**HISTO:** 88-02832

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 176

TRT#: 2

SEX: Male

DAY ON TEST: 457

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02833

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Nose	* Pancreas
* Pituitary Gland	Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Cyst	Moderate
* Brain		Mineralization	Minimal
* Kidney	Renal Tubule	Dilatation	Minimal
* Liver		Hepatocellular Carcinoma	
		Mixed Cell Focus	
	[ Hepatocellular Carcinoma TGLS = 3-5 ]		
	[ Mixed Cell Focus TGLS = 2-12 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 177

TRT#: 2

SEX: Male

DAY ON TEST: 457

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02834

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Liver	Centrilobular	Fatty Change	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 178

TRT#: 2

SEX: Male

DAY ON TEST: 457

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02835

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Brain		Mineralization	Mild
* Lung		Alveolar/Bronchiolar Adenoma	
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 179

TRT#: 2

SEX: Male

DAY ON TEST: 457

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02836

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Brain		Mineralization	Minimal
Islets, Pancreatic		Hyperplasia	Focal, Mild
* Kidney	Renal Tubule	Regeneration	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
[ Hematopoietic Cell Proliferation TGLS = 5 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 180

TRT#: 2

SEX: Male

DAY ON TEST: 457

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02837

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

- |          |                                  |         |
|----------|----------------------------------|---------|
| * Spleen | Hematopoietic Cell Proliferation | Minimal |
|----------|----------------------------------|---------|

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 241

TRT#: 3

SEX: Male

DAY ON TEST: 726

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02898

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Liver		Syncytial Alteration	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
	Alveolar Epith	Hyperplasia	Focal, Moderate
	[ Alveolar/Bronchiolar Adenoma TGLS = 2,3-12 ]		
* Nose	Respirat Epith	Hyperplasia	Minimal
Preputial Gland		Dilatation	Marked
		Inflammation	Chronic Active, Mild
	[ Dilatation TGLS = 1-13 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 242

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-02899

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Syncytial Alteration	Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
Mesentery		Hemangiosarcoma	
[ Hemangiosarcoma TGLS = 2-12 ]			
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hemangiosarcoma	
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Testes	Interstit Cell	Adenoma	
[ Adenoma TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 243

TRT#: 3

SEX: Male

DAY ON TEST: 726

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02900

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy	Minimal Focal, Minimal
* Brain		Mineralization	Minimal
* Nose	Respirat Epith	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 244

TRT#: 3

SEX: Male

DAY ON TEST: 564

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02901

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Nose	* Pancreas	* Salivary Glands	* Stomach, Forestomach
* Testes	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland	* Pituitary Gland
* Thymus			

AUTO PRECLUDES DIAG.

\* Intestine Small, Duodenum

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Brain		Mineralization	Mild
* Kidney		Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 6-8 ]			
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-5 ]			
* Lymph Node, Mesenteric		Hemorrhage	Marked
[ Hemorrhage TGLS = 5-7 ]			
Penis		Inflammation	Chronic Active, Mild
* Prostate		Inflammation	Chronic Active, Minimal
* Seminal Vesicle		Dilatation	Mild
[ Dilatation TGLS = 2-9 ]			
* Skin	Prepuce	Inflammation	Chronic Active, Marked
	Prepuce	Ulcer	Marked
[ Inflammation TGLS = 8-12 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Stomach, Glandular		Necrosis	Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 244

**TRT#:** 3  
**DOSE:** 75 PPM

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

**DAY ON TEST:** 564  
**HISTO:** 88-02901

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Necrosis TGLS = 7-13 ]

\* Urinary Bladder

Dilatation  
Inflammation

Moderate  
Chronic Active, Moderate

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[ Dilatation TGLS = 3-8 ]

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 245

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-02902

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea			

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Capsule Subcapsular	Accessory Adrenal Cortical Nodule Hyperplasia Mineralization Infiltration Cellular Eosinophilic Focus	Minimal Minimal Lymphocyte, Minimal
* Brain			
* Kidney			
* Liver			
[ Eosinophilic Focus TGLS = 2-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Dilatation	Moderate
[ Dilatation TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 246

TRT#: 3

SEX: Male

DAY ON TEST: 614

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 88-02903

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Mandibular
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea		

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Kidney		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 2-12 ]			
* Liver		Hematopoietic Cell Proliferation	Moderate
* Lymph Node, Mesenteric		Hematopoietic Cell Proliferation	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Seminal Vesicle		Dilatation	Mild
[ Dilatation TGLS = 4-9 ]			
* Spleen		Hematopoietic Cell Proliferation Granulocytic	Marked
[ Hematopoietic Cell Proliferation Granulocytic TGLS = 3-5 ]			
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 247

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-02904

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Epididymis		Inflammation	Chronic Active, Mild
* Liver		Hepatocellular Adenoma	
		Syncytial Alteration	Minimal
	[ Hepatocellular Adenoma TGLS = 2-12 ]		
* Lung	Alveolus	Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Histiocyte, Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 1-14 ]		
* Seminal Vesicle		Inflammation	Chronic Active, Mild
Skeletal Muscle		Inflammation	Chronic Active, Mild
	[ Inflammation TGLS = 3-9 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Testes	Tunic	Inflammation	Chronic, Mild
	Tunic	Proliferation Connective Tissue	
	[ Proliferation Connective Tissue TGLS = 3-9 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 248

TRT#: 3

SEX: Male

DAY ON TEST: 557

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02905

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland	* Parathyroid Gland	* Thymus
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AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Small, Ileum
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INSUFFICIENT TISSUE

\* Pituitary Gland

OBSERVATIONS

* Liver	Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3-12 ]		
* Lung	Hepatocellular Carcinoma	Metastatic (Liver)
[ Hepatocellular Carcinoma TGLS = 2-6 ]		
* Mammary Gland		
Note: MAMMARY GLAND NOT IN 2 SKIN SECTIONS.		
* Sem Ves		
Note: DECREASED SECRETION-NO LESION.		
* Skin		
Note: HYPOSTATIC CONGESTION IN SUBCUTIS-NO LESION.		
* Spleen	Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 249      **TRT#:** 3      **SEX:** Male      **DAY ON TEST:** 726  
**DOSE:** 75 PPM      **DISP:** Terminal Sacrifice      **HISTO:** 88-02906

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

* Lymph Node, Bronchial	* Mammary Gland
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**OBSERVATIONS**

* Brain		Mineralization	Minimal
* Kidney	Renal Tubule	Hyperplasia	Focal, Moderate
		Mineralization	Minimal
* Liver	Bile Duct	Cyst	Moderate
	Bile Duct	Hyperplasia	Minimal
		Syncytial Alteration	Mild
[ Cyst TGLS = 4-12 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
	Respirat Epith	Hyperplasia	Minimal
		Dilatation	Marked
Preputial Gland			
[ Dilatation TGLS = 2-13 ]			
* Seminal Vesicle		Dilatation	Moderate
[ Dilatation TGLS = 3-9 ]			
* Skin	Epithelium	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 250

TRT#: 3

SEX: Male

DAY ON TEST: 726

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02907

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Gallbladder	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
* Parathyroid Gland	* Thymus		

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver	Bile Duct	Cyst	Moderate
		Hepatocellular Carcinoma	
	[ Cyst TGLS = 3-14 ]		
	[ Hepatocellular Carcinoma TGLS = 2-12 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 1-15 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Testes		Mineralization	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 251

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02908

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

* Lymph Node, Bronchial	* Mammary Gland
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**OBSERVATIONS**

* Bone		Developmental Malformation	
[ Developmental Malformation TGLS = 5-15 ]			
* Brain		Mineralization	Minimal
Islets, Pancreatic		Hyperplasia	Focal, Moderate
* Kidney		Cyst	Moderate
* Liver		Cytologic Alterations	
[ Infarct TGLS = 4-12 ]		Infarct	Marked
* Nose	Respirat Epith	Degeneration	Hyaline, Mild
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Chronic Active, Mild
Preputial Gland		Abscess	Marked
[ Abscess TGLS = 1-13 ]			
* Seminal Vesicle		Dilatation	Marked
[ Dilatation TGLS = 2-9,3-14 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Moderate
Tooth		Odontoma	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 251

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02908

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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:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 252

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 408

**DOSE:** 75 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 88-02909

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
Tissue NOS	* Trachea		

**MISSING**

* Lymph Node, Mediastinal	* Mammary Gland	* Prostate
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**OBSERVATIONS**

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Heart	Artery	Inflammation	Chronic Active, Minimal
* Kidney	Artery	Inflammation	Chronic Active, Mild
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
	Iliac	Infiltration Cellular	Histiocyte, Mild
	[ Hyperplasia TGLS = 3-7 ]		
	[ Infiltration Cellular TGLS = 6-13 ]		
* Lymph Node, Mesenteric		Hyperplasia	Plasma Cell, Mild
	[ Hyperplasia TGLS = 3-7 ]		
Mesentery	Artery	Inflammation	Chronic Active, Moderate
	Note: ARTERY ADJACENT TO ILIAC LYMPH NODE.		
	[ Inflammation TGLS = 5-13 ]		
* Skin		Inflammation	Chronic Active, Marked
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Moderate
* Urinary Bladder		Dilatation	Mild
		Inflammation	Chronic Active, Moderate
	[ Dilatation TGLS = 2-8 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 252

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 408

**DOSE:** 75 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 88-02909

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Inflammation TGLS = 1-8 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 253

TRT#: 3

SEX: Male

DAY ON TEST: 725

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02910

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy	Minimal Focal, Moderate
* Lung	[ Alveolar/Bronchiolar Adenoma TGLS = 2-12 ]	Alveolar/Bronchiolar Adenoma	
* Nose	Olfactory Epi	Metaplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal
* Urinary Bladder	[ Dilatation TGLS = 1-8 ]	Dilatation	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 254

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-02911

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Medulla	Hyperplasia	Focal, Moderate
* Kidney	Infarct	Minimal
	Infiltration Cellular	Lymphocyte, Minimal
* Liver	Basophilic Focus	
* Lung	Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Focal, Minimal
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-13 ]	
Preputial Gland	Dilatation	Marked
	[ Dilatation TGLS = 1-12 ]	
* Salivary Glands	Inflammation	Chronic, Minimal
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 255

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02912

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea		

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Epididymis		Inflammation	Chronic Active, Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hemangiosarcoma	
		Hepatocellular Adenoma	
		[ Hemangiosarcoma TGLS = 2-5 ]	
		[ Hepatocellular Adenoma TGLS = 1-5 ]	
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
Note: UNUSUAL MORPHOLOGY.			
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Dilatation	Moderate
		[ Dilatation TGLS = 3-8 ]	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 256

TRT#: 3

SEX: Male

DAY ON TEST: 726

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02913

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
		Hyperplasia	Moderate
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Liver		Hepatocellular Adenoma	
	[ Hepatocellular Adenoma TGLS = 1-12 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-14 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 257

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-02914

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Marked
* Brain		Mineralization	Moderate
* Kidney	Renal Tubule	Regeneration	Minimal
* Liver		Syncytial Alteration	Mild
* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-12 ]	Hyperplasia	Focal, Minimal
* Nose	Respirat Epith	Hyperplasia	Minimal
Preputial Gland		Dilatation	Marked
	[ Dilatation TGLS = 1-13 ]		
* Prostate		Hyperplasia	Focal, Moderate
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 258

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 0705088-0291

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Moderate
* Liver		Cytologic Alterations	Mild
[ Cytologic Alterations TGLS = 6-5 ]			
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
* Nose	Olfactory Epi	Atrophy	Mild
		Exudate	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Chronic Active, Minimal
Preputial Gland		Dilatation	Moderate
[ Dilatation TGLS = 2-14 ]			
* Seminal Vesicle		Dilatation	Marked
[ Dilatation TGLS = 3-9,12 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 259

TRT#: 3

SEX: Male

DAY ON TEST: 558

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 88-02916

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Bone                     | * Bone Marrow             |
| * Brain                     | * Epididymis             | * Esophagus                | * Gallbladder             |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Kidney                  |
| * Larynx                    | * Liver                  | * Lung                     | * Lymph Node, Mandibular  |
| * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Nose                     | * Pancreas                |
| * Parathyroid Gland         | * Pituitary Gland        | * Prostate                 | * Salivary Glands         |
| * Seminal Vesicle           | * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Testes                    | * Trachea                | * Urinary Bladder          |                           |

MISSING

- |                         |                 |
|-------------------------|-----------------|
| * Lymph Node, Bronchial | * Mammary Gland |
|-------------------------|-----------------|

OBSERVATIONS

- |                    |                |                                  |                   |
|--------------------|----------------|----------------------------------|-------------------|
| Islets, Pancreatic |                | Hyperplasia                      | Focal, Mild       |
| * Spleen           |                | Hematopoietic Cell Proliferation | Minimal           |
|                    |                | Pigmentation                     | Hemosiderin, Mild |
| * Thymus           |                | Atrophy                          | Mild              |
| * Thyroid Gland    | C Cell         | Carcinoma                        |                   |
|                    | Follicular Cel | Hyperplasia                      | Focal, Minimal    |

[ Carcinoma TGLS = 1-2,3,3.1,3.2 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 260

TRT#: 3

SEX: Male

DAY ON TEST: 662

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02917

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Heart	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea		

MISSING

* Esophagus	* Gallbladder	* Lymph Node, Bronchial	* Mammary Gland
* Thymus			

AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Small, Ileum
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OBSERVATIONS

* Brain		Mineralization	Mild
* Epididymis		Cholangiocarcinoma	Metastatic (Liver)
* Kidney		Cholangiocarcinoma	Metastatic (Liver)
* Liver		Cholangiocarcinoma	
		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
		Infarct	Marked
[ Cholangiocarcinoma TGLS = 2-13,5-16 ]			
[ Hepatocellular Adenoma TGLS = 4-15 ]			
[ Hepatocellular Carcinoma TGLS = 2-13 ]			
* Lung	Mediastinum	Cholangiocarcinoma	Metastatic (Liver)
		Cholangiocarcinoma	Metastatic (Liver)
[ Cholangiocarcinoma TGLS = 6-6 ]			
[ Cholangiocarcinoma TGLS = 6-6 ]			
Lymph Node	Inguinal	Cholangiocarcinoma	Metastatic (Liver)
[ Cholangiocarcinoma TGLS = 1-12 ]			
* Lymph Node, Mediastinal		Cholangiocarcinoma	Metastatic (Liver)
[ Cholangiocarcinoma TGLS = 1-12 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 260	<b>TRT#:</b> 3 <b>DOSE:</b> 75 PPM	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 662 <b>HISTO:</b> 88-02917
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Lymph Node, Mesenteric [ Cholangiocarcinoma TGLS = 1-12 ]		Cholangiocarcinoma	Metastatic (Liver)
Mesentery [ Cholangiocarcinoma TGLS = 3-14 ]		Cholangiocarcinoma	Metastatic (Liver)
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Cholangiocarcinoma	Metastatic (Liver)

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 261

TRT#: 3

SEX: Male

DAY ON TEST: 558

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02918

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Ileum	* Kidney	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Pancreas
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland	* Parathyroid Gland
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AUTO PRECLUDES DIAG.

* Intestine Small, Duodenum	* Intestine Small, Jejunum
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OBSERVATIONS

* Liver		Basophilic Focus	
		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
		[ Basophilic Focus TGLS = 2-5,5.1 ]	
		[ Hepatocellular Adenoma TGLS = 1-12 ]	
		[ Hepatocellular Carcinoma TGLS = 4-12 ]	
* Lymph Node, Mesenteric		Hemorrhage	Mild
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 262

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-02919

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Nose	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Trachea			

MISSING

* Larynx	* Lymph Node, Bronchial	* Mammary Gland	* Pituitary Gland
* Thymus			

OBSERVATIONS

* Kidney		Infarct	Minimal
* Liver		Hepatocellular Adenoma	Multiple
		Syncytial Alteration	Minimal
[ Hepatocellular Adenoma TGLS = 1-13,2-12 ]			
* Lung			
Note: AREA OF AGONAL HEMORRHAGE AND INCOMPLETE INFLATION.			
* Lymph Node, Mesenteric		Hemorrhage	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Dilatation	Marked
[ Dilatation TGLS = 3-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 263

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-02920

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Brain		Mineralization	Minimal
Harderian Gland		Adenoma	
[ Adenoma TGLS = 3-12 ]			
* Kidney	Renal Tubule	Hyperplasia	Focal, Mild
* Lymph Node, Mesenteric		Hemorrhage	Mild
Preputial Gland		Abscess	Mild
		Dilatation	Mild
[ Dilatation TGLS = 1-13 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Dilatation	Marked
[ Dilatation TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 264

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-02921

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Pancreas	* Pituitary Gland	* Prostate	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy Mineralization Phthisis Bulbi	Mild Focal, Minimal Minimal
* Brain			
Eye			
[ Phthisis Bulbi TGLS = 5-12 ]			
Harderian Gland		Adenoma	
[ Adenoma TGLS = 6-17 ]			
* Kidney	Renal Tubule	Regeneration Syncytial Alteration Alveolar/Bronchiolar Adenoma Alveolar/Bronchiolar Carcinoma	Minimal Mild
* Liver			
* Lung	Alveolar Epith	Hyperplasia	Focal, Minimal
[ Alveolar/Bronchiolar Adenoma TGLS = 3-14 ]			
[ Alveolar/Bronchiolar Carcinoma TGLS = 4-15 ]			
* Nose	Respirat Epith	Hyperplasia Inflammation	Minimal Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Marked
[ Dilatation TGLS = 2-13 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 264

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02921

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Pigmentation

Hemosiderin, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 265

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02922

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland
* Prostate	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	

**MISSING**

* Gallbladder	* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland
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**OBSERVATIONS**

* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Liver		Hepatocellular Adenoma	
Note: FOCUS, TGL6, NOT IN ORIGINAL OR RECUT. [ Hepatocellular Adenoma TGLS = 5-12 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-14 ]			
* Nose		Inflammation	Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Marked
[ Dilatation TGLS = 4-13 ]			
* Skin		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-15 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Dilatation	Moderate
[ Dilatation TGLS = 3-8 ]			

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 266

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-02923

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Epididymis	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex [ Alveolar/Bronchiolar Carcinoma TGLS = 4-13 ]		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
* Adrenal Medulla [ Alveolar/Bronchiolar Carcinoma TGLS = 4-13 ]		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
* Brain		Mineralization	Minimal
* Kidney		Metaplasia	Osseous, Minimal
* Liver		Syncytial Alteration	Minimal
* Lung Note: LUNG/BRONCHI DISRUPTED BY SAMPLING MULTIPLE NEOPLASMS. [ Alveolar/Bronchiolar Carcinoma TGLS = 2-12,3-16 ]		Alveolar/Bronchiolar Carcinoma	
* Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Chronic Active, Minimal
Preputial Gland [ Dilatation TGLS = 1-17 ]		Dilatation	Marked
		Inflammation	Chronic Active, Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle [ Dilatation TGLS = 5-15 ]		Dilatation	Marked
* Skin	Subcut Tiss	Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
		[ Alveolar/Bronchiolar Carcinoma TGLS = 6-14 ]	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 266

**TRT#:** 3  
**DOSE:** 75 PPM

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

**DAY ON TEST:** 725  
**HISTO:** 88-02923

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Spleen	Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal
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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 267

TRT#: 3

SEX: Male

DAY ON TEST: 725

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02924

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	

MISSING

\* Mammary Gland

OBSERVATIONS

* Kidney	Renal Tubule	Infiltration Cellular Regeneration	Lymphocyte, Minimal Minimal
* Liver		Syncytial Alteration	Minimal
* Nose	Olfactory Epi Respirat Epith	Degeneration Hyperplasia	Hyaline, Minimal Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Moderate
* Urinary Bladder		Dilatation	Marked

[ Dilatation TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 268

TRT#: 3

SEX: Male

DAY ON TEST: 701

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02925

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Brain	Mineralization	Minimal
* Liver	Hepatocellular Carcinoma	
	Infarct	Marked
[ Hepatocellular Carcinoma TGLS = 1-12 ]		
[ Infarct TGLS = 2-13 ]		
* Spleen	Hematopoietic Cell Proliferation	Mild
	Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 269

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02926

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Seminal Vesicle	* Skin	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Plasma Cell, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Minimal
Preputial Gland		Dilatation	Moderate
		Inflammation	Chronic Active, Mild
[ Dilatation TGLS = 1-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 270

TRT#: 3

SEX: Male

DAY ON TEST: 725

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02927

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Mild
* Bone		Dysplasia	Mild
Islets, Pancreatic		Hyperplasia	Focal, Mild
* Liver		Syncytial Alteration	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
* Lymph Node, Mesenteric		Angiectasis	Minimal
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 2-12 ]			
* Seminal Vesicle		Dilatation	Moderate
[ Dilatation TGLS = 1-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 271

TRT#: 3

SEX: Male

DAY ON TEST: 725

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02928

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal 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	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Gallbladder	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Clear Cell Focus	
		Fatty Change	Focal, Mild
		Syncytial Alteration	Minimal
[ Clear Cell Focus TGLS = 4-14 ]			
[ Fatty Change TGLS = 3-13 ]			
* Skin	Subcut Tiss	Schwannoma Malignant	Multiple
[ Schwannoma Malignant TGLS = 5-15,1-12 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 272

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-02929

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Thymus
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OBSERVATIONS

* Kidney		Hepatocellular Carcinoma	Metastatic (Liver)
* Liver		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
		Necrosis	Minimal
	[ Hepatocellular Adenoma TGLS = 2-13,3-16 ]		
	[ Hepatocellular Carcinoma TGLS = 1-12 ]		
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
	[ Hepatocellular Carcinoma TGLS = 4-14 ]		
* Lymph Node, Mediastinal		Hemorrhage	Mild
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 273

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02930

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea		

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

* Adrenal Cortex		Hypertrophy	Focal, Mild
* Brain		Mineralization	Minimal
* Liver		Syncytial Alteration	Minimal
* Lung	Alveolus	Alveolar/Bronchiolar Adenoma	Multiple
		Infiltration Cellular	Histiocyte, Mild
		Infiltration Cellular	Lymphocyte, Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 7-15 ]		
Lymph Node	Inguinal	Lymphoma Malignant Lymphocytic	
	[ Lymphoma Malignant Lymphocytic TGLS = 1-14,5-12,2-2,6-3,3.1 ]		
* Lymph Node, Bronchial		Lymphoma Malignant Lymphocytic	
	[ Lymphoma Malignant Lymphocytic TGLS = 1-14,5-12,2-2,6-3,3.1 ]		
* Lymph Node, Mandibular		Lymphoma Malignant Lymphocytic	
	[ Lymphoma Malignant Lymphocytic TGLS = 1-14,5-12,2-2,6-3,3.1 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant Lymphocytic	
	[ Lymphoma Malignant Lymphocytic TGLS = 1-14,5-12,2-2,6-3,3.1 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant Lymphocytic	
	[ Lymphoma Malignant Lymphocytic TGLS = 1-14,2-2,5-12,6-3,3.1 ]		
* Nose		Inflammation	Chronic Active, Minimal
* Salivary Glands		Lymphoma Malignant Lymphocytic	
* Spleen		Lymphoma Malignant Lymphocytic	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 273

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02930

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Lymphoma Malignant Lymphocytic TGLS = 4-13 ]

\* Thymus

Lymphoma Malignant Lymphocytic

\* Urinary Bladder

Dilatation

Marked

[ Dilatation TGLS = 3-8 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 274

TRT#: 3

SEX: Male

DAY ON TEST: 583

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02931

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex

\* Brain

\* Intestine Large, Colon

\* Liver

\* Lymph Node, Mediastinal

\* Parathyroid Gland

\* Seminal Vesicle

\* Testes

\* Adrenal Medulla

\* Epididymis

\* Intestine Small, Duodenum

\* Lung

\* Lymph Node, Mesenteric

\* Pituitary Gland

\* Skin

\* Thyroid Gland

\* Bone

\* Esophagus

\* Kidney

\* Lymph Node, Bronchial

\* Nose

\* Prostate

\* Stomach, Forestomach

\* Trachea

\* Bone Marrow

\* Heart

\* Larynx

\* Lymph Node, Mandibular

\* Pancreas

\* Salivary Glands

\* Stomach, Glandular

MISSING

\* Mammary Gland

AUTO PRECLUDES DIAG.

\* Gallbladder

\* Intestine Small, Jejunum

\* Intestine Large, Cecum

\* Intestine Large, Rectum

\* Intestine Small, Ileum

OBSERVATIONS

\* Spleen

\* Thymus

\* Urinary Bladder

[ Dilatation TGLS = 1-8 ]

Hematopoietic Cell Proliferation

Pigmentation

Atrophy

Dilatation

Minimal

Hemosiderin, Mild

Marked

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 275

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-02932

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal 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	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Gallbladder	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

Harderian Gland [ Adenoma TGLS = 5-16 ]		Adenoma	
Islets, Pancreatic		Hyperplasia	Focal, Mild
* Liver [ Clear Cell Focus TGLS = 4-15 ] [ Hepatocellular Adenoma TGLS = 3-12 ]		Clear Cell Focus Hepatocellular Adenoma	
* Lung Preputial Gland [ Dilatation TGLS = 2-14 ]	Alveolar Epith	Hyperplasia Dilatation Inflammation	Focal, Mild Marked Chronic Active, Minimal
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 276

TRT#: 3

SEX: Male

DAY ON TEST: 726

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02933

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Focal, Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Clear Cell Focus	
		Syncytial Alteration	Minimal
[ Clear Cell Focus TGLS = 1-14 ]			
* Lung	Alveolar Epith	Alveolar/Bronchiolar Carcinoma	
	[ Alveolar/Bronchiolar Carcinoma TGLS = 2-12,13 ]	Hyperplasia	Focal, Minimal
* Lymph Node, Mesenteric		Hemorrhage	Mild
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 277

TRT#: 3

SEX: Male

DAY ON TEST: 725

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02934

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

Islets, Pancreatic	Adenoma	
Preputial Gland	Dilatation	Moderate
[ Dilatation TGLS = 1-12 ]		
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 278

TRT#: 3

SEX: Male

DAY ON TEST: 579

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02935

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood	* Bone
* Bone Marrow	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
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AUTO PRECLUDES DIAG.

\* Intestine Small, Duodenum

OBSERVATIONS

* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
	[ Hepatocellular Adenoma TGLS = 1-5 ]		
	[ Hepatocellular Carcinoma TGLS = 2-5 ]		
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Dilatation	Mild
	[ Dilatation TGLS = 3-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 279

TRT#: 3

SEX: Male

DAY ON TEST: 726

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02936

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Mammary Gland	* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy Mineralization	Minimal Focal, Minimal Mild
* Brain		Regeneration	Minimal
* Kidney	Renal Tubule	Syncytial Alteration	Mild
* Liver		Alveolar/Bronchiolar Adenoma Alveolar/Bronchiolar Carcinoma	
* Lung	Alveolar Epith	Hyperplasia	Focal, Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 3-14 ]		
	[ Alveolar/Bronchiolar Carcinoma TGLS = 4-15 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLS = 2-13 ]		
* Nose	Respirat Epith	Hyperplasia	Minimal
Preputial Gland		Dilatation	Moderate
	[ Dilatation TGLS = 1-12 ]		
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 279

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02936

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 280

TRT#: 3

SEX: Male

DAY ON TEST: 484

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02937

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Epididymis  
\* Kidney  
\* Nose  
\* Salivary Glands  
\* Testes

\* Adrenal Medulla  
\* Esophagus  
\* Larynx  
\* Pancreas  
\* Seminal Vesicle  
\* Thyroid Gland

\* Bone  
\* Heart  
\* Lymph Node, Bronchial  
\* Parathyroid Gland  
\* Stomach, Forestomach  
\* Trachea

\* Brain  
\* Intestine Large, Rectum  
\* Lymph Node, Mandibular  
\* Prostate  
\* Stomach, Glandular  
\* Urinary Bladder

MISSING

\* Intestine Large, Colon

\* Mammary Gland

\* Pituitary Gland

AUTO PRECLUDES DIAG.

\* Bone Marrow  
\* Intestine Small, Ileum  
\* Lymph Node, Mesenteric

\* Gallbladder  
\* Intestine Small, Jejunum  
\* Skin

\* Intestine Large, Cecum  
\* Lung  
\* Spleen

\* Intestine Small, Duodenum  
\* Lymph Node, Mediastinal  
\* Thymus

OBSERVATIONS

\* Liver Hepatocellular Carcinoma

[ Hepatocellular Carcinoma TGLS = 1-5 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 281

TRT#: 3

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-02938

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Larynx	* Lung	* Lymph Node, Bronchial
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Mild
* Intestine Small, Jejunum		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 4-14 ]			
* Kidney		Cyst	Mild
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-12 ]		Syncytial Alteration	Minimal
* Lymph Node, Mandibular		Lymphoma Malignant Mixed	
* Lymph Node, Mesenteric		Lymphoma Malignant Mixed	
* Nose	Respirat Epith	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
[ Lymphoma Malignant Mixed TGLS = 2,3-13 ]		Lymphoma Malignant Mixed	
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 282

TRT#: 3

SEX: Male

DAY ON TEST: 726

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02939

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex

\* Adrenal Medulla

\* Bone

\* Bone Marrow

\* Brain

\* Epididymis

\* Esophagus

\* Gallbladder

\* Heart

\* Intestine Large, Cecum

\* Intestine Large, Colon

\* Intestine Large, Rectum

\* Intestine Small, Duodenum

\* Intestine Small, Ileum

\* Intestine Small, Jejunum

\* Kidney

\* Larynx

\* Liver

\* Lung

\* Lymph Node, Mandibular

\* Lymph Node, Mediastinal

\* Lymph Node, Mesenteric

\* Nose

\* Pancreas

\* Pituitary Gland

\* Prostate

\* Seminal Vesicle

\* Skin

\* Stomach, Forestomach

\* Stomach, Glandular

\* Testes

\* Thymus

\* Thyroid Gland

\* Trachea

MISSING

\* Lymph Node, Bronchial

\* Mammary Gland

\* Parathyroid Gland

OBSERVATIONS

\* Salivary Glands

Inflammation

Chronic, Minimal

\* Spleen

Hematopoietic Cell Proliferation

Minimal

\* Urinary Bladder

Pigmentation

Hemosiderin, Minimal

Dilatation

Marked

[ Dilatation TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 283

TRT#: 3

SEX: Male

DAY ON TEST: 725

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02940

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Gallbladder	* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Liver		Hepatocellular Carcinoma	Multiple
Note: MEDIAN LOBE DISRUPTED BY NEOPLASM. [ Hepatocellular Carcinoma TGLS = 1-12,2-13,14 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	Multiple
		Hepatocellular Carcinoma	Metastatic (Liver)
[ Alveolar/Bronchiolar Carcinoma TGLS = 3-15,4-16 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 284

TRT#: 3

SEX: Male

DAY ON TEST: 307

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 88-02941

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea

MISSING

* Adrenal Cortex	* Adrenal Medulla	* Thymus
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-8,3-8 ]			
* Lymph Node, Bronchial		Inflammation	Chronic Active, Mild
* Nose	Olfactory Epi	Metaplasia	Minimal
* Pancreas		Inflammation	Chronic Active, Moderate
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 4-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 285

TRT#: 3

SEX: Male

DAY ON TEST: 726

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02942

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Epididymis	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Cyst	Mild
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Brain		Mineralization	Moderate
Islets, Pancreatic		Hyperplasia	Focal, Mild
* Kidney		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 3-12 ]			
Lymph Node	Renal	Hyperplasia	Plasma Cell, Moderate
[ Hyperplasia TGLS = 4-14 ]			
* Nose	Respirat Epith	Hyperplasia	Minimal
	Olfactory Epi	Metaplasia	Minimal
* Prostate		Inflammation	Chronic Active, Mild
* Seminal Vesicle		Dilatation	Moderate
[ Dilatation TGLS = 5-13 ]			
* Spleen		Hematopoietic Cell Proliferation	Marked
		Pigmentation	Hemosiderin, Minimal
[ Hematopoietic Cell Proliferation TGLS = 2-5 ]			
* Urinary Bladder	Transit Epithe	Hyperplasia	Moderate
		Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 6-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 285

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02942

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 286

TRT#: 3

SEX: Male

DAY ON TEST: 726

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02943

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Trachea	* Urinary Bladder

**MISSING**

* Mammary Gland	* Parathyroid Gland	* Thymus
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy	Mild Focal, Minimal
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 287

TRT#: 3

SEX: Male

DAY ON TEST: 681

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02944

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

Islets, Pancreatic	Adenoma	
* Liver [ Necrosis TGLS = 3-5 ]	Necrosis	Moderate
* Salivary Glands	Inflammation	Chronic, Minimal
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Hemosiderin, Minimal
* Stomach, Glandular [ Ulcer TGLS = 4-4 ]	Ulcer	Mild
* Thymus	Atrophy	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 288

TRT#: 3

SEX: Male

DAY ON TEST: 725

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02945

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Hypertrophy	Focal, Minimal
* Brain	Mineralization	Mild
* Epididymis	Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 4-9 ]		
Islets, Pancreatic	Hyperplasia	Focal, Mild
* Liver	Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 6-5 ]	Syncytial Alteration	Minimal
Preputial Gland	Dilatation	Minimal
[ Inflammation TGLS = 2-14 ]	Inflammation	Chronic Active, Mild
* Salivary Glands	Inflammation	Chronic, Minimal
* Seminal Vesicle	Dilatation	Marked
[ Dilatation TGLS = 3-12 ]		
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Hemosiderin, Minimal
* Urinary Bladder	Dilatation	Mild
[ Dilatation TGLS = 5-8 ]		

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 288

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 725

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02945

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 289

TRT#: 3

SEX: Male

DAY ON TEST: 647

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02946

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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AUTO PRECLUDES DIAG.

\* Urinary Bladder

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 5-8 ]			
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Carcinoma TGLS = 6-12 ]		Hepatocellular Carcinoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Mild
[ Dilatation TGLS = 1-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 290

TRT#: 3

SEX: Male

DAY ON TEST: 619

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02947

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum		

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Focal, Mild
* Liver		Hepatocellular Carcinoma	Multiple
[ Hepatocellular Carcinoma TGLS = 2-13,3-14 ]			
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
Preputial Gland		Dilatation	Moderate
[ Dilatation TGLS = 1-12 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 291

TRT#: 3

SEX: Male

DAY ON TEST: 457

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02948

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- |                         |                   |
|-------------------------|-------------------|
| * Lymph Node, Bronchial | * Pituitary Gland |
|-------------------------|-------------------|

OBSERVATIONS

- |                           |                |                                  |                   |
|---------------------------|----------------|----------------------------------|-------------------|
| * Brain                   |                | Mineralization                   | Mild              |
| * Liver                   | Centrilobular  | Fatty Change                     | Minimal           |
| * Nose                    | Respirat Epith | Hyperplasia                      | Minimal           |
| Preputial Gland           |                | Dilatation                       | Mild              |
| [ Dilatation TGLS = 2-9 ] |                |                                  |                   |
| * Spleen                  |                | Hematopoietic Cell Proliferation | Minimal           |
|                           |                | Pigmentation                     | Hemosiderin, Mild |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 292

TRT#: 3

SEX: Male

DAY ON TEST: 457

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02949

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Bone                      | * Bone Marrow            | * Epididymis               |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Kidney                  | * Larynx                    | * Lung                   | * Lymph Node, Bronchial    |
| * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Nose                     |
| * Pancreas                | * Parathyroid Gland         | * Pituitary Gland        | * Prostate                 |
| * Seminal Vesicle         | * Skin                      | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Testes                  | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         |                             |                          |                            |

MISSING

- |               |                 |
|---------------|-----------------|
| * Gallbladder | * Mammary Gland |
|---------------|-----------------|

OBSERVATIONS

- |  |             |                                  |                      |
|--|-------------|----------------------------------|----------------------|
| * Adrenal Cortex                         | Subcapsular | Hyperplasia                      | Minimal              |
| * Brain                                  |             | Mineralization                   | Moderate             |
| * Liver                                  |             | Hepatocellular Adenoma           |                      |
| [ Hepatocellular Adenoma TGLS = 1-5,12 ] |             |                                  |                      |
| * Salivary Glands                        |             | Inflammation                     | Chronic, Minimal     |
| * Spleen                                 |             | Hematopoietic Cell Proliferation | Minimal              |
|  |             | Pigmentation                     | Hemosiderin, Minimal |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 293

TRT#: 3

SEX: Male

DAY ON TEST: 457

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02950

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Intestine Small, Ileum	* Mammary Gland
--------------------------	-----------------

OBSERVATIONS

* Brain	Mineralization	Minimal
* Salivary Glands	Inflammation	Chronic, Minimal
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Hemosiderin, Minimal
* Thymus	Hyperplasia	Lymphoid, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 294

TRT#: 3

SEX: Male

DAY ON TEST: 457

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02951

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Mammary Gland

OBSERVATIONS

* Brain		Mineralization	Minimal
* Kidney	Renal Tubule	Regeneration	Minimal
Preputial Gland		Dilatation	Marked
[ Dilatation TGLS = 1-9,9.1 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 295

TRT#: 3

SEX: Male

DAY ON TEST: 457

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02952

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Mammary Gland	* Pituitary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-5 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 296

TRT#: 3

SEX: Male

DAY ON TEST: 457

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02953

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- |                         |                           |                 |
|-------------------------|---------------------------|-----------------|
| * Lymph Node, Bronchial | * Lymph Node, Mediastinal | * Mammary Gland |
|-------------------------|---------------------------|-----------------|

OBSERVATIONS

- |                           |               |                                  |                      |
|---------------------------|---------------|----------------------------------|----------------------|
| * Brain                   |               | Mineralization                   | Minimal              |
| * Liver                   | Centrilobular | Fatty Change                     | Minimal              |
|                           |               | Hepatocellular Adenoma           |                      |
|                           |               | Dilatation                       | Marked               |
| Preputial Gland           |               |                                  |                      |
| [ Dilatation TGLS = 1-9 ] |               |                                  |                      |
| * Spleen                  |               | Hematopoietic Cell Proliferation | Minimal              |
|                           |               | Pigmentation                     | Hemosiderin, Minimal |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 297

TRT#: 3

SEX: Male

DAY ON TEST: 457

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02954

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

* Brain	Mineralization	Mild
* Liver	Mixed Cell Focus	
[ Mixed Cell Focus TGLS = 1-5 ]		
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 298

TRT#: 3

SEX: Male

DAY ON TEST: 457

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02955

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Mammary Gland

OBSERVATIONS

* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver	Centrilobular	Fatty Change	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 299

TRT#: 3

SEX: Male

DAY ON TEST: 457

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02956

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Intestine Small, Ileum	* Mammary Gland
--------------------------	-----------------

OBSERVATIONS

* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver	Centrilobular	Fatty Change	Minimal
		Hepatocellular Adenoma	
	[ Hepatocellular Adenoma TGLS = 2-5 ]		
	Preputial Gland	Dilatation	Mild
	[ Dilatation TGLS = 1-9 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 300

TRT#: 3

SEX: Male

DAY ON TEST: 457

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02957

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Kidney	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea

MISSING

\* Mammary Gland

OBSERVATIONS

* Intestine Small, Ileum [ Adenocarcinoma TGLS = 7-13,8-14,9-15,10-16 ]	Adenocarcinoma	Metastatic (Intestine Small, Jejunum)
* Intestine Small, Jejunum [ Adenocarcinoma TGLS = 7-13,8-14,9-15,10-16,7-13,8-14,9-15,10-16 ] [ Adenocarcinoma TGLS = 7-13,8-14,9-15,10-16,7-13,8-14,9-15,10-16 ]	Adenocarcinoma Adenocarcinoma	Metastatic (Intestine Small, Jejunum)
* Liver [ Inflammation TGLS = 5-12 ] [ Necrosis TGLS = 5-12 ]	Inflammation Necrosis	Chronic Active, Minimal Minimal
* Spleen [ Hematopoietic Cell Proliferation TGLS = 2-5,5.1,5.2 ]	Hematopoietic Cell Proliferation	Marked
* Thymus	Atrophy	Mild
* Thyroid Gland	Ultimobranchial Cyst	
* Urinary Bladder	Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 361

TRT#: 4

DOSE: 150 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 625

HISTO: 88-03018

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	

MISSING

\* Mammary Gland

AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Small, Duodenum	* Intestine Small, Ileum
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OBSERVATIONS

* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Lung		Alveolar/Bronchiolar Adenoma	
Lymph Node	Inguinal	Lymphoma Malignant Mixed	
	Lumbar	Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 1-12,4-14,3-3 ]		
	[ Lymphoma Malignant Mixed TGLS = 1-12,4-14,3-3 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 1-12,4-14,3-3 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 1-12,4-14,3-3 ]		
Preputial Gland		Dilatation	Marked
	[ Dilatation TGLS = 2-13 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal
* Thymus		Lymphoma Malignant Mixed	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 361

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 625

**DOSE:** 150 PPM

**DISP:** Natural Death

**HISTO:** 88-03018

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 362

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03019

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea		

MISSING

* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Brain		Mineralization	Mild
* Liver		Syncytial Alteration	Minimal
* Nose	Respirat Epith	Hyperplasia	Minimal
	Olfactory Epi	Metaplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Moderate
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 363

TRT#: 4

SEX: Male

DAY ON TEST: 726

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03020

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Larynx	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy	Mild Focal, Minimal
* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma Hyperplasia	Focal, Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal
* Thymus		Ectopic Parathyroid Gland	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 364

TRT#: 4

SEX: Male

DAY ON TEST: 640

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03021

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Testes	* Thyroid Gland	* Trachea

MISSING

* Mammary Gland	* Parathyroid Gland
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AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Small, Ileum	* Intestine Small, Jejunum
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OBSERVATIONS

* Kidney	Inflammation	Acute, Mild
* Liver	Hepatocellular Adenoma	
	Hepatocellular Carcinoma	
	Necrosis	Mild
[ Hepatocellular Adenoma TGLS = 1-5 ]		
[ Hepatocellular Carcinoma TGLS = 3-13 ]		
Penis	Inflammation	Chronic Active, Mild
[ Inflammation TGLS = 2-12 ]		
* Prostate	Inflammation	Acute, Mild
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Hemosiderin, Minimal
* Stomach, Glandular	Necrosis	Minimal
* Thymus	Atrophy	Mild
* Urinary Bladder	Inflammation	Acute, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 365

TRT#: 4

DOSE: 150 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-03022

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
	Alveolar Epith	Hyperplasia	Focal, Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-12,3-13 ]		
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 366

TRT#: 4

SEX: Male

DAY ON TEST: 726

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03023

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy	Minimal Focal, Minimal
* Kidney	Renal Tubule	Hyperplasia	Focal, Minimal
* Liver		Cytologic Alterations	Mild
* Lung	Alveolar Epith	Hyperplasia	Focal, Mild
* Nose		Exudate	Serous, Minimal
* Pancreas		Inflammation	Chronic, Minimal
Preputial Gland		Dilatation	Marked
[ Dilatation TGLS = 1-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 367

TRT#: 4

SEX: Male

DAY ON TEST: 575

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03024

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Larynx	* Lymph Node, Bronchial	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Small, Jejunum
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
		Hypertrophy	Focal, Minimal
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver	Centrilobular	Hemangiosarcoma	
		Necrosis	Mild
[ Hemangiosarcoma TGLS = 4-5 ]			
Preputial Gland		Dilatation	Marked
		Inflammation	Chronic Active, Mild
[ Dilatation TGLS = 1-9 ]			
* Skin		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 368

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-023025

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea			

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Epididymis		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 3-9 ]			
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
Preputial Gland		Dilatation	Mild
[ Dilatation TGLS = 2-13 ]		Inflammation	Chronic Active, Mild
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 369

TRT#: 4

SEX: Male

DAY ON TEST: 443

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03026

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Epididymis	* Esophagus
* Gallbladder	* Heart	* Liver	* Lung
* Lymph Node, Bronchial	* Nose	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Testes
* Thymus	* Thyroid Gland		

MISSING

* Lymph Node, Mediastinal	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Adrenal Cortex	* Adrenal Medulla	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Lymph Node, Mesenteric	* Pancreas	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

INSUFFICIENT TISSUE

\* Larynx

OBSERVATIONS

* Brain		Mineralization	Minimal
* Kidney		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 4-8 ]			
Lymph Node	Lumbar	Hyperplasia	Lymphoid, Moderate
	Inguinal	Pigmentation	Mild
[ Hyperplasia TGLS = 5-12 ]			
[ Pigmentation TGLS = 1-7 ]			
* Lymph Node, Mandibular		Pigmentation	Hemosiderin, Mild
[ Pigmentation TGLS = 1-7 ]			
* Skin		Inflammation	Chronic Active, Marked
		Ulcer	Marked
[ Inflammation TGLS = 6-9 ]			
[ Ulcer TGLS = 6-9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 370

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03027

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea			

MISSING

\* Mammary Gland

OBSERVATIONS

* Brain		Mineralization	Minimal
Harderian Gland		Adenoma	
[ Adenoma TGLS = 3-15 ]			
* Kidney	Renal Tubule	Cyst	Mild
		Hyperplasia	Focal, Minimal
* Liver	Centrilobular	Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
[ Hepatocellular Adenoma TGLS = 2-14 ]		Necrosis	Mild
[ Hepatocellular Carcinoma TGLS = 1-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 371

TRT#: 4

DOSE: 150 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 553

HISTO: 88-03028

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Mammary Gland

OBSERVATIONS

* Heart		Degeneration	Minimal
* Liver		Hemangiosarcoma	
		Necrosis	Moderate
	[ Hemangiosarcoma TGLS = 2-12,3-5,4-12 ]		
* Lung		Leukocytosis	Mild
* Lymph Node, Mediastinal		Hemorrhage	Mild
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLS = 5-12 ]		
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Hematopoietic Cell Proliferation Granulocytic	Moderate
		Pigmentation	Hemosiderin, Minimal
* Stomach, Glandular		Necrosis	Minimal
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 372

TRT#: 4

SEX: Male

DAY ON TEST: 668

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03029

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Intestine Large, Colon	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland	* Pituitary Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum		

OBSERVATIONS

* Brain		Mineralization	Mild
* Heart		Thrombosis	Mild
* Kidney	Renal Tubule	Dilatation	Mild
* Liver		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
		Necrosis	Moderate
	[ Hepatocellular Carcinoma TGLS = 1-5 ]		
* Lung		Congestion	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Stomach, Forestomach		Squamous Cell Carcinoma	
	[ Squamous Cell Carcinoma TGLS = 2-4 ]		
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 373

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03030

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea			

MISSING

* Lymph Node, Mediastinal	* Mammary Gland	* Pituitary Gland
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OBSERVATIONS

* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
		Syncytial Alteration	Minimal
[ Hepatocellular Adenoma TGLS = 2-12,13 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Urinary Bladder		Dilatation	Marked
[ Dilatation TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 374

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03031

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Epididymis	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lung	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
Penis	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea		

MISSING

* Adrenal Cortex	* Adrenal Medulla	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Mammary Gland	* Parathyroid Gland	* Thymus	

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Abscess	Marked
[ Abscess TGLS = 3-14,4-15,5-14 ]			
* Liver		Abscess	Mild
		Basophilic Focus	
		Inflammation	Chronic, Minimal
[ Abscess TGLS = 3-14,6-5 ]			
[ Basophilic Focus TGLS = 7-5 ]			
* Nose		Inflammation	Chronic Active, Minimal
* Pancreas		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
[ Hematopoietic Cell Proliferation TGLS = 2-12 ]			
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Urinary Bladder		Dilatation	Moderate
[ Dilatation TGLS = 8-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 375

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03032

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea

MISSING

* Intestine Small, Jejunum	* Lymph Node, Mediastinal	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Basophilic Focus	
		Hepatocellular Adenoma	
		Infarct	Moderate
		Inflammation	Chronic, Minimal
		[ Basophilic Focus TGLS = 4-14 ]	
		[ Hepatocellular Adenoma TGLS = 2-12 ]	
		[ Infarct TGLS = 3-13 ]	
* Lung	Alveolar Epith	Hyperplasia	Focal, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Urinary Bladder		Dilatation	Moderate
		[ Dilatation TGLS = 1-8 ]	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 376

TRT#: 4

DOSE: 150 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 558

HISTO: 88-03033

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea			

MISSING

* Mammary Gland	* Thymus
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia Infarct	Moderate Moderate
* Brain		Mineralization	Minimal
* Kidney		Cyst Hydronephrosis Inflammation	Mild Mild Chronic Active, Moderate
[ Cyst TGLS = 10-12 ] [ Hydronephrosis TGLS = 9-8 ] [ Inflammation TGLS = 9-8 ]			
* Liver		Hepatocellular Carcinoma Infarct	Moderate
[ Hepatocellular Carcinoma TGLS = 7-5 ] [ Infarct TGLS = 8-12 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
[ Alveolar/Bronchiolar Carcinoma TGLS = 5-12 ]			
* Seminal Vesicle		Dilatation	Moderate
[ Dilatation TGLS = 4-9 ]			
* Skin		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 2-9 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 376	<b>TRT#:</b> 4	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 558
	<b>DOSE:</b> 150 PPM	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> 88-03033

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Spleen	Hematopoietic Cell Proliferation	Moderate
	Hematopoietic Cell Proliferation Granulocytic Pigmentation	Moderate
		Hemosiderin, Mild
[ Hematopoietic Cell Proliferation TGLS = 6-5 ]		
* Urinary Bladder	Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 3-8 ]		

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 377

TRT#: 4

DOSE: 150 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-03034

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea			

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Gallbladder			
Note: NODULE IS NORMAL FAT.			
* Liver		Syncytial Alteration	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 4-14 ]			
* Nose		Inflammation	Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Dilatation	Marked
[ Dilatation TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 378

TRT#: 4

SEX: Male

DAY ON TEST: 541

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03035

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Esophagus  
\* Larynx  
\* Lymph Node, Mediastinal  
\* Salivary Glands  
\* Trachea

\* Adrenal Medulla  
\* Heart  
\* Lung  
\* Nose  
\* Seminal Vesicle  
\* Urinary Bladder

\* Bone  
\* Intestine Large, Rectum  
\* Lymph Node, Bronchial  
\* Parathyroid Gland  
\* Testes

\* Brain  
\* Kidney  
\* Lymph Node, Mandibular  
\* Prostate  
\* Thyroid Gland

MISSING

\* Mammary Gland

\* Pituitary Gland

AUTO PRECLUDES DIAG.

\* Bone Marrow  
\* Intestine Large, Colon  
\* Lymph Node, Mesenteric  
\* Stomach, Forestomach

Coagulating Gland  
\* Intestine Small, Duodenum  
\* Pancreas  
\* Stomach, Glandular

\* Gallbladder  
\* Intestine Small, Ileum  
\* Skin  
\* Thymus

\* Intestine Large, Cecum  
\* Intestine Small, Jejunum  
\* Spleen

OBSERVATIONS

\* Epididymis  
[ Inflammation TGLS = 3-9 ]

Inflammation

Chronic Active, Marked

\* Liver  
[ Hepatocellular Adenoma TGLS = 4-5 ]

Hepatocellular Adenoma

PRIMARY CAUSE OF DEATH

-

Animal Note: MILD TO MARKED AUTOLYSIS IN MOST TISSUES.

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 379

TRT#: 4

SEX: Male

DAY ON TEST: 235

DOSE: 150 PPM

DISP: Accidentally Killed

HISTO: 88-03036

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Epididymis
* Esophagus	* Heart	* Intestine Large, Rectum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Nose	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Mammary Gland

AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Pancreas
* Stomach, Forestomach	* Stomach, Glandular		

OBSERVATIONS

* Bone		Fracture	
Note: MULTIPLE BONES IN NASAL SECTION. [ Fracture TGLS = 12-10 ]			
* Brain		Mineralization	Minimal
* Lung			
Note: HYPOSTATIC CONGESTION AND AUTOLYSIS PRESENT.			
Mesentery	Fat	Necrosis	Mild
[ Necrosis TGLS = 11-12 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 380      **TRT#:** 4      **SEX:** Male      **DAY ON TEST:** 724  
**DOSE:** 150 PPM      **DISP:** Natural Death      **HISTO:** 88-03037

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea

**MISSING**

* Lymph Node, Bronchial	* Mammary Gland	* Thymus
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**OBSERVATIONS**

* Brain		Mineralization	Minimal
* Epididymis		Inflammation	Chronic Active, Mild
* Kidney	Renal Tubule	Dilatation	Mild
[ Dilatation TGLS = 3,4-8 ]			
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-12 ]		Syncytial Alteration	Minimal
* Prostate		Inflammation	Acute, Moderate
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen	Lymph Follic	Atrophy	Moderate
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Dilatation	Moderate
[ Dilatation TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 381

TRT#: 4

DOSE: 150 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 588

HISTO: 88-03038

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Gallbladder
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Epididymis		Inflammation	Chronic Active, Mild
* Kidney	Renal Tubule	Dilatation	Minimal
	Renal Tubule	Infiltration Cellular	Lymphocyte, Mild
		Regeneration	Minimal
* Liver		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
		Necrosis	Mild
	[ Hepatocellular Adenoma TGLS = 3-13 ]		
	[ Hepatocellular Carcinoma TGLS = 1-12 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 382

TRT#: 4

SEX: Male

DAY ON TEST: 726

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03039

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Bone                     | * Bone Marrow             |
| * Brain                     | * Epididymis             | * Esophagus                | * Gallbladder             |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  |
| * Liver                     | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mesenteric    | * Pancreas               | * Parathyroid Gland        | * Pituitary Gland         |
| * Prostate                  | * Seminal Vesicle        | * Skin                     | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Testes                 | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        |                            |                           |

MISSING

- |                           |                 |
|---------------------------|-----------------|
| * Lymph Node, Mediastinal | * Mammary Gland |
|---------------------------|-----------------|

OBSERVATIONS

- |   |                                  |                         |
|---|----------------------------------|-------------------------|
| Harderian Gland<br>[ Adenoma TGLS = 4-12 ]      | Adenoma                          |                         |
| * Kidney  | Infiltration Cellular            | Lymphocyte, Minimal     |
| * Lung<br>Note: AGONAL HEMORRHAGE.              |                                  |                         |
| * Nose  | Inflammation                     | Chronic Active, Minimal |
| * Salivary Glands                               | Inflammation                     | Chronic, Minimal        |
| * Spleen  | Hematopoietic Cell Proliferation | Moderate                |
|   | Pigmentation                     | Hemosiderin, Minimal    |
| [ Hematopoietic Cell Proliferation TGLS = 2-5 ] |                                  |                         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 383

TRT#: 4

SEX: Male

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03040

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Liver		Inflammation	Chronic, Minimal
	Hepatocyte	Necrosis	Minimal
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
Preputial Gland		Dilatation	Marked
[ Dilatation TGLS = 2-13 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 384

TRT#: 4

SEX: Male

DAY ON TEST: 726

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03041

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lymph Node, Bronchial	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea	* Urinary Bladder	

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	Focal, Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-12 ]	Hyperplasia	
* Lymph Node, Mandibular		Lymphoma Malignant Lymphocytic	
* Lymph Node, Mediastinal		Lymphoma Malignant Lymphocytic	
* Lymph Node, Mesenteric		Lymphoma Malignant Lymphocytic	
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Moderate
	[ Dilatation TGLS = 1-9 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thymus		Cyst	Mild
* Thyroid Gland	Follicular Cel	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 385

TRT#: 4

SEX: Male

DAY ON TEST: 726

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03042

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Esophagus  
\* Intestine Large, Colon  
\* Intestine Small, Jejunum  
\* Lymph Node, Mesenteric  
\* Salivary Glands  
\* Stomach, Glandular

\* Adrenal Medulla  
\* Gallbladder  
\* Intestine Large, Rectum  
\* Larynx  
\* Nose  
\* Seminal Vesicle  
\* Testes

\* Bone  
\* Heart  
\* Intestine Small, Duodenum  
\* Lymph Node, Mandibular  
\* Pancreas  
\* Skin  
\* Trachea

\* Epididymis  
\* Intestine Large, Cecum  
\* Intestine Small, Ileum  
\* Lymph Node, Mediastinal  
\* Prostate  
\* Stomach, Forestomach

MISSING

\* Lymph Node, Bronchial  
\* Thymus

\* Mammary Gland

\* Parathyroid Gland

\* Pituitary Gland

OBSERVATIONS

\* Bone Marrow  
\* Brain  
\* Kidney  
\* Liver

Myeloid Cell

Hyperplasia  
Mineralization  
Inflammation  
Hepatocellular Adenoma  
Hepatocellular Carcinoma  
Inflammation  
Syncytial Alteration

Mild  
Minimal  
Chronic Active, Mild  
  
Chronic, Minimal  
Minimal

[ Hepatocellular Adenoma TGLS = 6-16 ]  
[ Hepatocellular Carcinoma TGLS = 5-12,13 ]

\* Lung

[ Alveolar/Bronchiolar Adenoma TGLS = 3,4-14,15 ]  
[ Hepatocellular Carcinoma TGLS = 2-6 ]

Alveolar/Bronchiolar Adenoma  
Hepatocellular Carcinoma

Multiple  
Metastatic (Liver)

Preputial Gland

[ Abscess TGLS = 1-17 ]

Abscess

Moderate

\* Spleen

Hematopoietic Cell Proliferation  
Pigmentation

Marked  
Hemosiderin, Minimal

\* Thyroid Gland

Follicular Cel

Hyperplasia  
Inflammation

Focal, Minimal  
Chronic Active, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 385

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 150 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-03042

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 386

TRT#: 4

DOSE: 150 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 725

HISTO: 88-03043

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Carcinoma	
		Sarcoma	Metastatic (Skin)
		[ Alveolar/Bronchiolar Carcinoma TGLS = 3-6 ]	
		[ Sarcoma TGLS = 2,4,5-12,18,6 ]	
* Nose	Respirat Epith	Hyperplasia	Minimal
Preputial Gland		Dilatation	Marked
		[ Dilatation TGLS = 1-19 ]	
* Salivary Glands		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Moderate
		[ Dilatation TGLS = 8-9 ]	
* Skin	Subcut Tiss	Sarcoma	
		Ulcer	Moderate
		[ Sarcoma TGLS = 9-16,17 ]	
		[ Ulcer TGLS = 10-20 ]	
* Spleen		Pigmentation	Hemosiderin, Minimal
		Sarcoma	Metastatic (Skin)
		[ Sarcoma TGLS = 6-13 ]	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 386	<b>TRT#:</b> 4	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 725
	<b>DOSE:</b> 150 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 88-03043

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 387

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03044

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy Mineralization	Minimal Focal, Mild Mild
* Brain		Infiltration Cellular	Lymphocyte, Minimal
* Kidney		Syncytial Alteration	Minimal
* Liver		Alveolar/Bronchiolar Adenoma	
* Lung	Alveolar Epith	Hyperplasia	Focal, Mild
[ Hyperplasia TGLS = 2-13 ]			
* Nose	Respirat Epith	Hyperplasia Dilatation	Minimal Marked
Preputial Gland			
[ Dilatation TGLS = 1-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 388

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03045

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Trachea	* Urinary Bladder		

**MISSING**

* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland	* Thymus
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Lung	[ Alveolar/Bronchiolar Adenoma TGLS = 2-13 ]	Alveolar/Bronchiolar Adenoma	
* Nose	Respirat Epith	Hyperplasia	Minimal
	Respirat Epith	Ulcer	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 389

TRT#: 4

SEX: Male

DAY ON TEST: 558

DOSE: 150 PPM

DISP: Moribund Sacrifice

HISTO: 88-03046

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
		Alveolar/Bronchiolar Carcinoma	
	Alveolus	Infiltration Cellular	Histiocyte, Mild
		Infiltration Cellular	Lymphocyte, Minimal
		[ Alveolar/Bronchiolar Adenoma TGLS = 2-12 ]	
		[ Alveolar/Bronchiolar Carcinoma TGLS = 1-12 ]	
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 390

TRT#: 4

SEX: Male

DAY ON TEST: 718

DOSE: 150 PPM

DISP: Moribund Sacrifice

HISTO: 88-03047

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea			

MISSING

* Mammary Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Epididymis		Inflammation	Chronic Active, Moderate
* Kidney		Hydronephrosis	Mild
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 1-5,12 ]			
* Lymph Node, Mesenteric		Hemorrhage	Mild
* Nose		Inflammation	Chronic Active, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen	Lymph Follic	Atrophy	Moderate
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Dilatation	Marked
[ Dilatation TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 391

TRT#: 4

SEX: Male

DAY ON TEST: 316

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03048

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pancreas	* Pituitary Gland
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Gallbladder		Inflammation	Chronic Active, Minimal
* Kidney		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 3-8 ]			
* Liver		Hematopoietic Cell Proliferation	Minimal
Lymph Node	Lumbar	Hyperplasia	Plasma Cell, Moderate
[ Hyperplasia TGLS = 4-12 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Prostate		Inflammation	Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin	Prepuce	Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-13 ]			
* Spleen		Hematopoietic Cell Proliferation	Marked
		Pigmentation	Hemosiderin, Mild
[ Hematopoietic Cell Proliferation TGLS = 2-5 ]			
* Thymus		Atrophy	Mild
* Urinary Bladder		Inflammation	Chronic Active, Marked

PRIMARY CAUSE OF DEATH

-

Animal Note: ZYMBAL'S GLANDS AT NECROPSY WERE NORMAL

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 391

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 316

**DOSE:** 150 PPM

**DISP:** Natural Death

**HISTO:** 88-03048

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: LACRIMAL GLANDS MICROSCOPICALLY.

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 392

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03049

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Epididymis		Inflammation	Chronic Active, Moderate
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Nose		Inflammation	Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 393

TRT#: 4

SEX: Male

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03050

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mediastinal	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
Harderian Gland		Adenocarcinoma	
[ Adenocarcinoma TGLS = 4-15 ]			
* Kidney	Renal Tubule	Infiltration Cellular	Lymphocyte, Minimal
		Regeneration	Minimal
* Liver		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
[ Hepatocellular Adenoma TGLS = 1-13 ]			
[ Hepatocellular Carcinoma TGLS = 2-12 ]			
* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	
		Hyperplasia	Focal, Mild
[ Alveolar/Bronchiolar Adenoma TGLS = 3-14 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Moderate
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 393

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 150 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-03050

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 394

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03051

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Prostate	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

**MISSING**

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Adenoma	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 395

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03052

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	

MISSING

\* Mammary Gland

OBSERVATIONS

* Epididymis		Inflammation	Chronic Active, Mild
* Kidney		Hydronephrosis	Marked
		Infiltration Cellular	Lymphocyte, Mild
	[ Hydronephrosis TGLS = 3,4-8 ]		
* Liver		Hepatocellular Adenoma	
		Syncytial Alteration	Minimal
	[ Hepatocellular Adenoma TGLS = 2-12 ]		
* Lung	Alveolar Epith	Hyperplasia	Focal, Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Adenoma	
* Urinary Bladder		Dilatation	Moderate
	[ Dilatation TGLS = 1-8 ]		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 396

TRT#: 4

SEX: Male

DAY ON TEST: 726

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03053

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Mammary Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Kidney	Renal Tubule	Dilatation	Mild
	Renal Tubule	Infiltration Cellular	Lymphocyte, Moderate
		Regeneration	Mild
* Liver	Bile Duct	Hepatocellular Adenoma	
		Hyperplasia	Mild
		Hyperplasia	Marked
		Inflammation	Chronic, Mild
		Mixed Cell Focus	
	Periportal	Vacuolization Cytoplasmic	Moderate
	[ Hepatocellular Adenoma TGLS = 2-12 ]		
	[ Hyperplasia TGLS = 2-12 ]		
	[ Hyperplasia TGLS = 2-12 ]		
* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	
		Hyperplasia	Focal, Minimal
	[ Alveolar/Bronchiolar Adenoma TGLS = 3-15 ]		
* Nose	Olfactory Epi	Atrophy	Minimal
		Exudate	Serous, Minimal
* Pancreas		Inflammation	Chronic, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 396	<b>TRT#:</b> 4	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 726
	<b>DOSE:</b> 150 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 88-03053

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Preputial Gland [ Dilatation TGLS = 1-14 ]	Dilatation	Marked
* Spleen	Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Minimal
* Stomach, Glandular	Dysplasia	Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 397

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03054

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney	Renal Tubule	Dilatation	Minimal
		Hydronephrosis	Minimal
		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Cytologic Alterations	Moderate
[ Cytologic Alterations TGLS = 1-12 ]			
* Lymph Node, Mesenteric		Hemorrhage	Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Inflammation	Chronic Active, Marked

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 398

TRT#: 4

SEX: Male

DAY ON TEST: 693

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03055

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Heart	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea			

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Large, Cecum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Urinary Bladder			

OBSERVATIONS

* Brain		Mineralization	Mild
* Kidney		Hydronephrosis	Mild
		Infiltration Cellular	Lymphocyte, Minimal
[ Hydronephrosis TGLS = 3-8 ]			
* Liver		Syncytial Alteration	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
Lymph Node	Lumbar	Hemorrhage	Mild
	Lumbar	Hyperplasia	Histiocytic, Mild
[ Hemorrhage TGLS = 2-12 ]			
[ Hyperplasia TGLS = 2-12 ]			
* Lymph Node, Mesenteric		Hemorrhage	Mild
[ Hemorrhage TGLS = 2-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 399

TRT#: 4

SEX: Male

DAY ON TEST: 552

DOSE: 150 PPM

DISP: Moribund Sacrifice

HISTO: 88-03056

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Epididymis
* Esophagus	* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea		

MISSING

* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Brain		Mineralization	Mild
* Heart	Artery	Inflammation	Chronic Active, Mild
* Liver		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
		Syncytial Alteration	Mild
		[ Hepatocellular Adenoma TGLS = 4-5 ]	
		[ Hepatocellular Carcinoma TGLS = 3-12 ]	
* Lung	Alveolar Epith	Hyperplasia	Focal, Moderate
		[ Hyperplasia TGLS = 6-12 ]	
Penis		Inflammation	Chronic Active, Marked
		[ Inflammation TGLS = 1-12 ]	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Moderate
* Thymus		Atrophy	Moderate
* Urinary Bladder		Inflammation	Chronic Active, Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 400

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03057

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Focal, Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
* Lymph Node, Mesenteric		Hemorrhage	Mild
[ Hemorrhage TGLS = 1-7 ]			
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Adenoma	
	Follicular Cel	Hyperplasia	Focal, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 401

TRT#: 4

SEX: Male

DAY ON TEST: 726

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03058

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney	Renal Tubule	Regeneration	Minimal
* Liver		Hepatocellular Adenoma	Multiple
	[ Hepatocellular Adenoma TGLS = 3,4-12,13 ]		
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
	[ Alveolar/Bronchiolar Adenoma TGLS = 1,2-15,16 ]	Infiltration Cellular	Lymphocyte, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 402

TRT#: 4

DOSE: 150 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 692

HISTO: 88-03059

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Esophagus	* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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OBSERVATIONS

* Brain		Mineralization	Mild
* Epididymis		Inflammation	Chronic Active, Minimal
* Heart		Cardiomyopathy	Minimal
* Liver		Hemangiosarcoma	Multiple
		Proliferation Connective Tissue	
Note: ADHESION. [ Hemangiosarcoma TGLS = 2,3-5 ]			
* Lung	Alveolar Epith	Hyperplasia	Focal, Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Nose		Inflammation	Chronic Active, Minimal
* Pancreas		Proliferation Connective Tissue	
Note: ADHESION.			
* Seminal Vesicle		Hyperplasia	Moderate
		Inflammation	Chronic Active, Moderate
* Spleen		Hematopoietic Cell Proliferation	Marked
		Pigmentation	Hemosiderin, Minimal
* Testes	Seminif Tub	Degeneration	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 403

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03060

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Mammary Gland	* Parathyroid Gland
* Pituitary Gland			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Adenoma	
Islets, Pancreatic		Hypertrophy	Focal, Minimal
* Kidney		Hyperplasia	Focal, Mild
* Lung		Infiltration Cellular	Lymphocyte, Minimal
	Alveolar Epith	Alveolar/Bronchiolar Adenoma	Multiple
	[ Alveolar/Bronchiolar Adenoma TGLS = 3-13 ]	Hyperplasia	Focal, Moderate
Preputial Gland		Dilatation	Marked
	[ Dilatation TGLS = 1-12 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 404

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03061

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea		

MISSING

\* Mammary Gland

OBSERVATIONS

* Kidney		Infarct	Minimal
Preputial Gland		Dilatation	Marked
[ Dilatation TGLS = 1-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Bilateral, Follicular Cel	Adenoma	
* Urinary Bladder		Dilatation	Moderate
[ Dilatation TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 405

TRT#: 4

SEX: Male

DAY ON TEST: 726

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03062

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Prostate	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Pituitary Gland	
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OBSERVATIONS

* Brain		Mineralization	Mild
Harderian Gland		Adenoma	
[ Adenoma TGLS = 1-12 ]			
* Liver		Syncytial Alteration	Minimal
* Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Chronic Active, Minimal
	Respirat Epith	Metaplasia	Squamous, Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 406

TRT#: 4

SEX: Male

DAY ON TEST: 100

DOSE: 150 PPM

DISP: Accidentally Killed

HISTO: 88-03063

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Ileum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Thymus
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Large, Cecum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
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OBSERVATIONS

Eye [ Phthisis Bulbi TGLS = 4-12 ]		Phthisis Bulbi	
* Nose		Inflammation	Chronic Active, Minimal
* Pancreas [ Cyst TGLS = 1-2 ]	Duct	Cyst	Moderate
* Skin [ Edema TGLS = 3-10 ] [ Hemorrhage TGLS = 3-10 ]	Subcut Tiss Subcut Tiss	Edema Hemorrhage	Mild Moderate
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 407

TRT#: 4

DOSE: 150 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 556

HISTO: 88-03064

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Nose
* Pancreas	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea			

MISSING

* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Brain		Mineralization	Mild
* Kidney		Inflammation	Acute, Mild
[ Inflammation TGLS = 5-8 ]			
* Lung			
Note: AGONAL HEMORRHAGE.			
Lymph Node	Iliac	Inflammation	Chronic Active, Moderate
	Inguinal	Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 1-13,7-13 ]			
[ Inflammation TGLS = 1-13,7-13 ]			
* Lymph Node, Mesenteric		Hemorrhage	Mild
* Prostate		Inflammation	Chronic Active, Moderate
* Skin		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 4-12 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Mild
* Thymus		Atrophy	Mild
* Urinary Bladder		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 3-8 ]			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 407

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 556

**DOSE:** 150 PPM

**DISP:** Natural Death

**HISTO:** 88-03064

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 408

TRT#: 4

SEX: Male

DAY ON TEST: 725

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03065

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Mammary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
Eye	Lens	Cataract	Minimal
	Cornea	Inflammation	Chronic Active, Moderate
[ Cataract TGLS = 3-15 ]			
[ Inflammation TGLS = 3-15 ]			
Harderian Gland		Adenoma	
[ Adenoma TGLS = 4-12 ]			
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Syncytial Alteration	Mild
* Nose		Inflammation	Chronic Active, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
		Inflammation	Chronic Active, Marked
Preputial Gland			
[ Inflammation TGLS = 1-13 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Skin	Subcut Tiss	Granuloma	Moderate
[ Granuloma TGLS = 2-14 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:04  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 408

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 725

**DOSE:** 150 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-03065

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 409

TRT#: 4

DOSE: 150 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 726

HISTO: 88-03066

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Mammary Gland

OBSERVATIONS

* Brain		Mineralization	Mild
Harderian Gland		Adenoma	
[ Adenoma TGLS = 5-15 ]			
* Kidney	Renal Tubule	Dilatation	Moderate
		Infiltration Cellular	Lymphocyte, Mild
[ Dilatation TGLS = 1-13 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Focal, Mild
[ Alveolar/Bronchiolar Adenoma TGLS = 3-14 ]			
[ Alveolar/Bronchiolar Carcinoma TGLS = 2-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 410

TRT#: 4

DOSE: 150 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 534

HISTO: 88-03067

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea

MISSING

\* Mammary Gland

AUTO PRECLUDES DIAG.

\* Intestine Small, Duodenum

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 3-8,8.1 ]			
* Lung			
Note: AGONAL HEMORRHAGE.			
* Lymph Node, Mesenteric		Hemorrhage	Moderate
[ Hemorrhage TGLS = 6-7 ]			
Penis		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-13 ]			
* Prostate		Inflammation	Chronic Active, Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Mild
[ Hematopoietic Cell Proliferation TGLS = 2-5 ]			
* Urinary Bladder		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 4-8,8.1 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 411

TRT#: 4

SEX: Male

DAY ON TEST: 300

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03068

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Epididymis
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Colon
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

MISSING

\* Mammary Gland

AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mesenteric		

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Brain		Mineralization	Minimal
* Kidney		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-8 ]			
* Lymph Node, Mandibular		Hemorrhage	Marked
* Lymph Node, Mediastinal		Hyperplasia	Plasma Cell, Moderate
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Mild
[ Hematopoietic Cell Proliferation TGLS = 2-5 ]			
* Urinary Bladder		Inflammation	Chronic Active, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 412

TRT#: 4

SEX: Male

DAY ON TEST: 96

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03069

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Mammary Gland

**AUTO PRECLUDES DIAG.**

\* Intestine Small, Ileum

**OBSERVATIONS**

* Lymph Node, Bronchial	Infiltration Cellular	Histiocyte, Moderate
* Spleen	Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 413

TRT#: 4

SEX: Male

DAY ON TEST: 457

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03070

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	

MISSING

\* Mammary Gland

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Liver		Hepatocellular Adenoma	
	[ Hepatocellular Adenoma TGLS = 1-12 ]		
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Dilatation	Mild
	[ Dilatation TGLS = 2-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 414

TRT#: 4

SEX: Male

DAY ON TEST: 457

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03071

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                           |                            |                           |
|-----------------------------|---------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla         | * Bone                     | * Bone Marrow             |
| * Brain                     | * Epididymis              | * Esophagus                | * Gallbladder             |
| * Heart                     | * Intestine Large, Cecum  | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum  | * Intestine Small, Jejunum | * Kidney                  |
| * Larynx                    | * Liver                   | * Lung                     | * Lymph Node, Bronchial   |
| * Lymph Node, Mandibular    | * Lymph Node, Mediastinal | * Nose                     | * Pancreas                |
| * Parathyroid Gland         | * Pituitary Gland         | * Prostate                 | * Salivary Glands         |
| * Seminal Vesicle           | * Skin                    | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Testes                    | * Thymus                  | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           |                           |                            |                           |

MISSING

- \* Mammary Gland

OBSERVATIONS

- |                           |                                  |                      |
|---------------------------|----------------------------------|----------------------|
| * Lymph Node, Mesenteric  | Hyperplasia                      | Lymphoid, Moderate   |
| Preputial Gland           | Dilatation                       | Moderate             |
| [ Dilatation TGLS = 1-9 ] |                                  |                      |
| * Spleen                  | Hematopoietic Cell Proliferation | Minimal              |
|                           | Pigmentation                     | Hemosiderin, Minimal |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 415

TRT#: 4

SEX: Male

DAY ON TEST: 457

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03072

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Liver		Hepatocellular Adenoma	Multiple
	[ Hepatocellular Adenoma TGLS = 3,4-12 ]		
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
Preputial Gland		Inflammation	Chronic Active, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 416

TRT#: 4

DOSE: 150 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 296

HISTO: 88-03073

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Testes	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Thymus
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AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Pancreas	* Stomach, Forestomach
* Stomach, Glandular	* Urinary Bladder		

OBSERVATIONS

* Brain		Mineralization	Minimal
* Nose	Glands	Adenoma	
Penis		Congestion	Moderate
[ Congestion TGLS = 2-12 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

Animal Note: LYMPH NODE NOT PRESENT, BULBOURETHRAL GLAND PRESENT.

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 417

TRT#: 4

SEX: Male

DAY ON TEST: 457

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03074

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

* Lymph Node, Mediastinal	* Mammary Gland
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Liver	Centrilobular	Fatty Change	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 418

TRT#: 4

SEX: Male

DAY ON TEST: 457

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03075

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Medulla
- \* Epididymis
- \* Intestine Large, Cecum
- \* Intestine Small, Ileum
- \* Liver
- \* Lymph Node, Mediastinal
- \* Parathyroid Gland
- \* Seminal Vesicle
- \* Testes
- \* Urinary Bladder

- \* Bone
- \* Esophagus
- \* Intestine Large, Colon
- \* Intestine Small, Jejunum
- \* Lung
- \* Lymph Node, Mesenteric
- \* Pituitary Gland
- \* Skin
- \* Thymus

- \* Bone Marrow
- \* Gallbladder
- \* Intestine Large, Rectum
- \* Kidney
- \* Lymph Node, Bronchial
- \* Nose
- \* Prostate
- \* Stomach, Forestomach
- \* Thyroid Gland

- \* Brain
- \* Heart
- \* Intestine Small, Duodenum
- \* Larynx
- \* Lymph Node, Mandibular
- \* Pancreas
- \* Salivary Glands
- \* Stomach, Glandular
- \* Trachea

MISSING

- \* Mammary Gland

OBSERVATIONS

- \* Adrenal Cortex
- \* Spleen

Subcapsular

Hyperplasia  
Hematopoietic Cell Proliferation  
Pigmentation

Minimal  
Minimal  
Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 419

TRT#: 4

SEX: Male

DAY ON TEST: 457

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03076

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland	
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 420

TRT#: 4

SEX: Male

DAY ON TEST: 457

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03077

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

* Lymph Node, Bronchial	* Mammary Gland
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
Tooth		Odontoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 61

TRT#: 5

SEX: Female

DAY ON TEST: 731

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02718

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Bone		Dysplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Liver		Inflammation	Chronic, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
	Respirat Epith	Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-3,3.1 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Adenoma	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 62

TRT#: 5

SEX: Female

DAY ON TEST: 709

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02719

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                           |
|----------------------------|---------------------------|-----------------------------|---------------------------|
| * Adrenal Medulla          | * Esophagus               | * Gallbladder               | * Intestine Large, Cecum  |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum  |
| * Intestine Small, Jejunum | * Kidney                  | * Larynx                    | * Liver                   |
| * Lung                     | * Lymph Node, Bronchial   | * Lymph Node, Mandibular    | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric   | * Mammary Gland           | * Ovary                     | * Pancreas                |
| * Parathyroid Gland        | * Pituitary Gland         | * Salivary Glands           | * Skin                    |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Thyroid Gland           |
| * Trachea                  | * Urinary Bladder         |                             |                           |

OBSERVATIONS

- |                  |                |                |                      |
|------------------|----------------|----------------|----------------------|
| * Adrenal Cortex | Subcapsular    | Hyperplasia    | Mild                 |
| * Bone           |                | Dysplasia      | Moderate             |
| * Bone Marrow    |                | Degeneration   | Fatty, Mild          |
| * Brain          |                | Mineralization | Mild                 |
| * Heart          |                | Thrombosis     | Minimal              |
| * Nose           | Respirat Epith | Degeneration   | Hyaline, Minimal     |
| * Spleen         |                | Pigmentation   | Hemosiderin, Minimal |
| * Uterus         |                | Hyperplasia    | Cystic, Moderate     |

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 63

TRT#: 5

SEX: Female

DAY ON TEST: 729

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02720

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Liver		Inflammation	Chronic Active, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Intermed	Adenoma	
[ Adenoma TGLS = 2-3,3.1 ]			
[ Adenoma TGLS = 2-3,3.1 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin	Subcut Tiss	Sarcoma	
[ Sarcoma TGLS = 1-11 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Adenoma	
	Follicular Cel	Hyperplasia	Focal, Marked
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 64

TRT#: 5

SEX: Female

DAY ON TEST: 572

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02721

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Heart	* Intestine Large, Colon	* Intestine Small, Jejunum	* Larynx
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Gallbladder	* Lymph Node, Bronchial
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AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3-5 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 65

TRT#: 5

SEX: Female

DAY ON TEST: 731

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02722

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Pituitary Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 1-11 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:04

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 66

TRT#: 5

SEX: Female

DAY ON TEST: 729

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02723

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Marked
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-11 ]			
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
* Ovary		Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 67

TRT#: 5

SEX: Female

DAY ON TEST: 730

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02724

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Mixed Cell Focus	
[ Mixed Cell Focus TGLS = 1-11 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-3,3.1 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 2-8,8.1 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 68

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Natural Death

DAY ON TEST: 689

HISTO: 88-02725

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Gallbladder
* Intestine Large, Colon	* Intestine Large, Rectum	* Larynx	* Nose
* Parathyroid Gland	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Bronchial	* Mammary Gland
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AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
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OBSERVATIONS

* Adrenal Cortex	Subcapsular Capsule	Hyperplasia Lymphoma Malignant Mixed Lymphoma Malignant Mixed Lymphoma Malignant Mixed Lymphoma Malignant Mixed Lymphoma Malignant Mixed	Mild
* Adrenal Medulla			
* Bone Marrow			
* Heart			
* Kidney			
[ Lymphoma Malignant Mixed TGLS = 8,9-8 ]			
* Liver		Lymphoma Malignant Mixed	
* Lung		Alveolar/Bronchiolar Adenoma Lymphoma Malignant Mixed Lymphoma Malignant Mixed Lymphoma Malignant Mixed	
Lymph Node	Lumbar Renal		
[ Lymphoma Malignant Mixed TGLS = 14-7,10,11,12,13-12,6,7-11,15-3,3.1,1,2-2,2.1 ]			
[ Lymphoma Malignant Mixed TGLS = 14-7,10,11,12,13-12,6,7-11,15-3,3.1,1,2-2,2.1 ]			
* Lymph Node, Mandibular		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 14-7,10,11,12,13-12,6,7-11,15-3,3.1,1,2-2,2.1 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 14-7,10,11,12,13-12,6,7-11,15-3,3.1,1,2-2,2.1 ]			
* Lymph Node, Mesenteric		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 14-7,10,11,12,13-12,6,7-11,15-3,3.1,1,2-2,2.1 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 68	<b>TRT#:</b> 5 <b>DOSE:</b> CONTROL	<b>SEX:</b> Female <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 689 <b>HISTO:</b> 88-02725
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Ovary [ Lymphoma Malignant Mixed TGLS = 4,5-8 ]	Lymphoma Malignant Mixed	
* Pancreas	Lymphoma Malignant Mixed	
* Salivary Glands	Inflammation	Chronic, Minimal
* Spleen [ Lymphoma Malignant Mixed TGLS = 3-5 ]	Lymphoma Malignant Mixed	
* Thymus	Lymphoma Malignant Mixed	
* Urinary Bladder	Lymphoma Malignant Mixed	
* Uterus	Lymphoma Malignant Mixed	

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 69

TRT#: 5

SEX: Female

DAY ON TEST: 729

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02726

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Mammary Gland	* Ovary	* Pancreas
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Bone		Dysplasia	Mild
* Brain		Mineralization	Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hematopoietic Cell Proliferation	Mild
[ Hematopoietic Cell Proliferation TGLS = 5-7 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
* Skin		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Hemosiderin, Minimal
[ Hyperplasia TGLS = 4-5 ]			
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 2,3-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 70

TRT#: 5

SEX: Female

DAY ON TEST: 729

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02727

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Bone Marrow              | * Esophagus               | * Gallbladder               |
| * Heart                  | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  | * Lymph Node, Mediastinal   |
| * Mammary Gland          | * Nose                     | * Ovary                   | * Parathyroid Gland         |
| * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      | * Thyroid Gland             |
| * Trachea                |                            |                           |                             |

OBSERVATIONS

- |                          |               |                                  |                      |
|--------------------------|---------------|----------------------------------|----------------------|
| * Adrenal Cortex         | Subcapsular   | Hyperplasia                      | Mild                 |
| * Bone                   |               | Dysplasia                        | Minimal              |
| * Brain                  |               | Mineralization                   | Mild                 |
| * Intestine Large, Cecum |               | Lymphoma Malignant Mixed         |                      |
| * Kidney                 |               | Lymphoma Malignant Mixed         |                      |
| * Liver                  |               | Lymphoma Malignant Mixed         |                      |
| * Lung                   |               | Lymphoma Malignant Mixed         |                      |
| * Lymph Node, Bronchial  |               | Lymphoma Malignant Mixed         |                      |
| * Lymph Node, Mandibular |               | Lymphoma Malignant Mixed         |                      |
| * Lymph Node, Mesenteric |               | Lymphoma Malignant Mixed         |                      |
| * Pancreas               |               | Lymphoma Malignant Mixed         |                      |
| * Pituitary Gland        | Pars Distalis | Hyperplasia                      | Mild                 |
| * Salivary Glands        |               | Lymphoma Malignant Mixed         |                      |
| * Spleen                 |               | Hematopoietic Cell Proliferation | Moderate             |
|                          |               | Lymphoma Malignant Mixed         |                      |
|                          |               | Pigmentation                     | Hemosiderin, Minimal |
| * Thymus                 |               | Lymphoma Malignant Mixed         |                      |
| * Urinary Bladder        |               | Lymphoma Malignant Mixed         |                      |
| * Uterus                 |               | Hyperplasia                      | Cystic, Mild         |
|                          |               | Sarcoma Stromal                  |                      |

[ Sarcoma Stromal TGLS = 1-11 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 71

TRT#: 5

SEX: Female

DAY ON TEST: 729

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02728

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Adrenal Cortex	* Adrenal Medulla	* Lymph Node, Bronchial
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OBSERVATIONS

* Brain		Mineralization	Moderate
* Kidney		Infiltration Cellular	Lymphocyte, Moderate
* Liver		Fatty Change	Diffuse, Minimal
		Inflammation	Chronic, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 1-3,3.1 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 72

TRT#: 5

SEX: Female

DAY ON TEST: 731

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02729

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Moderate
* Brain		Mineralization	Minimal
Islets, Pancreatic		Hyperplasia	Focal, Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Ovary		Cystadenoma	
[ Cystadenoma TGLS = 4-8,8.1 ]			
* Pituitary Gland	Pars Distalis	Cyst	Mild
	Pars Distalis	Hyperplasia	Moderate
[ Cyst TGLS = 5-3,3.1 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Moderate
* Uterus		Hyperplasia	Cystic, Mild
		Polyp Stromal	
[ Hyperplasia TGLS = 3-8,8.1 ]			
[ Polyp Stromal TGLS = 2-8,8.1 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 72

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 88-02729

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 73

TRT#: 5

SEX: Female

DAY ON TEST: 731

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02730

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Liver		Mixed Cell Focus	
[ Mixed Cell Focus TGLS = 2-12 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 1-11 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 74

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Natural Death

DAY ON TEST: 690

HISTO: 88-02731

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Pituitary Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Uterus		

MISSING

* Lymph Node, Bronchial	* Mammary Gland	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Liver		Hepatocellular Adenoma	
	[ Hepatocellular Adenoma TGLS = 2-5 ]		
* Lung		Alveolar/Bronchiolar Carcinoma	
	[ Alveolar/Bronchiolar Carcinoma TGLS = 5-11 ]		
* Nose		Inflammation	Chronic Active, Mild
	Respirat Epith	Metaplasia	Squamous, Minimal
	Respirat Epith	Ulcer	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Fibrosis	Mild
		Hemangiosarcoma	
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Mild
		Hyperplasia	Lymphoid, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 75

TRT#: 5

SEX: Female

DAY ON TEST: 691

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 88-02732

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Moderate
* Heart		Hepatocholangiocarcinoma	Metastatic (Liver)
* Liver		Cytologic Alterations	Moderate
		Hepatocholangiocarcinoma	
[ Hepatocholangiocarcinoma TGLS = 5-12 ]			
* Lung	Mediastinum	Hepatocholangiocarcinoma	Metastatic (Liver)
		Hepatocholangiocarcinoma	Metastatic (Liver)
[ Hepatocholangiocarcinoma TGLS = 1-6 ]			
Lymph Node	Pancreatic	Hepatocholangiocarcinoma	Metastatic (Liver)
[ Hepatocholangiocarcinoma TGLS = 7-11 ]			
* Pancreas		Hepatocholangiocarcinoma	Metastatic (Liver)
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Marked
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 6-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 75

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 691

**DOSE:** CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 88-02732

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 76

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Natural Death

DAY ON TEST: 585

HISTO: 88-02733

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Medulla  
\* Intestine Large, Cecum  
\* Intestine Small, Jejunum  
\* Lymph Node, Mediastinal  
\* Pancreas  
\* Thyroid Gland

\* Bone Marrow  
\* Intestine Large, Colon  
\* Larynx  
\* Lymph Node, Mesenteric  
\* Skin  
\* Trachea

\* Esophagus  
\* Intestine Large, Rectum  
\* Lung  
\* Mammary Gland  
\* Stomach, Forestomach

\* Heart  
\* Intestine Small, Ileum  
\* Lymph Node, Mandibular  
\* Ovary  
\* Stomach, Glandular

MISSING

\* Lymph Node, Bronchial

\* Parathyroid Gland

\* Pituitary Gland

AUTO PRECLUDES DIAG.

\* Gallbladder

\* Intestine Small, Duodenum

OBSERVATIONS

\* Adrenal Cortex  
\* Bone  
\* Brain  
\* Kidney  
\* Liver

Subcapsular

Hyperplasia  
Dysplasia  
Mineralization  
Infiltration Cellular  
Lymphoma Malignant Mixed

Mild  
Moderate  
Minimal  
Lymphocyte, Minimal

[ Lymphoma Malignant Mixed TGLS = 1-11 ]

\* Nose  
\* Salivary Glands  
\* Spleen

Respirat Epith

Hyperplasia  
Inflammation  
Hematopoietic Cell Proliferation  
Lymphoma Malignant Mixed

Minimal  
Chronic, Minimal  
Minimal

\* Thymus  
\* Urinary Bladder  
\* Uterus

Pigmentation  
Atrophy  
Infiltration Cellular  
Hyperplasia

Hemosiderin, Minimal  
Minimal  
Lymphocyte, Minimal  
Cystic, Mild

[ Hyperplasia TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 77

TRT#: 5

SEX: Female

DAY ON TEST: 731

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02734

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea

MISSING

* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 3-12 ]			
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
	Respirat Epith	Degeneration	Hyaline, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 6-3,3.1 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 78

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Natural Death

DAY ON TEST: 613

HISTO: 88-02735

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Gallbladder
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Skin
* Stomach, Forestomach	* Thyroid Gland	* Trachea	

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
		Lymphoma Malignant Mixed	
* Adrenal Medulla		Lymphoma Malignant Mixed	
* Brain		Mineralization	Mild
* Heart		Lymphoma Malignant Mixed	
* Kidney		Lymphoma Malignant Mixed	
* Liver		Lymphoma Malignant Mixed	
* Lung		Lymphoma Malignant Mixed	
Lymph Node	Lumbar	Lymphoma Malignant Mixed	
	Renal	Lymphoma Malignant Mixed	
		[ Lymphoma Malignant Mixed TGLS = 4-11,2-3,5-12,1-2 ]	
		[ Lymphoma Malignant Mixed TGLS = 4-11,2-3,5-12,1-2 ]	
* Lymph Node, Bronchial		Lymphoma Malignant Mixed	
		[ Lymphoma Malignant Mixed TGLS = 4-11,2-3,5-12,1-2 ]	
* Lymph Node, Mandibular		Lymphoma Malignant Mixed	
		[ Lymphoma Malignant Mixed TGLS = 4-11,2-3,5-12,1-2 ]	
* Lymph Node, Mediastinal		Lymphoma Malignant Mixed	
		[ Lymphoma Malignant Mixed TGLS = 4-11,2-3,5-12,1-2 ]	
* Lymph Node, Mesenteric		Lymphoma Malignant Mixed	
		[ Lymphoma Malignant Mixed TGLS = 4-11,2-3,5-12,1-2 ]	
* Ovary		Lymphoma Malignant Mixed	
* Pancreas		Lymphoma Malignant Mixed	
* Salivary Glands		Lymphoma Malignant Mixed	
* Spleen		Lymphoma Malignant Mixed	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite

**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014

**Time Report Requested:** 23:28:05

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

**Lab:** IIT

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**ANIMAL ID:** 78

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 613

**DOSE:** CONTROL

**DISP:** Natural Death

**HISTO:** 88-02735

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Lymphoma Malignant Mixed TGLS = 3-5 ]

\* Stomach, Glandular

Lymphoma Malignant Mixed

\* Thymus

Lymphoma Malignant Mixed

\* Urinary Bladder

Lymphoma Malignant Mixed

\* Uterus

Hyperplasia

Cystic, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 79

TRT#: 5

SEX: Female

DAY ON TEST: 729

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02736

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Minimal
* Liver		Hepatocellular Adenoma	
		Inflammation	Chronic Active, Minimal
	[ Hepatocellular Adenoma TGLS = 3-11 ]		
* Ovary		Cyst	Marked
	[ Cyst TGLS = 2-8 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
	[ Hyperplasia TGLS = 1-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 80

TRT#: 5

SEX: Female

DAY ON TEST: 71

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02737

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Cortex
- \* Brain
- \* Intestine Large, Cecum
- \* Intestine Small, Jejunum
- \* Lung
- \* Lymph Node, Mesenteric
- \* Pancreas
- \* Skin
- \* Trachea

- \* Adrenal Medulla
- \* Esophagus
- \* Intestine Large, Colon
- \* Kidney
- \* Lymph Node, Bronchial
- \* Mammary Gland
- \* Parathyroid Gland
- \* Stomach, Forestomach
- \* Urinary Bladder

- \* Bone
- \* Gallbladder
- \* Intestine Large, Rectum
- \* Larynx
- \* Lymph Node, Mandibular
- \* Nose
- \* Pituitary Gland
- \* Stomach, Glandular
- \* Uterus

- \* Bone Marrow
- \* Heart
- \* Intestine Small, Ileum
- \* Liver
- \* Lymph Node, Mediastinal
- \* Ovary
- \* Salivary Glands
- \* Thyroid Gland

AUTO PRECLUDES DIAG.

- \* Intestine Small, Duodenum

OBSERVATIONS

- |                        |                                  |                      |
|------------------------|----------------------------------|----------------------|
| * Spleen               | Hematopoietic Cell Proliferation | Minimal              |
|                        | Pigmentation                     | Hemosiderin, Minimal |
| * Thymus               | Atrophy                          | Moderate             |
| [ Atrophy TGLS = 1-2 ] |                                  |                      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 81

TRT#: 5

SEX: Female

DAY ON TEST: 730

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02738

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	

MISSING

* Lymph Node, Bronchial	* Ovary	* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Heart		Inflammation	Chronic, Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Liver	Fat	Necrosis	Minimal
	Hepatocyte	Necrosis	Mild
			[ Necrosis TGLS = 1-11 ]
			[ Necrosis TGLS = 1-11 ]
* Lung		Infiltration Cellular	Lymphocyte, Minimal
		Inflammation	Chronic Active, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mesenteric		Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicle	Cyst	Marked
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 82

TRT#: 5

SEX: Female

DAY ON TEST: 691

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 88-02739

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Angiectasis	Moderate
		Hyperplasia	Cystic, Moderate

[ Angiectasis TGLS = 1-11 ]

[ Hyperplasia TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 83

TRT#: 5

SEX: Female

DAY ON TEST: 589

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02740

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea			

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-11 ]			
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
[ Hepatocellular Carcinoma TGLS = 1-6 ]			
Mesentery		Hepatocellular Carcinoma	Metastatic (Liver)
[ Hepatocellular Carcinoma TGLS = 4-12 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Thymus		Atrophy	Moderate
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 3-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 84

TRT#: 5

SEX: Female

DAY ON TEST: 729

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02741

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Uterus			

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Ovary		Cyst	Moderate
[ Cyst TGLS = 2-8 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Mild
* Skin		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 85

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02742

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland	* Pituitary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-11 ]			
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 3-13 ]			
* Pancreas		Inflammation	Chronic, Mild
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Angiectasis	Mild
[ Angiectasis TGLS = 4-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 86

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02743

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Cyst	Mild
		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Inflammation	Chronic, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Mild
Note: FOCAL AGONAL HEMORRHAGE ACCOUNTS FOR GROSS LESION.			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Ovary		Cyst	Moderate
[ Cyst TGLS = 3-8,8.1 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Mild
* Skin	Subcut Tiss	Hemangioma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Moderate
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild
		Polyp Stromal	
[ Hyperplasia TGLS = 2-8,8.1 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 86	<b>TRT#:</b> 5	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 88-02743

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Polyp Stromal TGLS = 2-8,8.1 ]

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PRIMARY CAUSE OF DEATH

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-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 87

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-02744

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
-------------------------	---------------------

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Moderate
* Liver		Inflammation	Chronic, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Ovary [ Cyst TGLS = 2-8,8.1 ]		Cyst	Marked
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 88

TRT#: 5

SEX: Female

DAY ON TEST: 729

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02745

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Eosinophilic Focus	
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 89

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Natural Death

DAY ON TEST: 638

HISTO: 88-02746

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Kidney	Renal Tubule	Amyloid Deposition	Marked
		Dilatation	Moderate
		Infiltration Cellular	Lymphocyte, Mild
[ Amyloid Deposition TGLS = 3-8 ]			
[ Dilatation TGLS = 3-8 ]			
* Lung		Inflammation	Chronic Active, Mild
* Ovary		Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 5-3,3.1 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Moderate
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 90

TRT#: 5

SEX: Female

DAY ON TEST: 576

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02747

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Pituitary Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Small, Ileum
---------------	--------------------------

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Heart		Infiltration Cellular	Mild
* Kidney	Renal Tubule	Degeneration	Hyaline, Mild
[ Degeneration TGLS = 3-8 ]			
* Liver		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 4-5 ]			
* Lung		Leukocytosis	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
[ Hematopoietic Cell Proliferation TGLS = 2-5 ]			
* Thymus		Atrophy	Mild
* Uterus		Histiocytic Sarcoma	
		Hyperplasia	Cystic, Moderate
[ Histiocytic Sarcoma TGLS = 6-11 ]			
[ Hyperplasia TGLS = 5-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 91

TRT#: 5

SEX: Female

DAY ON TEST: 709

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02748

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Ileum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Ovary	* Parathyroid Gland	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea		

MISSING

\* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

\* Intestine Small, Duodenum                      \* Intestine Small, Jejunum

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Schwannoma Malignant	Metastatic (Skin)
* Brain		Mineralization	Mild
* Intestine Large, Rectum		Schwannoma Malignant	Metastatic (Skin)
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Lymph Node, Mesenteric		Hemorrhage	Moderate
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Pancreas		Schwannoma Malignant	Metastatic (Skin)
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
* Salivary Glands		Inflammation	Chronic, Mild
* Skin	Subcut Tiss	Schwannoma Malignant	
	[ Schwannoma Malignant TGLS = 1-11,4-12 ]		
* Spleen		Hematopoietic Cell Proliferation	Marked
	[ Hematopoietic Cell Proliferation TGLS = 3-5 ]	Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Marked
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hemangioma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 91

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 709

**DOSE:** CONTROL

**DISP:** Natural Death

**HISTO:** 88-02748

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 92

TRT#: 5

SEX: Female

DAY ON TEST: 729

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02749

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea		

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
Mesentery	Fat	Necrosis	Mild
[ Necrosis TGLS = 3-12 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Exudate	Serous, Minimal
* Ovary	Interstitial	Hyperplasia	Moderate
[ Hyperplasia TGLS = 4-8 ]			
* Skin		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Polyp Stromal	
[ Polyp Stromal TGLS = 2-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 93

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02750

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

MISSING

\* Adrenal Medulla

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
		Inflammation	Chronic, Minimal
[ Hepatocellular Adenoma TGLS = 4-12 ]			
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Mild
* Skin		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 3-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 94

TRT#: 5

SEX: Female

DAY ON TEST: 730

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02751

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 2-11 ]			
* Ovary		Cyst	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 95

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Natural Death

DAY ON TEST: 635

HISTO: 88-02752

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea		

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Parathyroid Gland
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AUTO PRECLUDES DIAG.

* Intestine Small, Ileum	* Intestine Small, Jejunum
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Compression	Marked
[ Compression TGLS = 5-1 ]			
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-3 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thymus		Atrophy	Moderate
* Thyroid Gland	Follicular Cel	Hyperplasia	Diffuse, Marked
[ Hyperplasia TGLS = 2-3 ]			
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 4-8 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 96

TRT#: 5

SEX: Female

DAY ON TEST: 729

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02753

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Liver		Inflammation	Chronic, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Lymph Node, Mesenteric		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 3-12 ]		
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
	Respirat Epith	Ulcer	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin		Inflammation	Chronic, Minimal
* Spleen		Lymphoma Malignant Mixed	
		Pigmentation	Hemosiderin, Minimal
	[ Lymphoma Malignant Mixed TGLS = 1-11 ]		
* Thymus		Lymphoma Malignant Mixed	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Marked
	[ Hyperplasia TGLS = 2-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 96

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 88-02753

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 97

TRT#: 5

SEX: Female

DAY ON TEST: 730

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02754

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Medulla  
\* Gallbladder  
\* Intestine Large, Rectum  
\* Larynx  
\* Pituitary Gland  
\* Thyroid Gland

\* Bone Marrow  
\* Heart  
\* Intestine Small, Duodenum  
\* Lymph Node, Mesenteric  
\* Stomach, Forestomach  
\* Trachea

\* Brain  
\* Intestine Large, Cecum  
\* Intestine Small, Ileum  
\* Mammary Gland  
\* Stomach, Glandular

\* Esophagus  
\* Intestine Large, Colon  
\* Intestine Small, Jejunum  
\* Pancreas  
\* Thymus

MISSING

\* Lymph Node, Bronchial

\* Parathyroid Gland

OBSERVATIONS

\* Adrenal Cortex  
\* Bone  
\* Kidney  
\* Liver  
\* Lung  
\* Lymph Node, Mandibular  
\* Lymph Node, Mediastinal  
\* Nose  
\* Ovary  
    [ Cyst TGLS = 4-8 ]  
\* Salivary Glands  
\* Skin  
\* Spleen  
  
\* Urinary Bladder  
\* Uterus  
    [ Hyperplasia TGLS = 3-8 ]

Subcapsular

Hyperplasia  
Dysplasia  
Infiltration Cellular  
Inflammation  
Infiltration Cellular  
Hyperplasia  
Hyperplasia  
Exudate  
Cyst  
  
Inflammation  
Inflammation  
Hyperplasia  
Pigmentation  
Infiltration Cellular  
Hyperplasia

Moderate  
Minimal  
Lymphocyte, Minimal  
Chronic, Minimal  
Lymphocyte, Minimal  
Lymphoid, Mild  
Lymphoid, Mild  
Mild  
Moderate  
  
Chronic, Mild  
Chronic, Minimal  
Lymphoid, Mild  
Hemosiderin, Minimal  
Lymphocyte, Minimal  
Cystic, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 98

TRT#: 5

SEX: Female

DAY ON TEST: 730

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02755

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mandibular
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver	Periportal	Basophilic Focus	
		Fatty Change	Mild
		Hepatocellular Carcinoma	
		Mixed Cell Focus	
		[ Basophilic Focus TGLS = 3-13 ]	
		[ Hepatocellular Carcinoma TGLS = 2-11 ]	
		[ Mixed Cell Focus TGLS = 4-14 ]	
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
	Respirat Epith	Metaplasia	Squamous, Mild
	Respirat Epith	Ulcer	Mild
* Ovary		Infiltration Cellular	Lymphocyte, Mild
* Pancreas		Inflammation	Chronic, Mild
* Pituitary Gland	Pars Distalis	Hemorrhage	Mild
	Pars Distalis	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite

**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014

**Time Report Requested:** 23:28:05

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

**Lab:** IIT

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**ANIMAL ID:** 98

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 88-02755

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Salivary Glands

Inflammation

Chronic, Moderate

\* Spleen

Hematopoietic Cell Proliferation

Minimal

\* Urinary Bladder

Pigmentation

Hemosiderin, Minimal

\* Uterus

Infiltration Cellular

Lymphocyte, Mild

Hyperplasia

Cystic, Moderate

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 99

TRT#: 5

SEX: Female

DAY ON TEST: 730

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02756

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Brain		Mineralization	Mild
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-11 ]			
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Salivary Glands		Inflammation	Chronic, Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 100

TRT#: 5

SEX: Female

DAY ON TEST: 731

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02757

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Marked

[ Hyperplasia TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 101

TRT#: 5

SEX: Female

DAY ON TEST: 729

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02758

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                           |
|----------------------------|---------------------------|-----------------------------|---------------------------|
| * Adrenal Medulla          | * Bone                    | * Bone Marrow               | * Brain                   |
| * Esophagus                | * Gallbladder             | * Heart                     | * Intestine Large, Cecum  |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum  |
| * Intestine Small, Jejunum | * Larynx                  | * Lymph Node, Mandibular    | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric   | * Ovary                   | * Pancreas                  | * Skin                    |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thyroid Gland             | * Trachea                 |
| * Uterus                   |                           |                             |                           |

MISSING

- |                         |                     |
|-------------------------|---------------------|
| * Lymph Node, Bronchial | * Parathyroid Gland |
|-------------------------|---------------------|

OBSERVATIONS

- |  |                |                                  |                      |
|--|----------------|----------------------------------|----------------------|
| * Adrenal Cortex                               | Subcapsular    | Hyperplasia                      | Mild                 |
| * Kidney                                       |                | Infiltration Cellular            | Lymphocyte, Minimal  |
| * Liver  |                | Cytologic Alterations            | Moderate             |
|  |                | Inflammation                     | Chronic, Minimal     |
| [ Cytologic Alterations TGLS = 2-12 ]          |                |                                  |                      |
| * Lung   |                | Infiltration Cellular            | Lymphocyte, Minimal  |
| * Mammary Gland                                |                | Hyperplasia                      | Mild                 |
| * Nose   | Respirat Epith | Degeneration                     | Hyaline, Minimal     |
| * Pituitary Gland                              | Pars Distalis  | Adenoma                          |                      |
| * Salivary Glands                              |                | Inflammation                     | Chronic, Mild        |
| * Spleen                                       |                | Hematopoietic Cell Proliferation | Minimal              |
|  |                | Pigmentation                     | Hemosiderin, Minimal |
| * Thymus                                       |                | Lymphoma Malignant Lymphocytic   |                      |
| [ Lymphoma Malignant Lymphocytic TGLS = 1-11 ] |                |                                  |                      |
| * Urinary Bladder                              |                | Infiltration Cellular            | Lymphocyte, Minimal  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 102

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-02759

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
Islets, Pancreatic		Hyperplasia	Focal, Moderate
* Kidney	Renal Tubule	Hyperplasia	Focal, Minimal
		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Inflammation	Chronic, Mild
		Necrosis	Mild
* Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Lymphocyte, Minimal
[ Infiltration Cellular TGLS = 1-6 ]			
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 2-11 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 103

TRT#: 5

SEX: Female

DAY ON TEST: 595

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02760

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

* Intestine Small, Jejunum	* Lymph Node, Bronchial	* Parathyroid Gland	* Pituitary Gland
* Thymus			

**AUTO PRECLUDES DIAG.**

* Intestine Small, Duodenum	* Intestine Small, Ileum
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Heart	Artery	Inflammation	Chronic, Minimal
Mesentery	Artery	Inflammation	Chronic, Moderate
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Marked
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 104

TRT#: 5

SEX: Female

DAY ON TEST: 730

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02761

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Medulla

\* Bone

\* Bone Marrow

\* Brain

\* Esophagus

\* Gallbladder

\* Heart

\* Intestine Large, Cecum

\* Intestine Large, Colon

\* Intestine Large, Rectum

\* Intestine Small, Duodenum

\* Intestine Small, Ileum

\* Intestine Small, Jejunum

\* Larynx

\* Lymph Node, Mandibular

\* Lymph Node, Mediastinal

\* Lymph Node, Mesenteric

\* Mammary Gland

\* Ovary

\* Pancreas

\* Pituitary Gland

\* Skin

\* Stomach, Forestomach

\* Stomach, Glandular

\* Thymus

\* Thyroid Gland

\* Trachea

MISSING

\* Lymph Node, Bronchial

\* Parathyroid Gland

OBSERVATIONS

\* Adrenal Cortex

Subcapsular

Hyperplasia

Mild

\* Kidney

Infiltration Cellular

Lymphocyte, Mild

\* Liver

Inflammation

Chronic, Minimal

\* Lung

Infiltration Cellular

Lymphocyte, Minimal

\* Nose

Respirat Epith

Degeneration

Hyaline, Minimal

\* Salivary Glands

Inflammation

Chronic, Minimal

\* Spleen

Hematopoietic Cell Proliferation

Minimal

\* Urinary Bladder

Pigmentation

Hemosiderin, Minimal

\* Uterus

Infiltration Cellular

Lymphocyte, Mild

Hyperplasia

Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 105

TRT#: 5

SEX: Female

DAY ON TEST: 649

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 88-02762

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Bone                      | * Bone Marrow            |
| * Esophagus                | * Gallbladder             | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Larynx                  | * Liver                     | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal  | * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   |
| * Ovary                    | * Pancreas                | * Parathyroid Gland         | * Pituitary Gland        |
| * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Trachea                  | * Urinary Bladder         |                             |                          |

MISSING

- \* Lymph Node, Bronchial

OBSERVATIONS

- |                   |                |                                  |                      |
|-------------------|----------------|----------------------------------|----------------------|
| * Brain           |                | Mineralization                   | Mild                 |
| * Kidney          |                | Infiltration Cellular            | Lymphocyte, Minimal  |
| * Lung            |                | Infiltration Cellular            | Lymphocyte, Minimal  |
| * Salivary Glands |                | Inflammation                     | Chronic, Mild        |
| * Spleen          |                | Hematopoietic Cell Proliferation | Minimal              |
|                   |                | Pigmentation                     | Hemosiderin, Minimal |
| * Thyroid Gland   | Follicular Cel | Adenoma                          |                      |
| * Uterus          |                | Hyperplasia                      | Cystic, Minimal      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 106

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02763

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
-------------------------	---------------------

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Basophilic Focus	
* Lung		Alveolar/Bronchiolar Carcinoma	
		Infiltration Cellular	Lymphocyte, Minimal
[ Alveolar/Bronchiolar Carcinoma TGLS = 1-11 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Intermed	Adenoma	
[ Adenoma TGLS = 2-3,3.1 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Mild
* Thyroid Gland	Follicular Cel	Adenoma	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 107

TRT#: 5

SEX: Female

DAY ON TEST: 730

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02764

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	

MISSING

* Lymph Node, Bronchial	* Ovary	* Urinary Bladder	
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Inflammation	Chronic, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Pancreas	Acinus	Atrophy	Marked
		Inflammation	Chronic, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 108

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Natural Death

DAY ON TEST: 696

HISTO: 88-02765

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Larynx	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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AUTO PRECLUDES DIAG.

* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Urinary Bladder
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Moderate
* Kidney	Renal Tubule	Dilatation	Moderate
		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Carcinoma	Multiple
	[ Hepatocellular Carcinoma TGLS = 4,5-5,11 ]		
* Nose	Respirat Epith	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Moderate
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 109

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Natural Death

DAY ON TEST: 643

HISTO: 88-02766

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Heart
* Intestine Large, Colon	* Larynx	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea			

MISSING

* Gallbladder	* Lymph Node, Bronchial
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AUTO PRECLUDES DIAG.

* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Marked
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Kidney		Hydronephrosis	Mild
* Liver		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 5-5 ]			
* Lung		Inflammation	Chronic Active, Minimal
Lymph Node	Inguinal	Histiocytic Sarcoma	
	Lumbar	Histiocytic Sarcoma	
	Renal	Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 2-11,3-12,1-11 ]			
[ Histiocytic Sarcoma TGLS = 2-11,3-12,1-11 ]			
[ Histiocytic Sarcoma TGLS = 2-11,3-12,1-11 ]			
* Lymph Node, Mandibular		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 2-11,3-12,1-11 ]			
* Lymph Node, Mediastinal		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 2-11,3-12,1-11 ]			
* Nose		Inflammation	Chronic Active, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 109

**TRT#:** 5  
**DOSE:** CONTROL

**SEX:** Female  
**DISP:** Natural Death

**DAY ON TEST:** 643  
**HISTO:** 88-02766

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Salivary Glands	Inflammation	Chronic, Minimal
* Spleen	Hematopoietic Cell Proliferation Histiocytic Sarcoma	Moderate
* Thymus	Atrophy	Moderate
* Urinary Bladder	Lymphoma Malignant Histiocytic	
* Uterus	Histiocytic Sarcoma	
Vagina	Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 6-13 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 110

TRT#: 5

SEX: Female

DAY ON TEST: 731

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 88-02767

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea		

**MISSING**

* Lymph Node, Bronchial	* Parathyroid Gland
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Pancreas		Inflammation	Chronic, Mild
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 111

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Scheduled Sacrifice

DAY ON TEST: 458

HISTO: 88-02768

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Ovary		Cyst	Moderate
[ Cyst TGLS = 2-8,8.1 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Minimal
[ Hyperplasia TGLS = 3-8,8.1 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 112

TRT#: 5

SEX: Female

DAY ON TEST: 458

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02769

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 113

TRT#: 5

SEX: Female

DAY ON TEST: 458

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02770

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

\* Parathyroid Gland

**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Mild

[ Hyperplasia TGLS = 1-8,8.1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 114

TRT#: 5

SEX: Female

DAY ON TEST: 458

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02771

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
	Respirat Epith	Degeneration	Hyaline, Minimal
* Ovary		Cyst	Minimal
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 115

TRT#: 5

SEX: Female

DAY ON TEST: 91

DOSE: CONTROL

DISP: Natural Death

HISTO: 88-02772

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex

\* Adrenal Medulla

\* Bone

\* Bone Marrow

\* Esophagus

\* Heart

\* Intestine Large, Cecum

\* Intestine Large, Colon

\* Intestine Large, Rectum

\* Intestine Small, Ileum

\* Kidney

\* Larynx

\* Liver

\* Lung

\* Lymph Node, Bronchial

\* Lymph Node, Mediastinal

\* Lymph Node, Mesenteric

\* Mammary Gland

\* Nose

\* Ovary

\* Pancreas

\* Parathyroid Gland

\* Pituitary Gland

\* Salivary Glands

\* Skin

\* Stomach, Forestomach

\* Stomach, Glandular

\* Thyroid Gland

Tooth

\* Trachea

\* Urinary Bladder

\* Uterus

**MISSING**

\* Brain

\* Thymus

**AUTO PRECLUDES DIAG.**

\* Gallbladder

\* Intestine Small, Duodenum

\* Intestine Small, Jejunum

**OBSERVATIONS**

\* Lymph Node, Mandibular

Inflammation

Chronic Active, Moderate

\* Spleen

Atrophy

Moderate

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 116

TRT#: 5

SEX: Female

DAY ON TEST: 458

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02773

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

[ Hyperplasia TGLS = 1-8,8.1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 117

TRT#: 5

SEX: Female

DAY ON TEST: 458

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02774

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin	Epithelium	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hemorrhage	Mild
		Hyperplasia	Cystic, Mild

[ Hemorrhage TGLS = 3-11 ]

[ Hyperplasia TGLS = 2-8,11 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 118

TRT#: 5

SEX: Female

DAY ON TEST: 458

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02775

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

**MISSING**

\* Pituitary Gland

**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 119

TRT#: 5

SEX: Female

DAY ON TEST: 458

DOSE: CONTROL

DISP: Scheduled Sacrifice

HISTO: 88-02776

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea

**MISSING**

* Lymph Node, Bronchial	* Parathyroid Gland
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Moderate
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

[ Hyperplasia TGLS = 1-8,8.1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 120

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Scheduled Sacrifice

DAY ON TEST: 458

HISTO: 88-02777

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-5 ]			
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Minimal
[ Hyperplasia TGLS = 1-8,8.1 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 181

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-02838

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
Mesentery	Fat	Necrosis	Mild
[ Necrosis TGLS = 2-12 ]			
* Nose		Inflammation	Chronic Active, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[ Hyperplasia TGLS = 5-3 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin	Subcut Tiss	Hemangiosarcoma	
[ Hemangiosarcoma TGLS = 1-11 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal
[ Hematopoietic Cell Proliferation TGLS = 4-5 ]			
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 3-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 182

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02839

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Parathyroid Gland	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Moderate
Lymph Node		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 2-12 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-12 ]			
* Pancreas	Duct	Dilatation	Moderate
[ Dilatation TGLS = 1-11 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Dilatation	Marked
[ Dilatation TGLS = 3-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 183

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 697

HISTO: 88-02840

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland	* Pituitary Gland	* Urinary Bladder
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
Harderian Gland		Adenoma	
[ Adenoma TGLS = 1-12 ]			
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Inflammation	Chronic, Minimal
Lymph Node	Iliac	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2,3-13,4-14 ]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2,3-13,4-14 ]			
Mesentery	Fat	Cyst	Marked
		Necrosis	Mild
		Proliferation Connective Tissue	
Note: POSSIBLY AREA OF ATROPHIC PANCREAS.			
Note: ADHESION, ADHERED TO SKELETAL MUSCLE.			
[ Cyst TGLS = 8-11 ]			
[ Necrosis TGLS = 7-15 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 183

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 697

**DOSE:** 37.5 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 88-02840

**ORGAN AND ACCOUNTABLE SITE STATUS**

Pigmentation  
Proliferation Connective Tissue

Hemosiderin, Minimal

Note: ADHESION.

[ Hematopoietic Cell Proliferation TGLS = 6-5 ]

[ Hyperplasia TGLS = 6-5 ]

\* Uterus

Hyperplasia  
Hyperplasia

Cystic, Moderate  
Marked

[ Hyperplasia TGLS = 5-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 184

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02841

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Uterus

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Bone Marrow		Atrophy	Mild
* Liver		Inflammation	Chronic, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Mild
		Inflammation	Chronic Active, Minimal
	Olfactory Epi	Metaplasia	Squamous, Minimal
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 2-5 ]		
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 185

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02842

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
		Infiltration Cellular	Lymphocyte, Minimal
[ Alveolar/Bronchiolar Adenoma TGLS = 1-11 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicle	Cyst	Mild
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 186

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02843

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Liver		Eosinophilic Focus	
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Marked
		Polyp Stromal	

[ Hyperplasia TGLS = 2-8 ]

[ Polyp Stromal TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 187

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02844

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Mixed Cell Focus	
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 2-11 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
	Respirat Epith	Hyperplasia	Minimal
* Ovary		Cyst	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 188

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02845

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
		Hyperplasia	Focal, Minimal
* Brain		Mineralization	Moderate
* Liver		Hepatocellular Adenoma	
	[ Hepatocellular Adenoma TGLS = 3-11 ]		
* Lung	Alveolar Epith	Hyperplasia	Focal, Marked
	[ Hyperplasia TGLS = 4-13 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLS = 1-12 ]		
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
	[ Hyperplasia TGLS = 2-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 189

TRT#: 6

SEX: Female

DAY ON TEST: 520

DOSE: 37.5 PPM

DISP: Natural Death

HISTO: 88-02846

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla           | * Bone                   | * Bone Marrow              | * Brain                   |
| * Esophagus                 | * Heart                  | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  |
| * Lymph Node, Mandibular    | * Mammary Gland          | * Ovary                    | * Pancreas                |
| * Parathyroid Gland         | * Pituitary Gland        | * Skin                     | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |
| * Uterus                    |                          |                            |                           |

MISSING

- \* Gallbladder

AUTO PRECLUDES DIAG.

- \* Intestine Large, Cecum

OBSERVATIONS

- |                           |  |   |                  |
|---------------------------|--|---|------------------|
| * Adrenal Cortex          | Subcapsular  | Hyperplasia                                   | Mild             |
| * Kidney                  |  | Lymphoma Malignant Undifferentiated Cell Type |                  |
| * Liver                   |  | Lymphoma Malignant Undifferentiated Cell Type |                  |
|                           | [ Lymphoma Malignant Undifferentiated Cell Type TGLS = 6,7-5,5.1 ]   |   |                  |
| * Lung                    |  | Lymphoma Malignant Undifferentiated Cell Type |                  |
|                           | [ Lymphoma Malignant Undifferentiated Cell Type TGLS = 9-14,8-13 ]   |   |                  |
| Lymph Node                | Lumbar   | Lymphoma Malignant Undifferentiated Cell Type |                  |
|                           | Renal  | Lymphoma Malignant Undifferentiated Cell Type |                  |
|                           | [ Lymphoma Malignant Undifferentiated Cell Type TGLS = 4,5-12,3-11 ] |   |                  |
|                           | [ Lymphoma Malignant Undifferentiated Cell Type TGLS = 4,5-12,3-11 ] |   |                  |
| * Lymph Node, Bronchial   |  | Lymphoma Malignant Undifferentiated Cell Type |                  |
|                           | [ Lymphoma Malignant Undifferentiated Cell Type TGLS = 4,5-12,3-11 ] |   |                  |
| * Lymph Node, Mediastinal |  | Lymphoma Malignant Undifferentiated Cell Type |                  |
|                           | [ Lymphoma Malignant Undifferentiated Cell Type TGLS = 4,5-12,3-11 ] |   |                  |
| * Lymph Node, Mesenteric  |  | Lymphoma Malignant Undifferentiated Cell Type |                  |
|                           | [ Lymphoma Malignant Undifferentiated Cell Type TGLS = 4,5-12,3-11 ] |   |                  |
| * Nose                    | Respirat Epith   | Hyperplasia                                   | Minimal          |
| * Salivary Glands         |  | Inflammation                                  | Chronic, Minimal |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 189

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 520

**DOSE:** 37.5 PPM

**DISP:** Natural Death

**HISTO:** 88-02846

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Spleen [ Lymphoma Malignant Undifferentiated Cell Type TGLS = 2-5,5.1 ]	Lymphoma Malignant Undifferentiated Cell Type
* Thymus [ Lymphoma Malignant Undifferentiated Cell Type TGLS = 1-2,2.1 ]	Lymphoma Malignant Undifferentiated Cell Type

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 190

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-02847

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea			

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
		Nephropathy	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
		Hepatocellular Adenoma	
	Hepatocyte	Hepatocellular Carcinoma	
		Necrosis	Minimal
		Necrosis	Minimal
	[ Hepatocellular Adenoma TGLS = 3-13 ]		
	[ Hepatocellular Carcinoma TGLS = 2-11 ]		
* Lung		Alveolar/Bronchiolar Carcinoma	
		Hepatocellular Carcinoma	Metastatic (Liver)
	[ Alveolar/Bronchiolar Carcinoma TGLS = 5-12 ]		
	[ Hepatocellular Carcinoma TGLS = 5-12 ]		
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
	Olfactory Epi	Metaplasia	Minimal
	Respirat Epith	Ulcer	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite

**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014

**Time Report Requested:** 23:28:05

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

**Lab:** IIT

**ANIMAL ID:** 190

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 37.5 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02847

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Pars Intermed	Adenoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
	[ Hematopoietic Cell Proliferation TGLS = 1-5 ]		
* Thymus		Hyperplasia	Lymphoid, Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 191

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02848

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Liver		Inflammation	Chronic, Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 4-3,3.1 ]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 4-3,3.1 ]			
* Nose	Olfactory Epi	Metaplasia	Minimal
* Ovary		Cyst	Marked
[ Cyst TGLS = 1-8 ]			
* Pancreas	Acinus	Atrophy	Moderate
		Fibrosis	Marked
		Inflammation	Chronic Active, Marked
[ Fibrosis TGLS = 3-2,2.1 ]			
[ Inflammation TGLS = 3-2,2.1 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Moderate
* Uterus		Hyperplasia	Cystic, Minimal
[ Hyperplasia TGLS = 2-8 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 191

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 37.5 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02848

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 192

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 728

HISTO: 88-02849

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Bone		Dysplasia	Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Olfactory Epi	Metaplasia	Minimal
* Pituitary Gland	Pars Intermed	Adenoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Urinary Bladder		Dilatation	Moderate
		Infiltration Cellular	Lymphocyte, Minimal
[ Dilatation TGLS = 1-4 ]			
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 193

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02850

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Liver	Periportal	Hypertrophy	Mild
		Inflammation	Chronic, Minimal
		Mitotic Alteration	Minimal
[ Hypertrophy TGLS = 4-5 ]			
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Ovary		Cyst	Moderate
[ Cyst TGLS = 2-8,8.1 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin		Inflammation	Chronic Active, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
[ Hematopoietic Cell Proliferation TGLS = 3-5 ]			
* Thyroid Gland	Follicular Cel	Adenoma	
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 194

TRT#: 6

SEX: Female

DAY ON TEST: 707

DOSE: 37.5 PPM

DISP: Natural Death

HISTO: 88-02851

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

\* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

\* Intestine Small, Ileum

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 1-11 ]		
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
	[ Hyperplasia TGLS = 2-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 195

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02852

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
---------------------------	---------------------

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin		Inflammation	Chronic Active, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Adenoma	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

[ Hyperplasia TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 196

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02853

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-12 ]			
* Lung	Alveolar Epith	Hyperplasia	Focal, Marked
		Infiltration Cellular	Lymphocyte, Minimal
[ Hyperplasia TGLS = 3-13 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Salivary Glands		Inflammation	Chronic, Mild
* Skin	Epithelium	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 4-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 197

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02854

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Bone Marrow               | * Brain                  | * Esophagus                |
| * Gallbladder             | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Kidney                  | * Larynx                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Mammary Gland          | * Ovary                    |
| * Pancreas                | * Parathyroid Gland         | * Pituitary Gland        | * Skin                     |
| * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 | * Trachea                  |
| * Urinary Bladder         |                             |                          |                            |

MISSING

- \* Lymph Node, Bronchial

OBSERVATIONS

- |                                  |                |                                  |                      |
|----------------------------------|----------------|----------------------------------|----------------------|
| * Adrenal Cortex                 | Subcapsular    | Hyperplasia                      | Mild                 |
| * Bone                           |                | Hemangioma                       |                      |
| * Liver                          |                | Clear Cell Focus                 |                      |
| [ Clear Cell Focus TGLS = 1-11 ] |                |                                  |                      |
| Lymph Node                       | Pancreatic     | Hyperplasia                      | Lymphoid, Marked     |
| * Nose                           | Olfactory Epi  | Degeneration                     | Hyaline, Minimal     |
|                                  |                | Inflammation                     | Chronic Active, Mild |
|                                  | Respirat Epith | Metaplasia                       | Squamous, Mild       |
|                                  | Respirat Epith | Ulcer                            | Minimal              |
| * Salivary Glands                |                | Inflammation                     | Chronic, Minimal     |
| * Spleen                         |                | Hematopoietic Cell Proliferation | Minimal              |
|                                  |                | Pigmentation                     | Hemosiderin, Minimal |
| * Thyroid Gland                  | Follicular Cel | Hyperplasia                      | Focal, Minimal       |
| * Uterus                         |                | Hyperplasia                      | Cystic, Mild         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 198

TRT#: 6

SEX: Female

DAY ON TEST: 614

DOSE: 37.5 PPM

DISP: Moribund Sacrifice

HISTO: 88-02855

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Bone Marrow               | * Brain                  | * Esophagus                |
| * Gallbladder             | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Larynx                  | * Lymph Node, Mandibular    | * Lymph Node, Mesenteric | * Mammary Gland            |
| * Ovary                   | * Pancreas                  | * Pituitary Gland        | * Salivary Glands          |
| * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Trachea                 |                             |                          |                            |

MISSING

- |                         |                     |
|-------------------------|---------------------|
| * Lymph Node, Bronchial | * Parathyroid Gland |
|-------------------------|---------------------|

OBSERVATIONS

- |                              |                |  |                              |
|------------------------------|----------------|--|------------------------------|
| * Adrenal Cortex             | Subcapsular    | Hyperplasia<br>Hypertrophy<br>Dysplasia          | Mild<br>Focal, Minimal       |
| * Bone                       |                | Osteosarcoma                                     | Mild                         |
| * Kidney                     |                | Inflammation                                     | Metastatic (Skeletal Muscle) |
| * Liver                      |                | Osteosarcoma                                     | Chronic, Minimal             |
| * Lung                       |                |  | Metastatic (Skeletal Muscle) |
| [ Osteosarcoma TGLS = 1-6 ]  |                |  |                              |
| * Lymph Node, Mediastinal    |                | Hyperplasia                                      | Lymphoid, Mild               |
| * Nose                       | Respirat Epith | Degeneration                                     | Hyaline, Minimal             |
| Skeletal Muscle              |                | Osteosarcoma                                     |                              |
| [ Osteosarcoma TGLS = 2-11 ] |                |  |                              |
| * Spleen                     |                | Hematopoietic Cell Proliferation<br>Pigmentation | Mild<br>Hemosiderin, Minimal |
| * Thyroid Gland              | Follicle       | Cyst   | Moderate                     |
| * Urinary Bladder            |                | Infiltration Cellular                            | Lymphocyte, Mild             |
| * Uterus                     |                | Hyperplasia                                      | Cystic, Minimal              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 199

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 645

HISTO: 88-02856

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Mammary Gland
* Nose	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Lymphoma Malignant Undifferentiated Cell Type	
* Adrenal Medulla	Lymphoma Malignant Undifferentiated Cell Type	
* Bone	Dysplasia	Minimal
* Bone Marrow	Lymphoma Malignant Undifferentiated Cell Type	
* Gallbladder	Lymphoma Malignant Undifferentiated Cell Type	
* Liver	Lymphoma Malignant Undifferentiated Cell Type	
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 4-5 ]		
* Lung	Lymphoma Malignant Undifferentiated Cell Type	
* Lymph Node, Mandibular	Lymphoma Malignant Undifferentiated Cell Type	
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 5-3,3.1,1-2 ]		
* Lymph Node, Mediastinal	Lymphoma Malignant Undifferentiated Cell Type	
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 5-3,3.1,1-2 ]		
* Lymph Node, Mesenteric	Lymphoma Malignant Undifferentiated Cell Type	
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 5-3,3.1,1-2 ]		
* Ovary	Lymphoma Malignant Undifferentiated Cell Type	
* Pancreas	Lymphoma Malignant Undifferentiated Cell Type	
* Spleen	Lymphoma Malignant Undifferentiated Cell Type	
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 3-5 ]		
* Stomach, Glandular	Lymphoma Malignant Undifferentiated Cell Type	
* Thymus	Atrophy	Mild
* Uterus	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 199

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 645

**DOSE:** 37.5 PPM

**DISP:** Natural Death

**HISTO:** 88-02856

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 200

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02857

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Bone Marrow            | * Esophagus                | * Gallbladder             | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  | * Liver                     |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    |
| * Mammary Gland          | * Pancreas                 | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 |                             |

MISSING

- |                         |                     |
|-------------------------|---------------------|
| * Lymph Node, Bronchial | * Parathyroid Gland |
|-------------------------|---------------------|

OBSERVATIONS

- |                             |                |                                  |                          |
|-----------------------------|----------------|----------------------------------|--------------------------|
| * Adrenal Cortex            | Subcapsular    | Hyperplasia                      | Mild                     |
| * Adrenal Medulla           |                | Hyperplasia                      | Focal, Mild              |
| * Bone                      |                | Dysplasia                        | Mild                     |
| * Brain                     |                | Mineralization                   | Mild                     |
| * Kidney                    | Renal Tubule   | Regeneration                     | Mild                     |
| * Nose                      | Respirat Epith | Degeneration                     | Hyaline, Minimal         |
| * Ovary                     |                | Cyst                             | Marked                   |
| [ Cyst TGLS = 4,5-8 ]       |                |                                  |                          |
| * Pituitary Gland           | Pars Distalis  | Adenoma                          |                          |
|                             | Pars Distalis  | Hyperplasia                      | Mild                     |
| * Salivary Glands           |                | Inflammation                     | Chronic, Minimal         |
| * Skin                      |                | Inflammation                     | Chronic Active, Moderate |
| [ Inflammation TGLS = 1-7 ] |                |                                  |                          |
| * Spleen                    |                | Hematopoietic Cell Proliferation | Minimal                  |
|                             |                | Pigmentation                     | Hemosiderin, Minimal     |
| * Urinary Bladder           |                | Infiltration Cellular            | Lymphocyte, Minimal      |
| * Uterus                    |                | Hyperplasia                      | Cystic, Marked           |
| [ Hyperplasia TGLS = 3-8 ]  |                |                                  |                          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 201

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02858

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

\* Pituitary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Lung			
Note: AGONAL HEMORRHAGE PRESENT. NO LESION.			
* Nose	Olfactory Epi	Metaplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 202

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02859

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Bone	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Pituitary Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Uterus	

**MISSING**

* Larynx	* Lymph Node, Bronchial	* Parathyroid Gland	
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Kidney	Renal Tubule	Pigmentation	Minimal
* Ovary		Cyst	Marked
[ Cyst TGLS = 3-13 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hemangiosarcoma	
[ Hemangiosarcoma TGLS = 2-11 ]			
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 203

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02860

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Moderate
* Nose		Inflammation	Chronic Active, Mild
	Respirat Epith	Metaplasia	Squamous, Mild
	Respirat Epith	Ulcer	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Mild
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicle	Cyst	Mild
	Follicular Cel	Hyperplasia	Focal, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 204

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-02861

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Uterus	

MISSING

* Gallbladder	* Lymph Node, Bronchial	* Lymph Node, Mandibular
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Compression	Mild
* Esophagus		Squamous Cell Carcinoma	
	[ Squamous Cell Carcinoma TGLS = 1-11 ]		
* Kidney	Renal Tubule	Dilatation	Mild
		Infiltration Cellular	Lymphocyte, Minimal
* Lung	Artery	Alveolar/Bronchiolar Adenoma	Multiple
	[ Alveolar/Bronchiolar Adenoma TGLS = 3-13,4-14 ]	Inflammation	Chronic, Moderate
	[ Inflammation TGLS = 2-12 ]		
* Mammary Gland		Hyperplasia	Mild
* Ovary		Cyst	Mild
	[ Cyst TGLS = 7-8 ]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 6-3 ]		
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Moderate
	[ Hyperplasia TGLS = 5-3 ]		
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 204

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 37.5 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02861

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 205

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02862

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Uterus

MISSING

\* Gallbladder

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Marked
* Brain		Mineralization	Mild
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-11 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 206

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02863

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 3-11 ]			
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 1,2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 207

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02864

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Ileum	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Skin	* Thymus
* Thyroid Gland	* Trachea		

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Intestine Small, Duodenum		Ectopic Tissue	
		Proliferation Connective Tissue	
		[ Proliferation Connective Tissue TGLS = 2-5,3-11 ]	
* Intestine Small, Jejunum	Serosa	Inflammation	Chronic Active, Moderate
		Proliferation Connective Tissue	
		[ Proliferation Connective Tissue TGLS = 2-5,3-11 ]	
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Proliferation Connective Tissue	
Note: ADHESION.			
* Lung	Fat, Mediastinum	Inflammation	Chronic Active, Mild
		Necrosis	Moderate
Note: ADHESION.			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Marked
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
	Respirat Epith	Degeneration	Hyaline, Minimal
	Olfactory Epi	Metaplasia	Minimal
* Ovary		Cyst	Marked
		[ Cyst TGLS = 8-8 ]	
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Mild
Skeletal Muscle		Proliferation Connective Tissue	
Note: ADHESION.			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 207	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 729
	<b>DOSE:</b> 37.5 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 88-02864

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Proliferation Connective Tissue TGLS = 11-11 ]		
* Spleen	Hematopoietic Cell Proliferation Hyperplasia Pigmentation	Minimal Lymphoid, Moderate Hemosiderin, Minimal
[ Hyperplasia TGLS = 10-5 ]		
* Stomach, Forestomach	Proliferation Connective Tissue	
* Stomach, Glandular	Proliferation Connective Tissue	
* Urinary Bladder	Infiltration Cellular	Lymphocyte, Moderate
* Uterus	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 9-8 ]		

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PRIMARY CAUSE OF DEATH -

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Animal Note: ADHESION.

Animal Note: RECTUM NOT IN SECTION TAKEN BUT ADDED

Animal Note: ADHESIONS OF ILEUM, CECUM, COLON, AND

Animal Note: ADHESIONS OF STOMACH, LIVER, AND LUNG SEEN.

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 208

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02865

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 3-11 ]			
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Mild
* Ovary		Cyst	Moderate
[ Cyst TGLS = 1,2-8 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Focal, Mild
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Mild
* Thyroid Gland	Follicle	Cyst	Marked
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 209

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02866

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea		

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Liver		Inflammation	Chronic, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
* Nose		Inflammation	Chronic Active, Minimal
	Respirat Epith	Ulcer	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 210

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02867

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Developmental Malformation	
Note: APPARENT DISLOCATION AT RADIUS, ULNAR, TARSAL JUNCTION. [ Developmental Malformation TGLS = 1-11 ]			
* Liver		Cytologic Alterations	Mild
* Lung		Infiltration Cellular	Lymphocyte, Minimal
Note: INCOMPLETELY INFLATED FOCUS.			
* Nose	Respirat Epith	Degeneration	Hyaline, Mild
	Respirat Epith	Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin	Epithelium	Hyperplasia	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 3-8 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 211

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-02868

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

MISSING

* Ovary	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Adrenal Medulla		Hyperplasia	Focal, Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
		Alveolar/Bronchiolar Carcinoma	
		[ Alveolar/Bronchiolar Adenoma TGLS = 3-12 ]	
		[ Alveolar/Bronchiolar Carcinoma TGLS = 2-11 ]	
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Histiocytic Sarcoma	
		Hyperplasia	Cystic, Mild
		[ Histiocytic Sarcoma TGLS = 1-8 ]	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 212

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02869

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea		

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Kidney		Nephropathy	Minimal
* Liver		Hepatocellular Carcinoma	
		Necrosis	Minimal
[ Hepatocellular Carcinoma TGLS = 2-11,12 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Lymphocyte, Mild
[ Alveolar/Bronchiolar Adenoma TGLS = 3-14 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
[ Hematopoietic Cell Proliferation TGLS = 1-5 ]			
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 213

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02870

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 2-8 ]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-3 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 214

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-02871

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Esophagus	* Intestine Small, Ileum
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-11 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Mild
	Respirat Epith	Metaplasia	Squamous, Minimal
* Ovary		Cyst	Moderate
[ Cyst TGLS = 3-8 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-3 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Moderate
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 215

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02872

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Parathyroid Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 1-3 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 216

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02873

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Liver		Eosinophilic Focus	
[ Eosinophilic Focus TGLS = 4-12 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 5-6 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Ovary		Cyst	Marked
[ Cyst TGLS = 3-8 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 217

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02874

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Uterus			

MISSING

* Gallbladder	* Lymph Node, Bronchial
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Lymphocyte, Minimal
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-6.1 ]		
Mesentery	Fat	Necrosis	Mild
	[ Necrosis TGLS = 3-11 ]		
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Ovary		Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 4-3 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Moderate
		Infiltration Cellular	Lymphocyte, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 218

TRT#: 6

SEX: Female

DAY ON TEST: 586

DOSE: 37.5 PPM

DISP: Moribund Sacrifice

HISTO: 88-02875

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Brain		Mineralization	Mild
Lymph Node		Pigmentation	Moderate
[ Pigmentation TGLS = 3-11 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Ovary		Cyst	Marked
[ Cyst TGLS = 2-8 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin		Inflammation	Chronic Active, Marked
		Ulcer	Marked
[ Inflammation TGLS = 1-12 ]			
[ Ulcer TGLS = 1-12 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 4-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 218

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 586

**DOSE:** 37.5 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 88-02875

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: PROBABLY CARBON FROM TATTOO INK.

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 219

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 512

HISTO: 88-02876

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Adrenal Medulla		Pheochromocytoma Malignant	
	[ Pheochromocytoma Malignant TGLS = 2-3,3.1,3.2 ]		
* Ovary		Cyst	Marked
	[ Cyst TGLS = 4-8,8.1 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Uterus		Hyperplasia	Cystic, Mild
	[ Hyperplasia TGLS = 5-8,8.1 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 220

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02877

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 1-11 ]			
* Lung		Inflammation	Chronic Active, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Deciduoma Nos	
		Histiocytic Sarcoma	
		Hyperplasia	Cystic, Mild
		Polyp Stromal	
[ Histiocytic Sarcoma TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 221

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02878

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 2-12 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-3 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Mild
* Thyroid Gland	Follicle	Cyst	Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 222

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02879

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Mammary Gland	* Pancreas	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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OBSERVATIONS

* Bone Marrow		Lymphoma Malignant Mixed	
* Heart	Artery	Inflammation	Chronic, Marked
* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Liver		Hepatocellular Adenoma	
		Inflammation	Chronic, Minimal
[ Hepatocellular Adenoma TGLS = 4-12 ]			
* Lung		Lymphoma Malignant Mixed	
* Lymph Node, Mandibular		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 7-3,2,2.1,6-7 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 7-3,2,2.1,6-7 ]			
* Lymph Node, Mesenteric		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 7-3,2,2.1,6-7 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Ovary		Lymphoma Malignant Mixed	
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Lymphoma Malignant Mixed	
* Spleen		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 3-5 ]			
* Thymus		Lymphoma Malignant Mixed	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 222

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 37.5 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02879

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Uterus

Hyperplasia

Cystic, Mild

[ Hyperplasia TGLS = 2-8 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 223

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02880

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

MISSING

\* Larynx

INSUFFICIENT TISSUE

\* Pituitary Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Lymphocyte, Minimal
		Inflammation	Chronic Active, Minimal
Note: TGL1 NCL, IMCOMPLETELY INFLATED AREA. [ Alveolar/Bronchiolar Adenoma TGLS = 2-12 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 224

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 37.5 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02881

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
		Hyperplasia	Focal, Mild
* Bone		Dysplasia	Minimal
* Intestine Small, Jejunum		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 4-15 ]			
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
		Inflammation	Chronic Active, Mild
[ Hepatocellular Adenoma TGLS = 3-11 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Lymphocyte, Minimal
[ Alveolar/Bronchiolar Adenoma TGLS = 2-14 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hyperplasia	Plasma Cell, Mild
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
	Olfactory Epi	Metaplasia	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 5-3 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 224

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 37.5 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02881

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 225

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02882

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex Islets, Pancreatic	Subcapsular	Hyperplasia Adenoma	Moderate
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver [ Hepatocellular Carcinoma TGLS = 1-11 ]		Hepatocellular Carcinoma	
* Nose	Respirat Epith	Degeneration Exudate	Hyaline, Minimal Serous, Minimal
* Pituitary Gland [ Adenoma TGLS = 2-3 ]	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen [ Lymphoma Malignant Mixed TGLS = 3-5 ]		Lymphoma Malignant Mixed	
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 226

TRT#: 6

DOSE: 37.5 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02883

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-11 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-3,3.1 ]			
* Salivary Glands		Inflammation	Chronic, Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 227

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02884

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Ovary		Cyst	Moderate
[ Cyst TGLS = 1-8 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
Skeletal Muscle		Hemangiosarcoma	
[ Hemangiosarcoma TGLS = 3-11 ]			
* Spleen		Angiectasis	Mild
		Hematopoietic Cell Proliferation	Minimal
[ Angiectasis TGLS = 5-12 ]			
[ Hematopoietic Cell Proliferation TGLS = 4-5 ]			
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 228

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02885

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland	* Ovary
* Pancreas	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Minimal
Clitoral Gland		Dilatation	Moderate
[ Dilatation TGLS = 1-11 ]			
Islets, Pancreatic		Hyperplasia	Focal, Mild
* Liver		Inflammation	Chronic Active, Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hyperplasia	Lymphoid, Marked
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Adenoma	
[ Adenoma TGLS = 4-3,3.1 ]			
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 3-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 229

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02886

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Pituitary Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 1-11 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Marked
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 230

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 37.5 PPM

DISP: Terminal Sacrifice

HISTO: 88-02887

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

\* Lymph Node, Bronchial

**OBSERVATIONS**

* Bone		Dysplasia	Mild
		Hyperostosis	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Pituitary Gland	Pars Distalis	Cyst	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 231

TRT#: 6

SEX: Female

DAY ON TEST: 458

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02888

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Lymph Node, Mandibular		Hemorrhage	Moderate
* Ovary		Cyst	Mild
[ Cyst TGLS = 2-8.1 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 1-8,8.1 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 232

TRT#: 6

SEX: Female

DAY ON TEST: 458

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02889

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Lung			
Note: FOCAL AGONAL HEMORRHAGE PRESENT - NO LESION.			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal
[ Hyperplasia TGLS = 2-8,8.1 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 233

TRT#: 6

SEX: Female

DAY ON TEST: 458

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02890

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Gallbladder

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Mild

[ Hyperplasia TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 234

TRT#: 6

SEX: Female

DAY ON TEST: 458

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02891

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild

[ Hyperplasia TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 235

TRT#: 6

SEX: Female

DAY ON TEST: 458

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02892

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Esophagus	* Pituitary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 4-5,5.1 ]		
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal
	[ Hematopoietic Cell Proliferation TGLS = 1-5,5.1 ]		
* Uterus		Hyperplasia	Cystic, Minimal
	[ Hyperplasia TGLS = 3-8,8.1 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 236

TRT#: 6

SEX: Female

DAY ON TEST: 458

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02893

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Lung	[ Alveolar/Bronchiolar Adenoma TGLS = 2-11 ]	Alveolar/Bronchiolar Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus	[ Hyperplasia TGLS = 1-8 ]	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 237

TRT#: 6

SEX: Female

DAY ON TEST: 458

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02894

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Medulla  
\* Esophagus  
\* Intestine Large, Colon  
\* Intestine Small, Jejunum  
\* Lung  
\* Lymph Node, Mesenteric  
\* Pancreas  
\* Stomach, Forestomach  
\* Trachea

\* Bone  
\* Gallbladder  
\* Intestine Large, Rectum  
\* Kidney  
\* Lymph Node, Bronchial  
\* Mammary Gland  
\* Parathyroid Gland  
\* Stomach, Glandular

\* Bone Marrow  
\* Heart  
\* Intestine Small, Duodenum  
\* Larynx  
\* Lymph Node, Mandibular  
\* Nose  
\* Pituitary Gland  
\* Thymus

\* Brain  
\* Intestine Large, Cecum  
\* Intestine Small, Ileum  
\* Liver  
\* Lymph Node, Mediastinal  
\* Ovary  
\* Skin  
\* Thyroid Gland

OBSERVATIONS

\* Adrenal Cortex  
\* Salivary Glands  
\* Spleen  
  
\* Urinary Bladder  
\* Uterus

Subcapsular

Hyperplasia  
Inflammation  
Hematopoietic Cell Proliferation  
Pigmentation  
Infiltration Cellular  
Hyperplasia

Mild  
Chronic, Minimal  
Minimal  
Hemosiderin, Minimal  
Lymphocyte, Minimal  
Cystic, Mild

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 238

TRT#: 6

SEX: Female

DAY ON TEST: 458

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02895

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-11 ]		
* Lymph Node, Bronchial		Hemorrhage	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
	[ Hyperplasia TGLS = 1-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 239

TRT#: 6

SEX: Female

DAY ON TEST: 458

DOSE: 37.5 PPM

DISP: Scheduled Sacrifice

HISTO: 88-02896

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
---------------------------	---------------------

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild

[ Hyperplasia TGLS = 1-8,8.1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 240

TRT#: 6

SEX: Female

DAY ON TEST: 183

DOSE: 37.5 PPM

DISP: Natural Death

HISTO: 88-02897

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex

\* Adrenal Medulla

\* Bone

\* Bone Marrow

\* Brain

\* Esophagus

\* Gallbladder

\* Heart

\* Intestine Large, Colon

\* Intestine Large, Rectum

\* Kidney

\* Larynx

\* Liver

\* Lung

\* Lymph Node, Mandibular

\* Lymph Node, Mediastinal

\* Mammary Gland

\* Ovary

\* Pancreas

\* Parathyroid Gland

\* Pituitary Gland

\* Skin

\* Stomach, Forestomach

\* Stomach, Glandular

\* Thyroid Gland

\* Trachea

\* Urinary Bladder

\* Uterus

MISSING

\* Intestine Small, Jejunum

\* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

\* Intestine Large, Cecum

\* Intestine Small, Duodenum

\* Intestine Small, Ileum

\* Lymph Node, Mesenteric

OBSERVATIONS

\* Nose

Inflammation

Chronic Active, Minimal

\* Salivary Glands

Inflammation

Chronic Active, Mild

\* Spleen

Pigmentation

Hemosiderin, Mild

\* Thymus

Atrophy

Moderate

[ Atrophy TGLS = 1-2 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 301

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02958

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung	Alveolus	Alveolar/Bronchiolar Carcinoma	
		Infiltration Cellular	Histiocyte, Moderate
		Infiltration Cellular	Lymphocyte, Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 1-11 ]		
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
* Nose	Olfactory Epi	Atrophy	Mild
	Respirat Epith	Degeneration	Hyaline, Mild
		Inflammation	Chronic Active, Mild
	Respirat Epith	Ulcer	Minimal
* Ovary		Cyst	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 302

TRT#: 7

SEX: Female

DAY ON TEST: 729

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02959

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Ovary		Cyst	Moderate
[ Cyst TGLS = 2-8 ]			
* Pituitary Gland		Cyst	Mild
[ Cyst TGLS = 3-3 ]			
* Skin		Inflammation	Chronic Active, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 303

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02960

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex		Cyst	Minimal
	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-11 ]		
* Nose		Exudate	Serous, Minimal
* Ovary		Cyst	Moderate
	[ Cyst TGLS = 1-8 ]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 304

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-02961

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Ovary	* Parathyroid Gland	* Urinary Bladder	* Uterus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Liver		Inflammation	Chronic, Minimal
* Lung	Alveolar Epith	Hyperplasia	Focal, Moderate
[ Hyperplasia TGLS = 1,2-11 ]			
* Mammary Gland		Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-3 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 305

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-02962

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Gallbladder		Inflammation	Chronic, Minimal
* Lung	Alveolar Epith	Hyperplasia	Focal, Moderate
Lymph Node	Lumbar	Angiectasis	Mild
[ Angiectasis TGLS = 2-11 ]			
* Nose	Respirat Epith	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 306

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 434

HISTO: 88-02963

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Colon	* Intestine Small, Duodenum	* Kidney
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

AUTO PRECLUDES DIAG.

\* Intestine Small, Jejunum

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Intestine Large, Cecum		Dilatation	Moderate
* Intestine Large, Rectum		Dilatation	Moderate
* Intestine Small, Ileum		Dilatation	Moderate
* Liver		Infarct	Marked
[ Infarct TGLS = 3-12 ]			
Lymph Node	Iliac	Inflammation	Chronic Active, Mild
[ Inflammation TGLS = 4-12 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Skin	Subcut Tiss	Fibrosarcoma	
[ Fibrosarcoma TGLS = 1-11 ]			
* Spleen		Hematopoietic Cell Proliferation	Marked
[ Hematopoietic Cell Proliferation TGLS = 2-5 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 307

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-02964

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia Hypertrophy Mineralization	Mild Focal, Minimal
* Brain		Infiltration Cellular	Mild
* Kidney		Cytologic Alterations	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma Hepatocellular Carcinoma Inflammation	Mild  Chronic Active, Minimal
		[ Cytologic Alterations TGLS = 3-13,6-13 ]	
		[ Hepatocellular Carcinoma TGLS = 4-11,12 ]	
* Lung		Hepatocellular Carcinoma Inflammation	Metastatic (Liver) Chronic Active, Mild
		[ Hepatocellular Carcinoma TGLS = 5-6 ]	
* Nose		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
		[ Hematopoietic Cell Proliferation TGLS = 2-5 ]	
* Uterus		Hyperplasia	Cystic, Minimal
		[ Hyperplasia TGLS = 1-8 ]	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 307

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02964

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 308

TRT#: 7

SEX: Female

DAY ON TEST: 460

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 88-02965

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Medulla
- \* Esophagus
- \* Intestine Large, Colon
- \* Intestine Small, Jejunum
- \* Lung
- \* Lymph Node, Mesenteric
- \* Pituitary Gland
- \* Stomach, Glandular
- \* Urinary Bladder

- \* Bone
- \* Gallbladder
- \* Intestine Large, Rectum
- \* Kidney
- \* Lymph Node, Bronchial
- \* Mammary Gland
- \* Salivary Glands
- \* Thymus

- \* Bone Marrow
- \* Heart
- \* Intestine Small, Duodenum
- \* Larynx
- \* Lymph Node, Mandibular
- \* Nose
- \* Skin
- \* Thyroid Gland

- \* Brain
- \* Intestine Large, Cecum
- \* Intestine Small, Ileum
- \* Liver
- \* Lymph Node, Mediastinal
- \* Pancreas
- \* Stomach, Forestomach
- \* Trachea

MISSING

- \* Parathyroid Gland

OBSERVATIONS

- \* Adrenal Cortex
- Islets, Pancreatic
- \* Ovary
- \* Spleen
- \* Uterus

Subcapsular

- Hyperplasia
- Hyperplasia
- Cyst
- Hematopoietic Cell Proliferation
- Pigmentation
- Hyperplasia

- Mild
- Focal, Mild
- Minimal
- Minimal
- Hemosiderin, Mild
- Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 309

TRT#: 7

SEX: Female

DAY ON TEST: 628

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02966

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Colon	* Intestine Large, Rectum	* Larynx
* Lymph Node, Mandibular	* Mammary Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Trachea	

MISSING

\* Parathyroid Gland

AUTO PRECLUDES DIAG.

* Intestine Small, Duodenum	* Intestine Small, Jejunum
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OBSERVATIONS

* Adrenal Cortex	Lymphoma Malignant Lymphocytic	
* Adrenal Medulla	Lymphoma Malignant Lymphocytic	
* Brain	Mineralization	Mild
* Intestine Large, Cecum	Lymphoma Malignant Lymphocytic	
* Intestine Small, Ileum	Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLS = 4-7 ]		
* Kidney	Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLS = 7-8 ]		
* Liver	Lymphoma Malignant Lymphocytic Necrosis	Minimal
* Lung	Lymphoma Malignant Lymphocytic	
* Lymph Node, Bronchial	Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLS = 6-7 ]		
* Lymph Node, Mediastinal	Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLS = 6-7 ]		
* Lymph Node, Mesenteric	Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLS = 6-7 ]		
Mesentery	Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLS = 5-11 ]		
* Nose	Respirat Epith	Degeneration
* Ovary	Lymphoma Malignant Lymphocytic	Hyaline, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 309	<b>TRT#:</b> 7	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 628
	<b>DOSE:</b> 75 PPM	<b>DISP:</b> Natural Death	<b>HISTO:</b> 88-02966

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Lymphoma Malignant Lymphocytic TGLS = 8-8 ]		
Oviduct	Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLS = 9-12 ]		
* Pancreas	Lymphoma Malignant Lymphocytic	
* Spleen	Hematopoietic Cell Proliferation	Mild
	Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLS = 1-5 ]		
* Stomach, Glandular	Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLS = 11-4 ]		
* Thymus	Lymphoma Malignant Lymphocytic	
* Thyroid Gland	Follicle Cyst	Marked
* Urinary Bladder	Lymphoma Malignant Lymphocytic	
* Uterus	Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLS = 10-8 ]		
Vagina	Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLS = 12-13 ]		

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 310

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 719

HISTO: 88-02967

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Liver		Necrosis	Moderate
* Lung			
Note: GROSS LESION NOT POSITIVELY IDENTIFIED AT TRIM.			
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal
		Inflammation	Chronic Active, Mild

[ Hyperplasia TGLS = 2-8 ]

[ Inflammation TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 311

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-02968

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Parathyroid Gland
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Gallbladder	* Lymph Node, Bronchial
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OBSERVATIONS

* Adrenal Cortex		Cyst	Mild
		Hypertrophy	Focal, Minimal
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
Islets, Pancreatic		Hyperplasia	Focal, Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	Multiple
		Hepatocellular Carcinoma	
[ Hepatocellular Adenoma TGLS = 7-5,6-12, ]			
[ Hepatocellular Carcinoma TGLS = 8-13 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
	Mediastinum	Hepatocellular Carcinoma	Metastatic (Liver)
		Hepatocellular Carcinoma	Metastatic (Liver)
	Alveolar Epith	Hyperplasia	Focal, Mild
		Infiltration Cellular	Lymphocyte, Minimal
[ Hepatocellular Carcinoma TGLS = 2-11,4-14,5-15,3-16 ]			
[ Hepatocellular Carcinoma TGLS = 2-11,4-14,5-15,3-16 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
* Nose	Respirat Epith	Degeneration	Hyaline, Mild
	Respirat Epith	Hyperplasia	Minimal
* Pancreas	Acinus	Atrophy	Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 311	<b>TRT#:</b> 7 <b>DOSE:</b> 75 PPM	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 731 <b>HISTO:</b> 88-02968
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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	Duct	Dilatation	Moderate
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 312

TRT#: 7

SEX: Female

DAY ON TEST: 730

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02969

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	Multiple
[ Hepatocellular Adenoma TGLS = 2,3-5,11 ]			
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 313

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02970

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Mild
* Brain		Mineralization	Mild
Clitoral Gland		Dilatation	Moderate
* Intestine Large, Cecum		Hyperplasia	Lymphoid, Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Ovary		Cyst	Marked
[ Cyst TGLS = 4-8 ]			
* Skin	Subcut Tiss	Sarcoma	
[ Sarcoma TGLS = 5-13 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 3-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 314

TRT#: 7

SEX: Female

DAY ON TEST: 729

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02971

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 315

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02972

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Moderate
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
		Mixed Cell Focus	
		[ Hepatocellular Adenoma TGLS = 2-5 ]	
		[ Mixed Cell Focus TGLS = 3-12 ]	
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Lymphoma Malignant Mixed	
		Pigmentation	Hemosiderin, Minimal
		[ Lymphoma Malignant Mixed TGLS = 1-11 ]	
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 316

TRT#: 7

SEX: Female

DAY ON TEST: 729

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02973

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Liver		Inflammation	Chronic, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Nose		Inflammation	Chronic Active, Minimal
* Salivary Glands		Atrophy	Minimal
		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland		Inflammation	Chronic, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 317

TRT#: 7

SEX: Female

DAY ON TEST: 663

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 88-02974

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Lung	Alveolar Epith	Hyperplasia	Focal, Marked
* Ovary		Cystadenoma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 318

TRT#: 7

SEX: Female

DAY ON TEST: 730

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02975

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-3 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin	Epithelium	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
		Leiomyosarcoma	

[ Hyperplasia TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 319

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 558

HISTO: 88-02976

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Heart
* Intestine Large, Rectum	* Intestine Small, Ileum	* Larynx	* Pituitary Gland
* Skin	* Thymus	* Thyroid Gland	* Trachea

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Lymphoma Malignant Undifferentiated Cell Type
* Adrenal Medulla	Lymphoma Malignant Undifferentiated Cell Type
* Bone Marrow	Lymphoma Malignant Undifferentiated Cell Type
* Gallbladder	Lymphoma Malignant Undifferentiated Cell Type
* Intestine Large, Cecum	Lymphoma Malignant Undifferentiated Cell Type
* Intestine Large, Colon	Lymphoma Malignant Undifferentiated Cell Type
* Intestine Small, Duodenum	Lymphoma Malignant Undifferentiated Cell Type
* Intestine Small, Jejunum	Lymphoma Malignant Undifferentiated Cell Type
* Kidney	Lymphoma Malignant Undifferentiated Cell Type
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 11-8 ]	
* Liver	Lymphoma Malignant Undifferentiated Cell Type
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 5-5 ]	
* Lung	Lymphoma Malignant Undifferentiated Cell Type
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 10-11 ]	
Lymph Node	Lymphoma Malignant Undifferentiated Cell Type
Inguinal	Lymphoma Malignant Undifferentiated Cell Type
Lumbar	Lymphoma Malignant Undifferentiated Cell Type
Renal	Lymphoma Malignant Undifferentiated Cell Type
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 7-11 ]	
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 1-7 ]	
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 4-12 ]	
* Lymph Node, Bronchial	Lymphoma Malignant Undifferentiated Cell Type
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 4-12,8-7,6-5,7-11,1-7,2-2 ]	
* Lymph Node, Mandibular	Lymphoma Malignant Undifferentiated Cell Type
[ Lymphoma Malignant Undifferentiated Cell Type TGLS = 2-2 ]	

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 319

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 558

HISTO: 88-02976

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mediastinal [ Lymphoma Malignant Undifferentiated Cell Type TGLS = 6-5 ]	Lymphoma Malignant Undifferentiated Cell Type	
* Lymph Node, Mesenteric [ Lymphoma Malignant Undifferentiated Cell Type TGLS = 8-7 ]	Lymphoma Malignant Undifferentiated Cell Type	
* Mammary Gland	Lymphoma Malignant Undifferentiated Cell Type	
* Nose	Lymphoma Malignant Undifferentiated Cell Type	
* Ovary	Lymphoma Malignant Undifferentiated Cell Type	
* Pancreas	Lymphoma Malignant Undifferentiated Cell Type	
* Salivary Glands	Lymphoma Malignant Undifferentiated Cell Type	
* Spleen  [ Lymphoma Malignant Undifferentiated Cell Type TGLS = 3-5 ]	Hematopoietic Cell Proliferation  Lymphoma Malignant Undifferentiated Cell Type	Minimal
* Stomach, Forestomach	Ulcer	Mild
* Stomach, Glandular	Lymphoma Malignant Undifferentiated Cell Type	
* Urinary Bladder	Lymphoma Malignant Undifferentiated Cell Type	
* Uterus  [ Hyperplasia TGLS = 9-8 ]	Hyperplasia  Lymphoma Malignant Undifferentiated Cell Type	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 320

TRT#: 7

SEX: Female

DAY ON TEST: 730

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02977

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

\* Ovary

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Minimal
* Pancreas	Acinus	Atrophy	Moderate
[ Atrophy TGLS = 1-11 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-3 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 321

TRT#: 7

SEX: Female

DAY ON TEST: 660

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02978

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex		Cyst	Moderate
	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Heart	Artery	Hypertrophy	Moderate
Islets, Pancreatic		Hyperplasia	Focal, Moderate
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose		Inflammation	Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thymus		Hyperplasia	Lymphoid, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 322

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-979

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Parathyroid Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea			

**MISSING**

\* Lymph Node, Bronchial

**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Hydronephrosis	Minimal
* Liver		Clear Cell Focus	
		Inflammation	Chronic, Minimal
[ Clear Cell Focus TGLS = 2-11 ]			
* Lung	Alveolar Epith	Hyperplasia	Focal, Marked
		Infiltration Cellular	Lymphocyte, Moderate
* Lymph Node, Mandibular		Lymphoma Malignant Mixed	
* Lymph Node, Mediastinal		Lymphoma Malignant Mixed	
* Nose	Olfactory Epi	Metaplasia	Minimal
* Pancreas		Lymphoma Malignant Mixed	
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Mild
[ Cyst TGLS = 3-3 ]			
* Salivary Glands		Lymphoma Malignant Mixed	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Minimal
[ Hematopoietic Cell Proliferation TGLS = 1-5 ]			
[ Hyperplasia TGLS = 1-5 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 322

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-979

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thymus

Lymphoma Malignant Mixed

\* Urinary Bladder

Lymphoma Malignant Mixed

\* Uterus

Hyperplasia

Cystic, Mild

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 323

TRT#: 7

SEX: Female

DAY ON TEST: 706

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02980

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lung	* Mammary Gland
* Pancreas	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Compression	Moderate
		Mineralization	Minimal
[ Compression TGLS = 3-1 ]			
* Liver		Lymphoma Malignant Mixed	
Lymph Node	Iliac	Lymphoma Malignant Mixed	
	Renal	Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 8,9-12,5-2,10,11-13,7-3,4-7,6-11 ]			
[ Lymphoma Malignant Mixed TGLS = 8,9-12,5-2,10,11-13,7-3,4-7,6-11 ]			
* Lymph Node, Bronchial		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 8,9-12,5-2,10,11-13,7-3,4-7,6-11 ]			
* Lymph Node, Mandibular		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 10,11-13,8,9-12,5-2,7-3,4-7,6-11 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 8,9-12,5-2,10,11-13,7-3,4-7,6-11 ]			
* Lymph Node, Mesenteric		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 10,11-13,5-2,7-3,4-7,6-11,8,9-12 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Ovary		Lymphoma Malignant Mixed	
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-3 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 323

**TRT#:** 7  
**DOSE:** 75 PPM

**SEX:** Female  
**DISP:** Natural Death

**DAY ON TEST:** 706  
**HISTO:** 88-02980

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Salivary Glands	Inflammation	Chronic, Minimal
* Spleen [ Lymphoma Malignant Mixed TGLS = 1-5 ]	Lymphoma Malignant Mixed	
* Thymus	Lymphoma Malignant Mixed	
* Urinary Bladder	Lymphoma Malignant Mixed	
* Uterus	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 324

TRT#: 7

SEX: Female

DAY ON TEST: 730

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02981

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Inflammation	Chronic, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
* Ovary		Cyst	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 325

TRT#: 7

SEX: Female

DAY ON TEST: 730

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02982

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea			

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Bone		Dysplasia	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Adenoma	
[ Adenoma TGLS = 1-3 ]			
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 326

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02983

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

MISSING

* Gallbladder	* Ovary
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Bone Marrow		Lymphoma Malignant Mixed	
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Clear Cell Focus	
		Hepatocellular Adenoma	Multiple
		Lymphoma Malignant Mixed	
	[ Hepatocellular Adenoma TGLS = 2-11,3-13,2-12 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 5-14 ]		
* Nose	Respirat Epith	Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Hyperplasia	Moderate
	[ Angiectasis TGLS = 6-3 ]		
	[ Hyperplasia TGLS = 6-3,3.1 ]		
* Salivary Glands		Inflammation	Chronic, Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 1-5 ]		
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 326

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02983

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 327

TRT#: 7

SEX: Female

DAY ON TEST: 636

DOSE: 75 PPM

DISP: Natural Death

HISTO: 88-02984

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose		Inflammation	Chronic Active, Minimal
* Ovary		Cyst	Marked
[ Cyst TGLS = 1-8 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 328

TRT#: 7

SEX: Female

DAY ON TEST: 730

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02985

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Brain		Mineralization	Mild
* Lymph Node, Mandibular		Hemorrhage	Mild
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 329

TRT#: 7

SEX: Female

DAY ON TEST: 729

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02986

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Liver		Fibrosis	Moderate
		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 3-5 ]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
	[ Hyperplasia TGLS = 2-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 330

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-02987

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Esophagus                | * Gallbladder             | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  | * Mammary Gland             |
| * Pancreas               | * Salivary Glands          | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Trachea                |                            |                           |                             |

MISSING

- \* Parathyroid Gland

OBSERVATIONS

- |                           |               |   |                  |
|---------------------------|---------------|---|------------------|
| * Adrenal Cortex          | Subcapsular   | Hyperplasia                                   | Marked           |
| * Bone                    |               | Dysplasia                                     | Mild             |
| * Bone Marrow             |               | Lymphoma Malignant Mixed                      |                  |
| * Brain                   |               | Mineralization                                | Minimal          |
| * Kidney                  |               | Lymphoma Malignant Mixed                      |                  |
|                           |               | Nephropathy                                   | Mild             |
| * Liver                   |               | Lymphoma Malignant Mixed                      |                  |
|                           |               | [ Lymphoma Malignant Mixed TGLS = 6-5 ]       |                  |
| * Lung                    |               | Lymphoma Malignant Mixed                      |                  |
| Lymph Node                | Lumbar        | Lymphoma Malignant Mixed                      |                  |
|                           | Renal         | Lymphoma Malignant Mixed                      |                  |
|                           |               | [ Lymphoma Malignant Mixed TGLS = 5-15,7-14 ] |                  |
|                           |               | [ Lymphoma Malignant Mixed TGLS = 5-15,7-14 ] |                  |
| * Lymph Node, Bronchial   |               | Lymphoma Malignant Mixed                      |                  |
|                           |               | [ Lymphoma Malignant Mixed TGLS = 5-15,7-14 ] |                  |
| * Lymph Node, Mandibular  |               | Lymphoma Malignant Mixed                      |                  |
|                           |               | [ Lymphoma Malignant Mixed TGLS = 5-15,7-14 ] |                  |
| * Lymph Node, Mediastinal |               | Lymphoma Malignant Mixed                      |                  |
|                           |               | [ Lymphoma Malignant Mixed TGLS = 5-15,7-14 ] |                  |
| * Lymph Node, Mesenteric  |               | Lymphoma Malignant Mixed                      |                  |
|                           |               | [ Lymphoma Malignant Mixed TGLS = 5-15,7-14 ] |                  |
| * Nose                    | Olfactory Epi | Degeneration                                  | Hyaline, Minimal |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite

**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014

**Time Report Requested:** 23:28:05

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

**Lab:** IIT

**ANIMAL ID:** 330

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02987

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Ovary	Respirat Epith	Degeneration Cyst Lymphoma Malignant Mixed	Hyaline, Minimal Mild
[ Cyst TGLS = 3-8 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 11-3 ]			
* Skin		Inflammation	Chronic Active, Mild
* Spleen		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 4-5 ]			
* Thymus		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 8-2,2.1 ]			
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Urinary Bladder		Lymphoma Malignant Mixed	
* Uterus		Developmental Malformation Hyperplasia Lymphoma Malignant Mixed	Cystic, Minimal
[ Developmental Malformation TGLS = 2-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 331

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 415

**DOSE:** 75 PPM

**DISP:** Natural Death

**HISTO:** 88-02988

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Mediastinal	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Uterus		

**AUTO PRECLUDES DIAG.**

* Gallbladder	* Intestine Small, Jejunum
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Brain		Hemorrhage	Mild
Lymph Node	Lumbar	Hemorrhage	Marked
	Renal	Hemorrhage	Marked
	[ Hemorrhage TGLS = 8-12,9-13,2-2,7-7 ]		
	[ Hemorrhage TGLS = 8-12,9-13,2-2,7-7 ]		
* Lymph Node, Bronchial		Hemorrhage	Mild
	[ Hemorrhage TGLS = 9-13,2-2,7-7,8-12 ]		
* Lymph Node, Mandibular		Hemorrhage	Marked
	[ Hemorrhage TGLS = 8-12,9-13,2-2,7-7 ]		
* Lymph Node, Mesenteric		Hemorrhage	Mild
	[ Hemorrhage TGLS = 8-12,9-13,2-2,7-7 ]		
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Spleen		Hematopoietic Cell Proliferation	Marked
	[ Hematopoietic Cell Proliferation TGLS = 4-5 ]		
* Thymus		Atrophy	Marked
		Hemorrhage	Mild
	[ Hemorrhage TGLS = 6-2 ]		
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 331

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 415

**DOSE:** 75 PPM

**DISP:** Natural Death

**HISTO:** 88-02988

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 332

TRT#: 7

SEX: Female

DAY ON TEST: 730

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02989

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Brain		Mineralization	Mild
* Liver		Hematopoietic Cell Proliferation	Mild
		Inflammation	Chronic Active, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 3-11 ]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Marked
	[ Hematopoietic Cell Proliferation TGLS = 4-5 ]		
* Uterus		Hyperplasia	Cystic, Marked
	[ Hyperplasia TGLS = 1,2-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:05

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 333

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02990

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea		

MISSING

* Adrenal Medulla	* Urinary Bladder
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Bone Marrow		Lymphoma Malignant Mixed	
* Brain		Compression	Mild
* Kidney		Lymphoma Malignant Mixed	
* Lung		Alveolar/Bronchiolar Carcinoma	
		Lymphoma Malignant Mixed	
	[ Alveolar/Bronchiolar Carcinoma TGLS = 3-11 ]		
* Mammary Gland		Dilatation	Mild
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
	Respirat Epith	Ulcer	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 2-3 ]		
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Lymphoma Malignant Mixed	
		Pigmentation	Hemosiderin, Minimal
* Thymus		Lymphoma Malignant Mixed	
* Thyroid Gland	Follicle	Cyst	Minimal
	Follicular Cel	Hyperplasia	Focal, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:05  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 333	<b>TRT#:</b> 7	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> 75 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 88-02990

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Uterus		Hyperplasia	Cystic, Mild
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 334

TRT#: 7

SEX: Female

DAY ON TEST: 639

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 88-02991

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Minimal
* Skin			
Note: SKIN LESION NOT APPARENT AT TRIM.			
* Spleen		Pigmentation	Hemosiderin, Mild
* Thymus		Atrophy	Moderate
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 335

TRT#: 7

SEX: Female

DAY ON TEST: 585

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 88-02992

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Hemorrhage	Marked
[ Hemorrhage TGLS = 3-1 ]			
* Kidney	Renal Tubule	Dilatation	Minimal
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-3 ]			
Skeletal Muscle		Hemorrhage	Marked
[ Hemorrhage TGLS = 1-11 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Moderate
* Thymus		Atrophy	Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 336

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02993

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 8-17 ]			
* Liver		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 5-5,3-12,4-14,15,16 ]			
Lymph Node	Lumbar	Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 7-18 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 7-18 ]			
Mesentery	Fat	Necrosis	Mild
Note: LESION 1 IS NORMAL FAT.			
[ Necrosis TGLS = 6-19 ]			
* Nose	Respirat Epith	Hyperplasia	Minimal
* Ovary		Cyst	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 2-11 ]			
* Thymus		Lymphoma Malignant Mixed	
* Uterus		Hyperplasia	Cystic, Moderate

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 336

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02993

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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:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 337

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02994

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Uterus			

**MISSING**

* Lymph Node, Mediastinal	* Parathyroid Gland	* Thymus
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Brain		Compression	Mild
		Mineralization	Minimal
* Heart		Thrombosis	Moderate
* Kidney	Renal Tubule	Dilatation	Mild
		Infiltration Cellular	Lymphocyte, Minimal
[ Dilatation TGLS = 4-8 ]			
* Liver	Hepatocyte	Necrosis	Minimal
* Lung	Alveolar Epith	Hyperplasia	Focal, Moderate
[ Hyperplasia TGLS = 5-6 ]			
* Mammary Gland		Adenocarcinoma	
[ Adenocarcinoma TGLS = 1-11 ]			
* Ovary		Cyst	Mild
[ Cyst TGLS = 2-8 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 6-3 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Mild
[ Hematopoietic Cell Proliferation TGLS = 3-5 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 337

**TRT#:** 7  
**DOSE:** 75 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 731  
**HISTO:** 88-02994

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thyroid Gland

Follicle  
Follicular Cel

Cyst  
Hyperplasia  
Infiltration Cellular

Moderate  
Focal, Mild  
Lymphocyte, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 338

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-02995

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea			

OBSERVATIONS

* Bone		Dysplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Liver	Periportal	Fatty Change	Minimal
		Hepatocellular Adenoma	Multiple
	[ Hepatocellular Adenoma TGLS = 1-11,2-12 ]		
* Lung	Alveolar Epith	Hyperplasia	Focal, Mild
		Infiltration Cellular	Lymphocyte, Minimal
	[ Hyperplasia TGLS = 4-14 ]		
* Mammary Gland		Adenoma	
* Nose	Olfactory Epi	Exudate	Serous, Minimal
		Metaplasia	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 5-3 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Diffuse, Marked
		Inflammation	Chronic, Moderate
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
	[ Hyperplasia TGLS = 3-8 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 338

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-02995

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 339

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 996

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea

MISSING

\* Gallbladder

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Minimal
* Liver		Hepatocellular Adenoma	Multiple
[ Hepatocellular Adenoma TGLS = 3,4-5,5.1,11 ]			
* Lung	Alveolar Epith	Hyperplasia	Focal, Moderate
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin	Epithelium	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicle	Cyst	Minimal
[ Cyst TGLS = 5-3 ]			
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 340

TRT#: 7

SEX: Female

DAY ON TEST: 729

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02997

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Pituitary Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

* Lymph Node, Bronchial	* Parathyroid Gland
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Mild
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 341

TRT#: 7

SEX: Female

DAY ON TEST: 729

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02998

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Bone Marrow            | * Esophagus                | * Gallbladder             | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Kidney                  | * Larynx                    |
| * Liver                  | * Lung                     | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   |
| * Mammary Gland          | * Nose                     | * Ovary                   | * Pancreas                  |
| * Parathyroid Gland      | * Salivary Glands          | * Skin                    | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

MISSING

- |                         |                          |
|-------------------------|--------------------------|
| * Lymph Node, Bronchial | * Lymph Node, Mesenteric |
|-------------------------|--------------------------|

OBSERVATIONS

- |                            |               |                                  |                      |
|----------------------------|---------------|----------------------------------|----------------------|
| * Adrenal Cortex           | Subcapsular   | Hyperplasia                      | Mild                 |
| * Adrenal Medulla          |               | Hyperplasia                      | Focal, Mild          |
| * Bone                     |               | Dysplasia                        | Moderate             |
| * Brain                    |               | Compression                      | Mild                 |
| [ Compression TGLS = 2-1 ] |               |                                  |                      |
| * Pituitary Gland          | Pars Distalis | Adenoma                          |                      |
| [ Adenoma TGLS = 1-3 ]     |               |                                  |                      |
| * Spleen                   |               | Hematopoietic Cell Proliferation | Minimal              |
|                            |               | Pigmentation                     | Hemosiderin, Minimal |
| * Uterus                   |               | Hyperplasia                      | Cystic, Minimal      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 342

TRT#: 7

SEX: Female

DAY ON TEST: 729

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-02999

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver			
Note: LESION TGL4 NOT SEEN IN ORIGINAL OR RECUT.			
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-3 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hyperplasia	Lymphoid, Mild
		Pigmentation	Hemosiderin, Minimal
[ Hyperplasia TGLS = 1-5 ]			
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
		Inflammation	Chronic, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 343

TRT#: 7

SEX: Female

DAY ON TEST: 730

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-03000

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Brain		Mineralization	Mild
* Lung	Alveolar Epith	Hyperplasia	Focal, Mild
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
Tooth		Odontoma	
* Uterus		Hyperplasia	Cystic, Marked

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 344

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-023001

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Mediastinal	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
		Infiltration Cellular	Lymphocyte, Minimal
		[ Alveolar/Bronchiolar Adenoma TGLS = 4,5-11 ]	
* Lymph Node, Mandibular		Lymphoma Malignant Mixed	
* Lymph Node, Mesenteric		Lymphoma Malignant Mixed	
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Lymphoma Malignant Mixed	
* Spleen		Hematopoietic Cell Proliferation	Mild
		Lymphoma Malignant Mixed	
		[ Lymphoma Malignant Mixed TGLS = 1-5 ]	
* Thymus		Hyperplasia	Lymphoid, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Marked
		[ Hyperplasia TGLS = 2-8 ]	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 345

TRT#: 7

SEX: Female

DAY ON TEST: 729

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-88-03002

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Ovary	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Liver		Inflammation	Chronic, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Mild
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 346

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-03003

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
Harderian Gland		Adenoma	
[ Adenoma TGLS = 1-11 ]			
* Ovary		Cystadenoma	
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-3 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 347

TRT#: 7

SEX: Female

DAY ON TEST: 730

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-03004

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Inflammation	Chronic Active, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose		Inflammation	Chronic Active, Minimal
	Respirat Epith	Ulcer	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Hemosiderin, Minimal
* Thymus		Hyperplasia	Lymphoid, Mild
* Thyroid Gland	Follicular Cel	Adenoma	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 348

TRT#: 7

SEX: Female

DAY ON TEST: 729

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 88-03005

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lung	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mandibular
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Liver		Inflammation	Chronic, Minimal
Mesentery	Fat	Necrosis	Mild
[ Necrosis TGLS = 2-11 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland		Ectopic Thymus	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 350

TRT#: 7

SEX: Female

DAY ON TEST: 558

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 88-03007

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Inflammation	Chronic Active, Minimal
* Lung		Adenoma	
[ Adenoma TGLS = 2-11 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal
[ Hyperplasia TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 351

TRT#: 7

SEX: Female

DAY ON TEST: 458

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03008

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Marked
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Hemosiderin, Mild
* Thymus		Hyperplasia	Lymphoid, Mild
* Uterus		Hyperplasia	Cystic, Mild

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 352

TRT#: 7

SEX: Female

DAY ON TEST: 458

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03009

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea			

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Lung	Alveolar Epith	Hyperplasia	Focal, Minimal
* Nose		Inflammation	Chronic Active, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 353

TRT#: 7

SEX: Female

DAY ON TEST: 458

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03010

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Uterus

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Nose		Inflammation	Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 354

TRT#: 7

SEX: Female

DAY ON TEST: 458

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03011

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 2-6 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 355

TRT#: 7

DOSE: 75 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 210

HISTO: 88-03012

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
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Adrenal Medulla	* Lymph Node, Bronchial
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AUTO PRECLUDES DIAG.

* Gallbladder
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
Lymph Node	Iliac	Hemorrhage	Mild
* Lymph Node, Mediastinal		Inflammation	Chronic Active, Mild
[ Inflammation TGLS = 7-5 ]			
* Ovary		Granulosa Cell Tumor Malignant	
[ Granulosa Cell Tumor Malignant TGLS = 3-11 ]			
Oviduct			
Note: NOT POSITIVELY IDENTIFIED-DISRUPTED BY LG NEOPLASM			
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Thymus		Atrophy	Moderate
[ Atrophy TGLS = 6-2 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 356

TRT#: 7

SEX: Female

DAY ON TEST: 458

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03013

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 357

TRT#: 7

SEX: Female

DAY ON TEST: 458

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03014

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Medulla
- \* Esophagus
- \* Intestine Large, Colon
- \* Intestine Small, Jejunum
- \* Lung
- \* Lymph Node, Mesenteric
- \* Pancreas
- \* Skin
- \* Thyroid Gland

- \* Bone
- \* Gallbladder
- \* Intestine Large, Rectum
- \* Kidney
- \* Lymph Node, Bronchial
- \* Mammary Gland
- \* Parathyroid Gland
- \* Stomach, Forestomach
- \* Trachea

- \* Bone Marrow
- \* Heart
- \* Intestine Small, Duodenum
- \* Larynx
- \* Lymph Node, Mandibular
- \* Nose
- \* Pituitary Gland
- \* Stomach, Glandular
- \* Urinary Bladder

- \* Brain
- \* Intestine Large, Cecum
- \* Intestine Small, Ileum
- \* Liver
- \* Lymph Node, Mediastinal
- \* Ovary
- \* Salivary Glands
- \* Thymus

OBSERVATIONS

- \* Adrenal Cortex
- \* Spleen
- \* Uterus

Subcapsular

Hyperplasia  
 Hematopoietic Cell Proliferation  
 Pigmentation  
 Hyperplasia

Minimal  
 Minimal  
 Hemosiderin, Minimal  
 Cystic, Mild

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 358

TRT#: 7

SEX: Female

DAY ON TEST: 458

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03015

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Parathyroid Gland
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**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 359

TRT#: 7

SEX: Female

DAY ON TEST: 458

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03016

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Bone                    | * Bone Marrow               | * Brain                  |
| * Esophagus                | * Gallbladder             | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Larynx                  | * Liver                     | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric |
| * Mammary Gland            | * Nose                    | * Ovary                     | * Pancreas               |
| * Parathyroid Gland        | * Pituitary Gland         | * Salivary Glands           | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

OBSERVATIONS

- |   |              |                                  |                     |
|---|--------------|----------------------------------|---------------------|
| * Adrenal Cortex                          | Subcapsular  | Hyperplasia                      | Minimal             |
| * Kidney                                  |              | Infiltration Cellular            | Lymphocyte, Minimal |
| * Skin                                    | Sebaceous GI | Hyperplasia                      | Focal, Mild         |
| Note: ADDED SECTION OF SKIN FOR ALOPECIA. |              |                                  |                     |
| Note: HAD NO MICROSCOPIC LESION.          |              |                                  |                     |
| [ Hyperplasia TGLS = 2-11 ]               |              |                                  |                     |
| * Spleen                                  |              | Hematopoietic Cell Proliferation | Minimal             |
|   |              | Pigmentation                     | Hemosiderin, Mild   |
| * Uterus                                  |              | Hyperplasia                      | Cystic, Mild        |
| [ Hyperplasia TGLS = 3-8 ]                |              |                                  |                     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 360

TRT#: 7

SEX: Female

DAY ON TEST: 458

DOSE: 75 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03017

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Bone                    | * Bone Marrow               | * Brain                  |
| * Esophagus                | * Gallbladder             | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Kidney                  | * Larynx                    | * Liver                  |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric |
| * Mammary Gland            | * Nose                    | * Ovary                     | * Pancreas               |
| * Parathyroid Gland        | * Pituitary Gland         | * Skin                      | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

MISSING

Clitoral Gland

OBSERVATIONS

- |                   |             |                                  |                   |
|-------------------|-------------|----------------------------------|-------------------|
| * Adrenal Cortex  | Subcapsular | Hyperplasia                      | Minimal           |
| * Lung            |             | Alveolar/Bronchiolar Adenoma     |                   |
| * Salivary Glands |             | Inflammation                     | Chronic, Minimal  |
| * Spleen          |             | Hematopoietic Cell Proliferation | Minimal           |
|                   |             | Pigmentation                     | Hemosiderin, Mild |
| * Uterus          |             | Hyperplasia                      | Cystic, Mild      |

[ Hyperplasia TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 421

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03078

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

MISSING

* Esophagus	* Lymph Node, Bronchial	* Lymph Node, Mandibular
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Olfactory Epi Respirat Epith	Atrophy Degeneration Exudate Cystadenoma	Mild Hyaline, Mild Serous, Mild
* Ovary			
[ Cystadenoma TGLS = 2-8 ]			
* Pituitary Gland	Pars Distalis	Angiectasis	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 422

TRT#: 8

SEX: Female

DAY ON TEST: 583

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03079

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Rectum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea

MISSING

\* Parathyroid Gland

AUTO PRECLUDES DIAG.

* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Compression	
[ Compression TGLS = 5-1,12 ]			
* Mammary Gland		Hyperplasia	Moderate
[ Hyperplasia TGLS = 3-7 ]			
* Nose	Olfactory Epi	Atrophy	Mild
		Inflammation	Chronic Active, Minimal
	Olfactory Epi	Metaplasia	Mild
	Respirat Epith	Metaplasia	Squamous, Minimal
	Respirat Epith	Ulcer	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-3,3.1 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thymus		Atrophy	Moderate
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 2-8 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 422

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 583

**DOSE:** 150 PPM

**DISP:** Natural Death

**HISTO:** 88-03079

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 423

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03080

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Brain	Meninges	Inflammation	Chronic Active, Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Inflammation	Chronic, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
		Infiltration Cellular	Lymphocyte, Minimal
[ Alveolar/Bronchiolar Adenoma TGLS = 5-12,6-13 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Hemosiderin, Minimal
[ Hyperplasia TGLS = 4-5 ]			
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 2,3-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 424

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-03081

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Parathyroid Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Mild
	Renal Tubule	Regeneration	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
		Infiltration Cellular	Lymphocyte, Minimal
		[ Alveolar/Bronchiolar Adenoma TGLS = 4-12,6-13 ]	
* Lymph Node, Mandibular		Lymphoma Malignant Mixed	
Mesentery		Lymphoma Malignant Mixed	
	Fat	Necrosis	Mild
		[ Necrosis TGLS = 2-11 ]	
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Pancreas		Lymphoma Malignant Mixed	
* Pituitary Gland	Pars Distalis	Adenoma	
		[ Adenoma TGLS = 5-3 ]	
* Salivary Glands		Lymphoma Malignant Mixed	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Lymphoma Malignant Mixed	
		Pigmentation	Hemosiderin, Mild
		[ Lymphoma Malignant Mixed TGLS = 3-5 ]	
* Thymus		Lymphoma Malignant Mixed	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 424

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 150 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-03081

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Uterus

Hyperplasia

Cystic, Moderate

[ Hyperplasia TGLS = 1-8 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 425

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03082

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Larynx

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Basophilic Focus	
[ Basophilic Focus TGLS = 2-12 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
* Nose	Olfactory Epi	Atrophy	Mild
		Inflammation	Chronic Active, Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Mild
* Thymus		Hyperplasia	Lymphoid, Mild
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 3-8 ]			
Vagina		Squamous Cell Carcinoma	
[ Squamous Cell Carcinoma TGLS = 1-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 426

TRT#: 8

SEX: Female

DAY ON TEST: 494

DOSE: 150 PPM

DISP: Moribund Sacrifice

HISTO: 88-03083

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Ovary	* Thymus
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OBSERVATIONS

* Gallbladder		Dilatation	Mild
[ Dilatation TGLS = 2-5 ]			
Islets, Pancreatic		Hyperplasia	Focal, Moderate
Lymph Node	Iliac	Pigmentation	Mild
	Inguinal	Pigmentation	Mild
[ Pigmentation TGLS = 5-11.1,1-11 ]			
[ Pigmentation TGLS = 5-11.1,1-11 ]			
* Spleen		Pigmentation	Hemosiderin, Moderate
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 4-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 427

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03084

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
Harderian Gland		Adenoma	
[ Adenoma TGLS = 3-13 ]			
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-12 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 1-11 ]		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Exudate	Serous, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 4-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 428

TRT#: 8

SEX: Female

DAY ON TEST: 625

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03085

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Ovary	* Pancreas
* Parathyroid Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Pituitary Gland	* Thymus
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Small, Duodenum
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Mild
* Lung		Alveolar/Bronchiolar Adenoma	
* Mammary Gland		Dilatation	Moderate
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Pigmentation	Hemosiderin, Moderate
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

[ Hyperplasia TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 429

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03086

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Brain		Mineralization	Minimal
Eye		Phthisis Bulbi	Marked
	[ Phthisis Bulbi TGLS = 5-15 ]		
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver			
	Note: PROSECTOR INDUCED TRAUMA PRESENT.		
* Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Lymphocyte, Minimal
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-13 ]		
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Mild
	Respirat Epith	Metaplasia	Squamous, Mild
* Ovary		Granulosa Cell Tumor Benign	
	[ Granulosa Cell Tumor Benign TGLS = 4-11 ]		
* Pituitary Gland	Pars Distalis	Adenoma	
* Skin		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 429

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 150 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-03086

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Urinary Bladder

Infiltration Cellular

Lymphocyte, Minimal

\* Uterus

Hyperplasia

Cystic, Marked

[ Hyperplasia TGLS = 6-8,8.1 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 430

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03087

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 3-12 ]	Infiltration Cellular	Lymphocyte, Minimal
* Nose		Exudate	Serous, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Marked
	[ Hyperplasia TGLS = 2-8 ]		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 431

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03088

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea			

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Compression	Moderate
[ Compression TGLS = 5-1 ]			
Islets, Pancreatic		Hyperplasia	Focal, Mild
* Liver		Angiectasis	Minimal
[ Angiectasis TGLS = 2-13 ]			
* Mammary Gland		Hyperplasia	Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-11 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Skin		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thymus		Atrophy	Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 431

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 150 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-03088

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 432

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-03089

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
Clitoral Gland	Ear	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	Islets, Pancreatic
* Kidney	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	Vagina

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Liver		Inflammation	Chronic, Minimal
* Nose		Exudate	Serous, Minimal
* Ovary		Cyst	Moderate
[ Cyst TGLS = 3-8 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Hemosiderin, Minimal
[ Hyperplasia TGLS = 2-5 ]			
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
		Myxoma	
[ Myxoma TGLS = 4-12 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 433

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03090

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Brain	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Mammary Gland
* Nose	* Ovary	* Parathyroid Gland	* Pituitary Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone		Dysplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Lymphocyte, Minimal
		[ Alveolar/Bronchiolar Adenoma TGLS = 1-11 ]	
* Lymph Node, Mesenteric		Angiectasis	Mild
Mesentery	Fat	Necrosis	Moderate
		[ Necrosis TGLS = 2-2,2.1 ]	
* Pancreas	Acinus	Atrophy	Marked
		[ Atrophy TGLS = 3-12 ]	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Mild
		[ Hyperplasia TGLS = 4-8 ]	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 434

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-03091

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	Clitoral Gland
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland
* Skin	* Stomach, Glandular	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Bronchial	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Hemorrhage	Mild
[ Hemorrhage TGLS = 4-1 ]			
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Mammary Gland		Dilatation	Mild
[ Dilatation TGLS = 1-11 ]			
* Nose	Olfactory Epi	Atrophy	Minimal
		Exudate	Serous, Minimal
* Ovary		Cyst	Minimal
* Pancreas	Acinus	Atrophy	Marked
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-3 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Stomach, Forestomach		Developmental Malformation	
[ Developmental Malformation TGLS = 2-12 ]			
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 435

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 724

**DOSE:** 150 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 88-03092

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
Peripheral Nerve	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

**MISSING**

\* Lymph Node, Bronchial

**OBSERVATIONS**

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 3-12 ]			
Lymph Node	Lumbar	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-11 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Exudate	Serous, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
Spinal Cord		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Moderate
* Thymus		Atrophy	Moderate
* Uterus		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 436

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-03093

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mandibular
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 1-11 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolus	Infiltration Cellular	Histiocyte, Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 3-13 ]		
	[ Hyperplasia TGLS = 2-12,12.1 ]		
* Nose	Olfactory Epi	Atrophy	Minimal
		Exudate	Serous, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 437

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-03094

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
Harderian Gland		Adenoma	
[ Adenoma TGLS = 4-13 ]			
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Infarct	Moderate
[ Infarct TGLS = 3-12 ]			
* Lung	Alveolar Epith	Hyperplasia	Focal, Minimal
		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Olfactory Epi	Atrophy	Minimal
	Respirat Epith	Degeneration	Hyaline, Minimal
		Exudate	Serous, Minimal
* Ovary		Cyst	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Marked
[ Hyperplasia TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 438

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03095

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Bronchial	* Pituitary Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Bone		Dysplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Exudate	Serous, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Marked

[ Hyperplasia TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 439

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03096

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Kidney		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 3-8,4-11,5-14 ]		
* Liver		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 2-13 ]		
* Lung	Alveolar Epith	Hyperplasia	Focal, Marked
* Nose		Inflammation	Chronic Active, Minimal
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Thymus		Lymphoma Malignant Mixed	
* Uterus		Hyperplasia	Cystic, Marked
	[ Hyperplasia TGLS = 6-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 440

TRT#: 8

SEX: Female

DAY ON TEST: 603

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03097

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Medulla  
\* Heart  
\* Lung  
\* Ovary  
\* Salivary Glands  
\* Thymus

\* Bone Marrow  
\* Kidney  
\* Lymph Node, Bronchial  
\* Pancreas  
\* Skin  
\* Thyroid Gland

\* Brain  
\* Larynx  
\* Lymph Node, Mediastinal  
\* Parathyroid Gland  
\* Stomach, Forestomach  
\* Trachea

\* Esophagus  
\* Liver  
\* Mammary Gland  
\* Pituitary Gland  
\* Stomach, Glandular

**AUTO PRECLUDES DIAG.**

\* Gallbladder  
\* Intestine Small, Duodenum  
\* Urinary Bladder

\* Intestine Large, Cecum  
\* Intestine Small, Ileum

\* Intestine Large, Colon  
\* Intestine Small, Jejunum

\* Intestine Large, Rectum  
\* Lymph Node, Mesenteric

**OBSERVATIONS**

\* Adrenal Cortex  
\* Bone  
\* Lymph Node, Mandibular  
\* Nose  
\* Spleen

Subcapsular

Hyperplasia  
Dysplasia  
Lymphoma Malignant Lymphocytic  
Exudate  
Hematopoietic Cell Proliferation  
Lymphoma Malignant Lymphocytic  
Pigmentation  
Hyperplasia

Mild  
Minimal  
Serous, Mild  
Minimal  
Hemosiderin, Mild  
Cystic, Mild

[ Hyperplasia TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 441

TRT#: 8

SEX: Female

DAY ON TEST: 485

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03098

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Pituitary Gland
* Salivary Glands	* Skin	* Thyroid Gland	* Trachea
* Uterus			

MISSING

\* Parathyroid Gland

AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Kidney		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 6-8 ]			
* Liver		Hemorrhage	Mild
		Histiocytic Sarcoma	
		Necrosis	Mild
[ Hemorrhage TGLS = 9-12 ]			
[ Histiocytic Sarcoma TGLS = 4-5,5.1,11,12 ]			
* Lung		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 1,7-6 ]			
* Lymph Node, Mesenteric		Histiocytic Sarcoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 442

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03099

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Gallbladder	* Lymph Node, Bronchial	* Parathyroid Gland	* Pituitary Gland
* Thymus			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney	Renal Tubule	Dilatation	Moderate
		Glomerulosclerosis	Moderate
		Infiltration Cellular	Lymphocyte, Mild
* Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 4-11,12 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-14 ]	Hepatocellular Carcinoma	Metastatic (Liver)
* Ovary		Cyst	Mild
	[ Hemorrhage TGLS = 5-8 ]	Hemorrhage	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Hemosiderin, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 443

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-03100

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Lymphoma Malignant Mixed	
* Kidney		Lymphoma Malignant Mixed	
* Liver		Inflammation	Chronic, Minimal
* Lung		Lymphoma Malignant Mixed	
* Lymph Node, Bronchial		Lymphoma Malignant Mixed	
* Lymph Node, Mediastinal		Lymphoma Malignant Mixed	
* Pancreas		Inflammation	Chronic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-3 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 2-5 ]		Pigmentation	Hemosiderin, Minimal
* Thymus		Lymphoma Malignant Mixed	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 444

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-03101

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Kidney		Infarct	Minimal
		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	Multiple
	[ Hepatocellular Adenoma TGLS = 4-12,3-13 ]		
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Focal, Marked
	Alveolus	Infiltration Cellular	Histiocyte, Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 1-11 ]		
	[ Hyperplasia TGLS = 2-14.1 ]		
	[ Infiltration Cellular TGLS = 2-14 ]		
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
	Olfactory Epi	Metaplasia	Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thymus		Ectopic Parathyroid Gland	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 444

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 150 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-03101

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hyperplasia TGLS = 5-8 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 445

TRT#: 8

SEX: Female

DAY ON TEST: 692

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03102

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                           |                          |                            |
|--------------------------|---------------------------|--------------------------|----------------------------|
| * Adrenal Medulla        | * Bone                    | * Heart                  | * Intestine Large, Cecum   |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Larynx                 | * Lymph Node, Mesenteric  | * Skin                   | * Stomach, Glandular       |
| * Thyroid Gland          | * Trachea                 | * Uterus                 |                            |

MISSING

- |             |                     |          |
|-------------|---------------------|----------|
| * Esophagus | * Parathyroid Gland | * Thymus |
|-------------|---------------------|----------|

AUTO PRECLUDES DIAG.

- \* Intestine Small, Duodenum

OBSERVATIONS

- |                           |   |                                |      |
|---------------------------|---|--------------------------------|------|
| * Adrenal Cortex          | Subcapsular   | Hyperplasia                    | Mild |
| * Bone Marrow             |   | Lymphoma Malignant Lymphocytic |      |
| * Brain                   |   | Mineralization                 | Mild |
| * Gallbladder             |   | Lymphoma Malignant Lymphocytic |      |
| * Kidney                  |   | Lymphoma Malignant Lymphocytic |      |
| * Liver                   |   | Lymphoma Malignant Lymphocytic |      |
|                           | [ Lymphoma Malignant Lymphocytic TGLS = 12-5 ]                                |                                |      |
| * Lung                    |   | Lymphoma Malignant Lymphocytic |      |
| Lymph Node                | Inguinal  | Lymphoma Malignant Lymphocytic |      |
|                           | Lumbar  | Lymphoma Malignant Lymphocytic |      |
|                           | Renal   | Lymphoma Malignant Lymphocytic |      |
|                           | [ Lymphoma Malignant Lymphocytic TGLS = 8,9-14,11-16,1,2-15,5,6-12,4-11,3-2 ] |                                |      |
|                           | [ Lymphoma Malignant Lymphocytic TGLS = 8,9-14,11-16,1,2-15,5,6-12,4-11,3-2 ] |                                |      |
|                           | [ Lymphoma Malignant Lymphocytic TGLS = 8,9-14,11-16,1,2-15,5,6-12,4-11,3-2 ] |                                |      |
| * Lymph Node, Bronchial   |   | Lymphoma Malignant Lymphocytic |      |
|                           | [ Lymphoma Malignant Lymphocytic TGLS = 8,9-14,11-16,1,2-15,5,6-12,4-11,3-2 ] |                                |      |
| * Lymph Node, Mandibular  |   | Lymphoma Malignant Lymphocytic |      |
|                           | [ Lymphoma Malignant Lymphocytic TGLS = 8,9-14,11-16,5,6-12,4-11,3-2,1,2-15 ] |                                |      |
| * Lymph Node, Mediastinal |   | Lymphoma Malignant Lymphocytic |      |
|                           | [ Lymphoma Malignant Lymphocytic TGLS = 8,9-14,11-16,1,2-15,5,6-12,4-11,3-2 ] |                                |      |
| * Mammary Gland           |   | Lymphoma Malignant Lymphocytic |      |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05185-04

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite

**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014

**Time Report Requested:** 23:28:06

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

**Lab:** IIT

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**ANIMAL ID:** 445

**TRT#:** 8

**DOSE:** 150 PPM

**SEX:** Female

**DISP:** Natural Death

**DAY ON TEST:** 692

**HISTO:** 88-03102

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Ovary		Lymphoma Malignant Lymphocytic	
* Pancreas		Lymphoma Malignant Lymphocytic	
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Lymphoma Malignant Lymphocytic	
* Spleen		Lymphoma Malignant Lymphocytic	
[ Lymphoma Malignant Lymphocytic TGLS = 7-5 ]			
* Stomach, Forestomach		Lymphoma Malignant Lymphocytic	
* Urinary Bladder		Lymphoma Malignant Lymphocytic	

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 446

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 721

HISTO: 88-03103

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Liver	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Esophagus	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Parathyroid Gland
* Thymus			

AUTO PRECLUDES DIAG.

\* Gallbladder

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Heart	Artery	Inflammation	Chronic, Mild
* Larynx	Artery	Inflammation	Chronic, Mild
* Lymph Node, Mandibular		Hemorrhage	Moderate
* Nose	Olfactory Epi	Atrophy	Minimal
	Olfactory Epi	Degeneration	Hyaline, Minimal
		Exudate	Serous, Mild
		Hemorrhage	Marked
* Salivary Glands			
[ Hemorrhage TGLS = 2-2 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Moderate
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 447

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03104

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea

MISSING

* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
	Respirat Epith	Degeneration	Hyaline, Mild
		Inflammation	Chronic Active, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
	Respirat Epith	Ulcer	Minimal
* Ovary		Cyst	Marked
[ Cyst TGLS = 1-8,8.1 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 448

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-03105

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Moderate
* Brain		Mineralization	Moderate
Clitoral Gland		Dilatation	Mild
		Pigmentation	Mild
[ Pigmentation TGLS = 2-12 ]			
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Ovary		Cyst	Moderate
[ Cyst TGLS = 4-8.1 ]			
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Marked
[ Hyperplasia TGLS = 3-8,8.1 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 449

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-03106

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Liver		Hepatocellular Adenoma	
		Inflammation	Chronic, Minimal
[ Hepatocellular Adenoma TGLS = 1-11 ]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Nose		Exudate	Serous, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thyroid Gland	Follicular Cel	Adenoma	
* Uterus		Histiocytic Sarcoma	
		Hyperplasia	Cystic, Minimal
[ Histiocytic Sarcoma TGLS = 2-13 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 450

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03107

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
-------------------------	---------------------

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Clear Cell Focus	
[ Clear Cell Focus TGLS = 2-12.1 ]			
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Nose	Olfactory Epi	Atrophy	Mild
	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 451

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-03108

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Moderate
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Lymphoma Malignant Mixed	
* Lung		Infiltration Cellular	Lymphocyte, Minimal
Lymph Node	Lumbar	Lymphoma Malignant Mixed	
[ Lymphoma Malignant Mixed TGLS = 4-13 ]			
* Nose	Olfactory Epi	Atrophy	Mild
		Exudate	Serous, Mild
* Ovary		Cyst	Moderate
[ Cyst TGLS = 1-8 ]			
* Pancreas		Inflammation	Chronic, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 6-3 ]			
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Lymphoma Malignant Mixed	
		Pigmentation	Hemosiderin, Minimal
[ Lymphoma Malignant Mixed TGLS = 3-5 ]			
* Thymus		Lymphoma Malignant Mixed	
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 451

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 150 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-03108

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**ORGAN AND ACCOUNTABLE SITE STATUS**

\* Urinary Bladder

Infiltration Cellular

Lymphocyte, Minimal

\* Uterus

Hyperplasia

Cystic, Minimal

Leiomyosarcoma

[ Leiomyosarcoma TGLS = 2-11 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 452

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 88-03109

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Carcinoma	
		Infiltration Cellular	Lymphocyte, Minimal
		[ Alveolar/Bronchiolar Carcinoma TGLS = 3-6 ]	
* Nose	Olfactory Epi	Atrophy	Minimal
		Exudate	Serous, Minimal
* Ovary		Infiltration Cellular	Lymphocyte, Minimal
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild
		[ Hyperplasia TGLS = 1-8,8.1 ]	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 453

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03110

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Bone	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Uterus			

**MISSING**

* Adrenal Cortex	* Adrenal Medulla	* Lymph Node, Bronchial	* Thymus
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**OBSERVATIONS**

* Brain		Mineralization	Minimal
* Liver		Inflammation	Chronic, Minimal
* Lung	Alveolar Epith	Hyperplasia	Focal, Minimal
* Spleen		Pigmentation	Hemosiderin, Minimal
Tooth		Odontoma	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 454

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03111

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Inflammation	Chronic, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Lymphocyte, Minimal
	[ Alveolar/Bronchiolar Adenoma TGLS = 4-12 ]		
Lymph Node	Pancreatic	Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 1-11 ]		
* Lymph Node, Bronchial		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 1-11 ]		
* Lymph Node, Mandibular		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 1-11 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 1-11 ]		
* Nose	Olfactory Epi	Degeneration	Hyaline, Minimal
	Respirat Epith	Degeneration	Hyaline, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Mild
		Lymphoma Malignant Mixed	
		Pigmentation	Hemosiderin, Minimal
	[ Lymphoma Malignant Mixed TGLS = 2-5 ]		
* Thymus		Lymphoma Malignant Mixed	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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<b>ANIMAL ID:</b> 454	<b>TRT#:</b> 8	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 730
	<b>DOSE:</b> 150 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 88-03111

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Mild
* Uterus		Hyperplasia	Cystic, Minimal

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 455

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-03112

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Pituitary Gland	* Skin	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Liver		Mixed Cell Focus	
* Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Lymphocyte, Mild
		[ Alveolar/Bronchiolar Adenoma TGLS = 3-12 ]	
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Stomach, Forestomach		Angiectasis	Mild
		[ Angiectasis TGLS = 2-11 ]	
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
		[ Hyperplasia TGLS = 1-8 ]	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 456

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03113

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Mammary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Liver		Hyperplasia	Moderate
[ Hyperplasia TGLS = 1-11 ]			
* Lung		Infiltration Cellular	Lymphocyte, Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Nose	Olfactory Epi	Metaplasia	Squamous, Minimal
* Ovary		Cyst	Mild
* Pancreas		Inflammation	Chronic, Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Salivary Glands		Inflammation	Chronic, Moderate
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Hyperplasia	Focal, Minimal
* Uterus		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 457

TRT#: 8

SEX: Female

DAY ON TEST: 65

DOSE: 150 PPM

DISP: Accidentally Killed

HISTO: 88-03114

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex

\* Adrenal Medulla

\* Bone Marrow

\* Brain

\* Esophagus

\* Heart

\* Intestine Large, Rectum

\* Kidney

\* Larynx

\* Liver

\* Lung

\* Lymph Node, Bronchial

\* Mammary Gland

\* Nose

\* Ovary

\* Pancreas

\* Pituitary Gland

\* Salivary Glands

\* Skin

\* Stomach, Forestomach

\* Stomach, Glandular

\* Thymus

\* Thyroid Gland

\* Trachea

\* Urinary Bladder

MISSING

\* Lymph Node, Mandibular

\* Lymph Node, Mediastinal

\* Parathyroid Gland

\* Uterus

AUTO PRECLUDES DIAG.

\* Gallbladder

\* Intestine Large, Cecum

\* Intestine Large, Colon

\* Intestine Small, Duodenum

\* Intestine Small, Ileum

\* Intestine Small, Jejunum

\* Lymph Node, Mesenteric

OBSERVATIONS

\* Bone

Maxilla

Fracture

[ Fracture TGLS = 1-9 ]

\* Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Hemosiderin, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 458

TRT#: 8

SEX: Female

DAY ON TEST: 731

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03115

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Nose		Exudate	Serous, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Marked

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 459

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03116

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Nose	Olfactory Epi Respirat Epith	Atrophy Degeneration Exudate	Minimal Hyaline, Minimal Serous, Minimal
* Ovary		Cyst	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Marked

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 460

TRT#: 8

SEX: Female

DAY ON TEST: 71

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03117

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Colon	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

**AUTO PRECLUDES DIAG.**

* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mesenteric		

**OBSERVATIONS**

* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Moderate
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 461

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 88-03118

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Gallbladder	* Lymph Node, Bronchial
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Marked
* Brain		Mineralization	Mild
* Kidney	Renal Tubule	Hyperplasia	Focal, Marked
		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Carcinoma	
		Pigmentation	Mild
		[ Hepatocellular Carcinoma TGLS = 1-11 ]	
* Lung	Alveolar Epith	Hepatocellular Carcinoma	Metastatic (Liver)
		Hyperplasia	Focal, Mild
* Ovary		Angiectasis	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Marked
		[ Hyperplasia TGLS = 2-8 ]	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 462

TRT#: 8

SEX: Female

DAY ON TEST: 716

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03119

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

AUTO PRECLUDES DIAG.

\* Gallbladder

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 1-11 ]		
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
	[ Hepatocellular Carcinoma TGLS = 2-12,5-14,6-15 ]		
* Lymph Node, Mesenteric		Hemangioma	
* Nose		Exudate	Serous, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Thymus		Atrophy	Marked
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 463

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-03120

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone Marrow	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
		[ Hepatocellular Adenoma TGLS = 4-12 ]	
		[ Hepatocellular Carcinoma TGLS = 5-11 ]	
* Lung		Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Lymphocyte, Minimal
		[ Alveolar/Bronchiolar Adenoma TGLS = 6-16 ]	
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
	Respirat Epith	Hyperplasia	Minimal
Skeletal Muscle		Sarcoma	
		[ Sarcoma TGLS = 7-13,14 ]	
* Skin		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate
		[ Hyperplasia TGLS = 3-8 ]	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 463

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 150 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-03120

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 464

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03121

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Mixed Cell Focus	
* Lung		Alveolar/Bronchiolar Adenoma	
* Nose		Exudate	Serous, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Mild
		Polyp Stromal	

[ Hyperplasia TGLS = 1-8 ]

[ Polyp Stromal TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 465

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03122

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Infiltration Cellular	Lymphocyte, Mild
* Nose	Olfactory Epi	Atrophy	Mild
		Exudate	Serous, Mild
* Pituitary Gland	Pars Distalis	Cyst	Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 466

TRT#: 8

SEX: Female

DAY ON TEST: 114

DOSE: 150 PPM

DISP: Natural Death

HISTO: 88-03123

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Gallbladder	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Heart		Lymphoma Malignant Lymphocytic	
* Lung	Mediastinum	Lymphoma Malignant Lymphocytic	
* Lymph Node, Bronchial		Lymphoma Malignant Lymphocytic	
	[ Lymphoma Malignant Lymphocytic TGLS = 1-3,3.1,2-5 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant Lymphocytic	
	[ Lymphoma Malignant Lymphocytic TGLS = 1-3,3.1,2-5 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Minimal
* Thymus		Lymphoma Malignant Lymphocytic	
	[ Lymphoma Malignant Lymphocytic TGLS = 3-2 ]		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 467

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-03124

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Brain		Mineralization	Minimal
* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-6 ]	Infiltration Cellular	Lymphocyte, Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Nose	Olfactory Epi	Atrophy	Minimal
		Exudate	Serous, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
	[ Hyperplasia TGLS = 4-3,3.1 ]		
* Salivary Glands		Inflammation	Chronic, Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Hemosiderin, Minimal
* Thyroid Gland	Follicular Cel	Adenoma	
	Follicular Cel	Hyperplasia	Focal, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Moderate
* Uterus		Hyperplasia	Cystic, Marked
	[ Hyperplasia TGLS = 3-8 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 467

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 150 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-03124

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 468

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 646

HISTO: 88-03125

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Heart	* Intestine Large, Colon	* Intestine Large, Rectum	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Ovary	* Pancreas	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Bronchial	* Parathyroid Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Large, Cecum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mesenteric		

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 5-6 ]			
* Nose	Olfactory Epi	Atrophy	Mild
		Exudate	Serous, Mild
	Respirat Epith	Ulcer	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Moderate
* Thymus		Atrophy	Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Mild
* Uterus		Hyperplasia	Cystic, Marked
[ Hyperplasia TGLS = 4-8,8.1 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 469

TRT#: 8

DOSE: 150 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: 88-03126

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Minimal
* Gallbladder		Inflammation	Chronic, Mild
* Liver		Hepatocellular Adenoma	Multiple
		Inflammation	Chronic, Minimal
	[ Hepatocellular Adenoma TGLS = 3-11,5-5 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Focal, Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 4-12 ]		
* Nose	Olfactory Epi	Atrophy	Mild
		Exudate	Serous, Mild
* Ovary		Cyst	Mild
	[ Cyst TGLS = 2-8 ]		
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Thymus		Hyperplasia	Lymphoid, Mild
* Uterus		Hyperplasia	Cystic, Moderate
	[ Hyperplasia TGLS = 1-8 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite  
**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014  
**Time Report Requested:** 23:28:06  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 469

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 150 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 88-03126

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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: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 470

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 150 PPM

DISP: Terminal Sacrifice

HISTO: 88-03127

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Larynx
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mandibular
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OBSERVATIONS

* Adrenal Cortex	Subcapsular	Lymphoma Malignant Mixed	
* Brain		Mineralization	Mild
* Intestine Small, Jejunum		Lymphoma Malignant Mixed	
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Liver		Hyperplasia	Moderate
		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 3-5 ]		
* Lung	Alveolar Epith	Hyperplasia	Focal, Minimal
Lymph Node	Inguinal	Lymphoma Malignant Mixed	
	Renal	Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 7-7,4-11,5-12 ]		
	[ Lymphoma Malignant Mixed TGLS = 7-7,4-11,5-12 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 7-7,4-11,5-12 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant Mixed	
	[ Lymphoma Malignant Mixed TGLS = 7-7,4-11,5-12 ]		
* Nose	Olfactory Epi	Atrophy	Minimal
		Exudate	Serous, Minimal
* Ovary		Cyst	Moderate
		Lymphoma Malignant Mixed	
* Pancreas		Lymphoma Malignant Mixed	
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05185-04

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Isobutyl nitrite

**CAS Number:** 542-56-3

**Date Report Requested:** 10/15/2014

**Time Report Requested:** 23:28:06

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

**Lab:** IIT

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**ANIMAL ID:** 470

**TRT#:** 8

**DOSE:** 150 PPM

**SEX:** Female

**DISP:** Terminal Sacrifice

**DAY ON TEST:** 730

**HISTO:** 88-03127

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Skin	Inflammation	Chronic, Minimal
* Spleen [ Lymphoma Malignant Mixed TGLS = 2-5 ]	Lymphoma Malignant Mixed	
* Thymus	Lymphoma Malignant Mixed	
* Urinary Bladder	Infiltration Cellular	Lymphocyte, Minimal
* Uterus	Hyperplasia	Cystic, Mild

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 471

TRT#: 8

SEX: Female

DAY ON TEST: 458

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03128

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Mild
* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Uterus		Hyperplasia	Cystic, Mild

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 472

TRT#: 8

SEX: Female

DAY ON TEST: 458

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03129

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Brain		Mineralization	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 4-11 ]		
* Nose		Inflammation	Chronic Active, Minimal
* Ovary		Cyst	Moderate
	[ Cyst TGLS = 2,3-8,8.1 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Mild
* Uterus		Hyperplasia	Cystic, Mild
	[ Hyperplasia TGLS = 1-8,8.1 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 473

TRT#: 8

SEX: Female

DAY ON TEST: 458

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03130

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Uterus		Hyperplasia	Cystic, Mild

[ Hyperplasia TGLS = 2-8,8.1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 474

TRT#: 8

SEX: Female

DAY ON TEST: 458

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03131

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Mild
* Bone		Dysplasia	Mild
* Brain		Mineralization	Mild
* Ovary		Cyst	Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Moderate

[ Hyperplasia TGLS = 1-8,8.1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 475

TRT#: 8

SEX: Female

DAY ON TEST: 458

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03132

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Lung		Infiltration Cellular	Lymphocyte, Minimal
* Salivary Glands		Inflammation	Chronic, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Uterus		Hyperplasia	Cystic, Mild

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 476

TRT#: 8

SEX: Female

DAY ON TEST: 458

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03133

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Brain		Mineralization	Minimal
Clitoral Gland		Pigmentation	Mild
[ Pigmentation TGLS = 1-8,8.1 ]			
* Nose	Respirat Epith	Degeneration	Hyaline, Minimal
		Inflammation	Chronic Active, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Urinary Bladder		Infiltration Cellular	Lymphocyte, Minimal
* Uterus		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 477

TRT#: 8

SEX: Female

DAY ON TEST: 458

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03134

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex	Subcapsular	Hyperplasia	Minimal
* Bone		Dysplasia	Minimal
* Brain		Mineralization	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Hemosiderin, Mild
* Uterus		Hyperplasia	Cystic, Moderate

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 478

TRT#: 8

SEX: Female

DAY ON TEST: 458

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03135

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Bone                    | * Bone Marrow               | * Brain                  |
| * Esophagus                | * Gallbladder             | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Kidney                  | * Larynx                    | * Liver                  |
| * Lung                     | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric |
| * Mammary Gland            | * Ovary                   | * Pancreas                  | * Pituitary Gland        |
| * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Thyroid Gland            | * Trachea                 |                             |                          |

MISSING

- |                         |                     |
|-------------------------|---------------------|
| * Lymph Node, Bronchial | * Parathyroid Gland |
|-------------------------|---------------------|

OBSERVATIONS

- |                   |                |                                  |                         |
|-------------------|----------------|----------------------------------|-------------------------|
| * Adrenal Cortex  | Subcapsular    | Hyperplasia                      | Mild                    |
| * Nose            | Respirat Epith | Degeneration                     | Hyaline, Mild           |
|                   |                | Inflammation                     | Chronic Active, Minimal |
| * Salivary Glands |                | Inflammation                     | Chronic, Minimal        |
| * Spleen          |                | Hematopoietic Cell Proliferation | Minimal                 |
|                   |                | Pigmentation                     | Hemosiderin, Mild       |
| * Urinary Bladder |                | Infiltration Cellular            | Lymphocyte, Minimal     |
| * Uterus          |                | Angiectasis                      | Mild                    |
|                   |                | Hyperplasia                      | Cystic, Minimal         |

[ Angiectasis TGLS = 2-11.1 ]

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 479

TRT#: 8

SEX: Female

DAY ON TEST: 458

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03136

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

**OBSERVATIONS**

Clitoral Gland [ Pigmentation TGLS = 1-8 ]	Pigmentation	Mild
* Nose	Inflammation	Chronic Active, Minimal
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Hemosiderin, Mild
* Uterus	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05185-04

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Isobutyl nitrite

CAS Number: 542-56-3

Date Report Requested: 10/15/2014

Time Report Requested: 23:28:06

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 480

TRT#: 8

SEX: Female

DAY ON TEST: 458

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO: 88-03137

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Medulla

\* Bone

\* Bone Marrow

\* Brain

\* Esophagus

\* Gallbladder

\* Heart

\* Intestine Large, Cecum

\* Intestine Large, Colon

\* Intestine Large, Rectum

\* Intestine Small, Duodenum

\* Intestine Small, Ileum

\* Intestine Small, Jejunum

\* Kidney

\* Larynx

\* Liver

\* Lung

\* Lymph Node, Bronchial

\* Lymph Node, Mandibular

\* Lymph Node, Mediastinal

\* Lymph Node, Mesenteric

\* Mammary Gland

\* Nose

\* Ovary

\* Pancreas

\* Parathyroid Gland

\* Pituitary Gland

\* Salivary Glands

\* Skin

\* Stomach, Forestomach

\* Stomach, Glandular

\* Thymus

\* Thyroid Gland

\* Trachea

\* Urinary Bladder

**OBSERVATIONS**

\* Adrenal Cortex

Subcapsular

Hyperplasia

Mild

\* Spleen

Hematopoietic Cell Proliferation

Minimal

\* Uterus

Pigmentation

Hemosiderin, Mild

Hyperplasia

Cystic, Mild

[ Hyperplasia TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

**\*\* END OF REPORT \*\***

\* PROTOCOL REQUIRED TISSUE