

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**C Number:** C00862  
**Lock Date:** 04/19/1994  
**Cage Range:** All  
**Date Range:** All  
**Reasons For Removal:** All  
**Removal Date Range:** All  
**Treatment Groups:** All  
**Study Gender:** Both  
**PWG Approval Date:** 08/26/1994

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

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<b>ANIMAL ID:</b> 1	<b>TRT#:</b> 1 <b>DOSE:</b> 0 MG/M3	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 660 <b>HISTO:</b> MZ031/E001
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**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	* Islets, Pancreatic
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea		

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**MISSING**

\* Lymph Node, Mediastinal

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**OBSERVATIONS**

* Kidney [ Inflammation TGLS = 3-3 ]	Pelvis	Inflammation	Suppurative, Mild
Lymph Node [ Hyperplasia TGLS = 5-11 ]	Iliac	Hyperplasia	Lymphoid, Moderate
* Parathyroid Gland		Cyst	
* Preputial Gland [ Inflammation TGLS = 1,2-6 ]		Inflammation	Suppurative, Marked
* Spleen		Hematopoietic Cell Proliferation	Mild
* Testes		Inflammation	Suppurative, Mild
* Urinary Bladder [ Inflammation TGLS = 4-5,9 ]		Inflammation	Suppurative, Marked

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 3 <b>DOSE:</b> 0 MG/M3 LUNGTX	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 637 <b>HISTO:</b> MZ031/E002
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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 | * Islets, Pancreatic      | * 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         | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Testes                  | * Thymus                    | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         |                             |                          |

OBSERVATIONS

- |                                 |           |                 |                                     |
|---------------------------------|-----------|-----------------|-------------------------------------|
| * Bone                          |           | Hemangiosarcoma | Metastatic (Uncertain Primary Site) |
| * Bone Marrow                   |           | Hemangiosarcoma | Metastatic (Uncertain Primary Site) |
| * Preputial Gland               | Bilateral | Ectasia         | Mild                                |
| [ Ectasia TGLS = 1-6 ]          |           |                 |                                     |
| Tissue NOS                      |           | Hemangiosarcoma |                                     |
| [ Hemangiosarcoma TGLS = 2-10 ] |           |                 |                                     |

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 3

TRT#: 1

SEX: Male

DAY ON TEST: 737

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E003

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

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

* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Minimal
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Preputial Gland		Inflammation	Suppurative, Marked

[ Inflammation TGLS = 1-6 ]

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 4

TRT#: 1

SEX: Male

DAY ON TEST: 675

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E004

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

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

Lymph Node	Iliac	Hyperplasia	Lymphoid, Mild
	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 6-10,3-13 ]			
[ Hyperplasia TGLS = 6-10,3-13 ]			
Penis		Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 1-11 ]			
* Preputial Gland		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 4-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-12 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 1 <b>DOSE:</b> 0 MG/M3	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 584 <b>HISTO:</b> MZ031/E005
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ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Heart	* Kidney
* Larynx	* Lung	* Mammary Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Testes	* Trachea
* Urinary Bladder			

**MISSING**

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Spleen
* Thymus			

**AUTO PRECLUDES DIAG.**

* Bone Marrow	* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Nose	* Pancreas
* Parathyroid Gland	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland			

**OBSERVATIONS**

* Liver	Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 1-3,9 ]		
* Preputial Gland	Ectasia	Mild

PRIMARY CAUSE OF DEATH	-
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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 1 <b>DOSE:</b> 0 MG/M3	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 738 <b>HISTO:</b> MZ031/E006
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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|-----------------------------|--------------------------|----------------------------|---------------------------|
| * 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 | * Islets, Pancreatic      |
| * Kidney                    | * Larynx                 | * Lung                     | * Lymph Node, Bronchial   |
| * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Mammary Gland            | * Nose                    |
| * Pancreas                  | * Parathyroid Gland      | * Pituitary Gland          | * Prostate                |
| * Salivary Glands           | * Seminal Vesicle        | * Spleen                   | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Testes                 | * Thyroid Gland            | * Trachea                 |

MISSING

- |          |                   |
|----------|-------------------|
| * Thymus | * Urinary Bladder |
|----------|-------------------|

OBSERVATIONS

- |  |           |                                |                |
|--|-----------|--------------------------------|----------------|
| * Liver                                |           | Cyst<br>Hepatocellular Adenoma |                |
| [ Cyst TGLS = 1-3 ]                    |           |                                |                |
| [ Hepatocellular Adenoma TGLS = 2-10 ] |           |                                |                |
| * Lymph Node, Mandibular               |           | Hyperplasia                    | Lymphoid, Mild |
| * Preputial Gland                      | Bilateral | Ectasia                        | Marked         |

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 737
	<b>DOSE:</b> 0 MG/M3	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> MZ031/E007

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* 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	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
	[ Hepatocellular Adenoma TGLS = 1-9 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-4 ]		
* Preputial Gland	Bilateral	Ectasia	Moderate
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

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<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 1 <b>DOSE:</b> 0 MG/M3	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 290 <b>HISTO:</b> MZ031/E008
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Adrenal Cortex	* 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	* Islets, Pancreatic	* Larynx
* Liver	* Lung	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

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**MISSING**

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland
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**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

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**OBSERVATIONS**

* Bone [ Inflammation TGLS = 4-12 ]	Vertebra	Inflammation	Suppurative, Marked
* Kidney [ Dilatation TGLS = 8-3 ]	Pelvis	Dilatation	Mild
Lymph Node [ Hyperplasia TGLS = 7-9 ]	Iliac	Hyperplasia	Lymphoid, Mild
* Preputial Gland [ Ectasia TGLS = 5-6 ]	Bilateral	Ectasia	Moderate
Skin [ Inflammation TGLS = 2,3,4-10,11,12 ]		Inflammation	Suppurative, Marked
* Spleen		Hematopoietic Cell Proliferation	Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

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<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 1 <b>DOSE:</b> 0 MG/M3	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 559 <b>HISTO:</b> MZ031/E009
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**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

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**MISSING**

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

Lymph Node [ Hyperplasia TGLS = 5-10 ]	Inguinal	Hyperplasia	Lymphoid, Mild
* Nose Penis [ Inflammation TGLS = 3-9 ]	Respirat Epith	Degeneration Inflammation	Minimal Suppurative, Marked
* Preputial Gland [ Inflammation TGLS = 4-6,9 ]		Inflammation	Suppurative, Marked
Skin [ Inflammation TGLS = 1,2-11,12 ]		Inflammation	Suppurative, Marked
* Spleen		Hematopoietic Cell Proliferation	Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 512

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E010

**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	* Islets, Pancreatic
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

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

* Kidney [ Dilatation TGLS = 4-3 ]	Pelvis	Dilatation	Mild
Lymph Node [ Hyperplasia TGLS = 2-9 ]	Iliac	Hyperplasia	Lymphoid, Mild
* Preputial Gland [ Ectasia TGLS = 1-6 ]		Ectasia	Minimal
Skin [ Inflammation TGLS = 3-10 ]		Inflammation	Suppurative, Marked
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 12

TRT#: 1

SEX: Male

DAY ON TEST: 599

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E012

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal
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OBSERVATIONS

* Liver	Hepatocyte	Cytoplasmic Alteration	Mild
[ Cytoplasmic Alteration TGLS = 1-3 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 2-4 ]			
* Preputial Gland	Bilateral	Ectasia	Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 13

TRT#: 1

SEX: Male

DAY ON TEST: 666

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031-E013

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	* Islets, Pancreatic
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Thymus
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OBSERVATIONS

* Kidney [ Dilatation TGLS = 7-3 ]	Pelvis	Dilatation	Mild
Lymph Node [ Hyperplasia TGLS = 3-10,8-13,6-12 ]	Iliac	Hyperplasia	Histiocytic, Mild
[ Hyperplasia TGLS = 3-10,8-13,6-12 ]	Inguinal	Hyperplasia	Mild
[ Hyperplasia TGLS = 3-10,8-13,6-12 ]	Renal	Hyperplasia	Histiocytic, Mild
* Lymph Node, Mesenteric [ Inflammation TGLS = 5-5 ]		Inflammation	Suppurative, Mild
Penis [ Concretion TGLS = 1-9 ]		Concretion	Mild
* Preputial Gland [ Inflammation TGLS = 2-6 ]		Ectasia	Mild
		Inflammation	Suppurative, Marked
Skin [ Inflammation TGLS = 4-11 ]		Inflammation	Suppurative, Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 13

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 666

**DOSE:** 0 MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031-E013

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 14

TRT#: 1

SEX: Male

DAY ON TEST: 559

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031-014

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Kidney [ Dilatation TGLS = 6-3 ]	Pelvis	Dilatation	Mild
* Lung [ Alveolar/Bronchiolar Carcinoma TGLS = 7-4 ]		Alveolar/Bronchiolar Carcinoma	
Penis [ Inflammation TGLS = 3-10 ]		Inflammation	Chronic, Moderate
* Preputial Gland [ Inflammation TGLS = 4-6,9 ]		Inflammation	Suppurative, Marked
Skin [ Inflammation TGLS = 1,2-11,12 ]		Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 15

TRT#: 1

SEX: Male

DAY ON TEST: 510

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E015

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

**MISSING**

\* Parathyroid Gland

**OBSERVATIONS**

Lymph Node [ Hyperplasia TGLS = 1-10 ]	Inguinal	Hyperplasia	Lymphoid, Mild
* Preputial Gland [ Ectasia TGLS = 2-6 ]	Bilateral	Ectasia	Moderate
Skin		Inflammation	Suppurative, Marked
* Spleen [ Hematopoietic Cell Proliferation TGLS = 4-3 ]		Hematopoietic Cell Proliferation	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 16

TRT#: 1

SEX: Male

DAY ON TEST: 738

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E016

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

\* Intestine Large, Rectum

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Focal, Marked
	[ Alveolar/Bronchiolar Adenoma TGLS = 4-4,4A ]		
	[ Alveolar/Bronchiolar Carcinoma TGLS = 3-4 ]		
	[ Hyperplasia TGLS = 5-4A ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 1-6 ]		
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 17

TRT#: 3

SEX: Male

DAY ON TEST: 458

DOSE: 0 MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/E017

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 | * Islets, Pancreatic      |
| * Kidney                    | * Larynx                  | * Liver                    | * 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          | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular      | * Testes                   | * Thymus                  |
| * Trachea                   | * Urinary Bladder         |                            |                           |

OBSERVATIONS

- |                   |   |                              |                  |
|-------------------|---|------------------------------|------------------|
| * Lung            |   | Alveolar/Bronchiolar Adenoma |                  |
|                   | Alveolar Epith                              | Hyperplasia                  | Focal, Moderate  |
|                   |   | Inflammation                 | Chronic, Minimal |
|                   | [ Alveolar/Bronchiolar Adenoma TGLS = 4-4 ] |                              |                  |
| * Preputial Gland |   | Ectasia                      | Minimal          |
|                   | [ Ectasia TGLS = 1-6 ]                      |                              |                  |
| * Thyroid Gland   | Follicular Cel                              | Adenoma                      |                  |
|                   | [ Adenoma TGLS = 3-2 ]                      |                              |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 18

TRT#: 1

SEX: Male

DAY ON TEST: 602

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031-E018

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	* Islets, Pancreatic
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mediastinal	* Mammary Gland	* Thymus
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OBSERVATIONS

* Kidney [ Dilatation TGLS = 6-3 ]	Pelvis	Dilatation	Minimal
Lymph Node [ Hyperplasia TGLS = 3-11,7-10 ] [ Hyperplasia TGLS = 3-11,7-10 ]	Iliac Inguinal	Hyperplasia Hyperplasia	Lymphoid, Mild Lymphoid, Mild
* Lymph Node, Mesenteric Penis [ Inflammation TGLS = 2-6 ]		Inflammation Inflammation	Suppurative, Moderate Suppurative, Marked
* Preputial Gland [ Inflammation TGLS = 4-6 ]		Ectasia Inflammation	Moderate Suppurative, Minimal
Skin [ Inflammation TGLS = 1-9 ]		Inflammation	Suppurative, Moderate
* Spleen [ Hematopoietic Cell Proliferation TGLS = 5-3 ]		Hematopoietic Cell Proliferation	Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 19

TRT#: 1

SEX: Male

DAY ON TEST: 607

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E019

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

**MISSING**

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

* Lymph Node, Mesenteric [ Congestion TGLS = 5-5 ]	Congestion	Minimal
* Preputial Gland [ Inflammation TGLS = 1-6 ]	Inflammation	Suppurative, Mild
Skin [ Inflammation TGLS = 2-9 ]	Inflammation	Suppurative, Moderate
* Spleen [ Hematopoietic Cell Proliferation TGLS = 4-3 ]	Hematopoietic Cell Proliferation	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 20

TRT#: 1

SEX: Male

DAY ON TEST: 738

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E020

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	* Islets, Pancreatic	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Kidney		Nephropathy	Mild
* Liver		Hepatocellular Adenoma	Multiple
		Hepatocellular Carcinoma	
[ Hepatocellular Adenoma TGLS = 3,4-12,11 ]			
[ Hepatocellular Carcinoma TGLS = 2-9 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 21

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 508

**DOSE:** 0 MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/E021

**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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

\* Parathyroid Gland

**AUTO PRECLUDES DIAG.**

\* Gallbladder

**OBSERVATIONS**

* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 22	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 430
	<b>DOSE:</b> 0 MG/M3	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> MZ031/E022

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

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**MISSING**

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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**OBSERVATIONS**

Penis [ Inflammation TGLS = 3-9 ]	Inflammation	Suppurative, Marked
* Prostate [ Inflammation TGLS = 1-10 ]	Inflammation	Suppurative, Moderate
* Spleen	Hematopoietic Cell Proliferation	Mild
* Thymus	Atrophy	Moderate

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 24

TRT#: 1

SEX: Male

DAY ON TEST: 738

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E024

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Bone		Hyperostosis	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 3-9 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Mild
* Preputial Gland		Inflammation	Chronic, Marked
[ Inflammation TGLS = 1,2-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Urinary Bladder		Calculus Micro Observation Only	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 25	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 162
	<b>DOSE:</b> 0 MG/M3	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> MZ031/E025

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

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

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**MISSING**

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland
* Prostate			

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**OBSERVATIONS**

* Preputial Gland	Ectasia	Mild
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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 26

TRT#: 1

SEX: Male

DAY ON TEST: 697

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E026

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

**MISSING**

\* Prostate

**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

**OBSERVATIONS**

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 6-3 ]			
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-12 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
Penis		Inflammation	Suppurative, Mild
[ Inflammation TGLS = 5-9 ]			
* Preputial Gland		Ectasia	Mild
[ Ectasia TGLS = 4-6 ]			
Skin		Alopecia	
[ Alopecia TGLS = 1-11 ]		Inflammation	Suppurative, Mild
[ Inflammation TGLS = 3-10 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 28

TRT#: 1

SEX: Male

DAY ON TEST: 162

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E028

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Brain  
\* Intestine Small, Duodenum  
\* Kidney  
\* Lymph Node, Mandibular  
\* Prostate  
\* Stomach, Forestomach  
\* Thyroid Gland

\* Adrenal Medulla  
\* Epididymis  
\* Intestine Small, Ileum  
\* Liver  
\* Mammary Gland  
\* Salivary Glands  
\* Stomach, Glandular  
\* Urinary Bladder

\* Bone  
\* Esophagus  
\* Intestine Small, Jejunum  
\* Lung  
\* Nose  
\* Seminal Vesicle  
\* Testes

\* Bone Marrow  
\* Heart  
\* Islets, Pancreatic  
\* Lymph Node, Bronchial  
\* Pancreas  
\* Spleen  
\* Thymus

MISSING

\* Larynx  
\* Pituitary Gland

\* Lymph Node, Mediastinal

\* Lymph Node, Mesenteric

\* Parathyroid Gland

AUTO PRECLUDES DIAG.

\* Gallbladder

\* Intestine Large, Cecum

\* Intestine Large, Colon

\* Intestine Large, Rectum

INSUFFICIENT TISSUE

\* Trachea

OBSERVATIONS

Lymph Node  
[ Pigmentation TGLS = 1-9 ]  
\* Preputial Gland

Inguinal

Pigmentation

Minimal

Ectasia

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 29

TRT#: 1

SEX: Male

DAY ON TEST: 162

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E029

**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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland	* Stomach, Forestomach
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**AUTO PRECLUDES DIAG.**

\* Gallbladder

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 30

TRT#: 1

SEX: Male

DAY ON TEST: 739

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E030

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	* Mammary Gland
* Nose	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Fracture Healed	
[ Fracture Healed TGLS = 2-10 ]			
* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Islets, Pancreatic		Hyperplasia	Mild
Lymph Node	Pancreatic	Inflammation	Granulomatous, Marked
[ Inflammation TGLS = 5-4,1-9 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Marked
		Inflammation	Granulomatous, Mild
[ Hyperplasia TGLS = 5-4 ]			
[ Inflammation TGLS = 5-4,1-9 ]			
* Pancreas		Inflammation	Chronic, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland	Bilateral	Ectasia	Minimal
[ Ectasia TGLS = 6-6 ]			
* Spleen		Hyperplasia	Lymphoid, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 31

TRT#: 1

SEX: Male

DAY ON TEST: 392

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E031

**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	* Islets, Pancreatic	* Kidney
* Larynx	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

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

\* Gallbladder

**OBSERVATIONS**

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3-3,9 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 6-4 ]			
* Preputial Gland	Bilateral	Ectasia	Mild
* Spleen		Hematopoietic Cell Proliferation	Marked
[ Hematopoietic Cell Proliferation TGLS = 2-3 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 737

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E032

**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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Trachea	* Urinary Bladder		

**MISSING**

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

* Adrenal Cortex	Adenoma	
* Bone	Hyperostosis	Mild
* Preputial Gland	Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1,2-6 ]		
* Thyroid Gland	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 33

TRT#: 1

SEX: Male

DAY ON TEST: 739

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E033

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal
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OBSERVATIONS

* Adrenal Cortex	Capsule	Adenoma	
* Liver		Hepatocellular Adenoma	
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 34

TRT#: 1

SEX: Male

DAY ON TEST: 689

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E034

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	* Islets, Pancreatic
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Kidney	Pelvis	Inflammation	Suppurative, Mild
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 5-3,9 ]			
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Minimal
[ Hyperplasia TGLS = 1-10 ]			
* Preputial Gland	Bilateral	Ectasia	Marked
[ Ectasia TGLS = 2,3-6 ]			
* Urinary Bladder		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 4-5 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 35

TRT#: 1

SEX: Male

DAY ON TEST: 737

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E035

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 1-9 ]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 1-9 ]			
* Preputial Gland		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 2-6 ]			
* Stomach, Forestomach		Squamous Cell Papilloma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 36

TRT#: 1

SEX: Male

DAY ON TEST: 470

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E036

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lung	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Gallbladder	* Lymph Node, Mandibular	* Parathyroid Gland
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INSUFFICIENT TISSUE

* Lymph Node, Bronchial
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OBSERVATIONS

* Liver	Hepatocyte	Hepatocellular Carcinoma Necrosis	Mild
[ Hepatocellular Carcinoma TGLS = 3-3 ]			
[ Necrosis TGLS = 4-9 ]			
* Preputial Gland	Bilateral	Ectasia	Marked
[ Ectasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 738

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E037

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyms	* Trachea	

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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OBSERVATIONS

* Epididymis	Inflammation	Chronic, Mild
Mesentery	Lipoma	
[ Lipoma TGLS = 3-9 ]		
* Preputial Gland	Ectasia	Mild
	Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-6 ]		
* Seminal Vesicle	Dilatation	Moderate
[ Dilatation TGLS = 4-10 ]		
* Thyroid Gland	Follicular Cel	Adenoma
* Urinary Bladder	Transit Epithe	Metaplasia
		Squamous, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL"RED" NOT A SIGN.LESION, NONE ON RECUTS

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 38

TRT#: 1

SEX: Male

DAY ON TEST: 738

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E038

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

INSUFFICIENT TISSUE

\* Lymph Node, Bronchial

OBSERVATIONS

* Epididymis		Inflammation	Chronic, Mild
* Lung		Alveolar/Bronchiolar Carcinoma	
	[ Alveolar/Bronchiolar Carcinoma TGLS = 5-4 ]		
* Nose	Respirat Epith	Degeneration	Minimal
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 1,2-6 ]		
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 39

TRT#: 3

SEX: Male

DAY ON TEST: 593

DOSE: 0 MG/M3 LUNGTX

DISP: Natural Death

HISTO: MZ031/E039

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	* Islets, Pancreatic
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Kidney		Atrophy	Marked
	Pelvis	Dilatation	Moderate
	Bilateral	Inflammation	Suppurative, Marked
* Liver	Hepatocyte	Necrosis	Minimal
Lymph Node	Renal	Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mesenteric		Congestion	Marked
		Inflammation	Suppurative, Moderate
		Ectasia	Marked
* Preputial Gland			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Urinary Bladder	Transit Epithe	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 40	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 458
	<b>DOSE:</b> 0 MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZ031/E040

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**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	* Islets, Pancreatic
* Kidney	* Larynx	* 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	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

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**OBSERVATIONS**

* Liver	Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-9 ]		
* Preputial Gland	Ectasia	Marked
[ Ectasia TGLS = 1-6 ]		

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 41

TRT#: 1

SEX: Male

DAY ON TEST: 713

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E041

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mediastinal	* Thymus
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OBSERVATIONS

* Intestine Small, Ileum	Inflammation	Suppurative, Marked
	Ulcer	Marked
* Liver	Basophilic Focus	Minimal
* Lung	Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 3-9 ]		
* Preputial Gland	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]		
* Spleen	Hematopoietic Cell Proliferation	Mild
	Hyperplasia	Lymphoid, Marked
[ Hematopoietic Cell Proliferation TGLS = 2-3 ]		
[ Hyperplasia TGLS = 2-3 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 42

TRT#: 1

SEX: Male

DAY ON TEST: 732

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E042

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Liver		Hepatocellular Adenoma Hepatocellular Carcinoma Necrosis	Marked
	Hepatocyte		
	[ Hepatocellular Adenoma TGLS = 5-3 ]		
	[ Hepatocellular Carcinoma TGLS = 2-9 ]		
	[ Necrosis TGLS = 3,4-3,9 ]		
* Lung		Alveolar/Bronchiolar Adenoma Alveolar/Bronchiolar Carcinoma	
	Note: ADENOMA SOLID PATTERN,< 1MM IN LEFT{?}LOBE		
	[ Alveolar/Bronchiolar Carcinoma TGLS = 7,8-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
	[ Hyperplasia TGLS = 6-4 ]		
* Nose	Respirat Epith Respirat Epith	Inflammation Metaplasia	Suppurative, Minimal Squamous, Minimal
* Preputial Gland	Bilateral	Ectasia	Mild
	[ Ectasia TGLS = 1-6 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 341

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E043

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex  
\* Brain  
\* Islets, Pancreatic  
\* Lymph Node, Mandibular  
\* Pancreas  
\* Spleen  
\* Thymus

\* Adrenal Medulla  
\* Epididymis  
\* Larynx  
\* Lymph Node, Mesenteric  
\* Parathyroid Gland  
\* Stomach, Forestomach  
\* Thyroid Gland

\* Bone  
\* Esophagus  
\* Liver  
\* Mammary Gland  
\* Pituitary Gland  
\* Stomach, Glandular  
\* Trachea

\* Bone Marrow  
\* Heart  
\* Lung  
\* Nose  
\* Salivary Glands  
\* Testes

**MISSING**

\* Gallbladder  
\* Urinary Bladder

\* Lymph Node, Bronchial

\* Lymph Node, Mediastinal

\* Prostate

**AUTO PRECLUDES DIAG.**

\* Intestine Large, Cecum  
\* Intestine Small, Ileum

\* Intestine Large, Colon  
\* Intestine Small, Jejunum

\* Intestine Large, Rectum  
\* Seminal Vesicle

\* Intestine Small, Duodenum

**OBSERVATIONS**

\* Kidney  
[ Dilatation TGLS = 7,8-3,9 ]  
[ Fibrosis TGLS = 5-9 ]  
\* Preputial Gland  
[ Ectasia TGLS = 1-6 ]

Bilateral, Pelvis  
Cortex

Dilatation  
Fibrosis

Minimal  
Minimal

Bilateral

Ectasia

Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 44

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 199

**DOSE:** 0 MG/M3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-E044

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Kidney

\* Lung

\* Nose

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**MISSING**

\* Lymph Node, Mediastinal

---

**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 45

TRT#: 1

SEX: Male

DAY ON TEST: 603

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E045

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	* Islets, Pancreatic
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	

OBSERVATIONS

* Kidney	Pelvis	Dilatation	Mild
	Bilateral, Papilla	Inflammation	Suppurative, Mild
[ Dilatation TGLS = 3-3 ]			
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 4-9 ]			
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 6-11 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 6-11 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
Skin		Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 7-10 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Urinary Bladder		Inflammation	Chronic Active, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 46

TRT#: 1

SEX: Male

DAY ON TEST: 737

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E046

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex  
\* Brain  
\* Intestine Large, Cecum  
\* Intestine Small, Ileum  
\* Larynx  
\* Lymph Node, Mandibular  
\* Pancreas  
\* Salivary Glands  
\* Stomach, Glandular  
\* Trachea

\* Adrenal Medulla  
\* Esophagus  
\* Intestine Large, Colon  
\* Intestine Small, Jejunum  
\* Liver  
\* Lymph Node, Mesenteric  
\* Parathyroid Gland  
\* Seminal Vesicle  
\* Testes  
\* Urinary Bladder

\* Bone  
\* Gallbladder  
\* Intestine Large, Rectum  
\* Islets, Pancreatic  
\* Lung  
\* Mammary Gland  
\* Pituitary Gland  
\* Spleen  
\* Thymus

\* Bone Marrow  
\* Heart  
\* Intestine Small, Duodenum  
\* Kidney  
\* Lymph Node, Bronchial  
\* Nose  
\* Prostate  
\* Stomach, Forestomach  
\* Thyroid Gland

**MISSING**

\* Epididymis  
\* Lymph Node, Mediastinal

**OBSERVATIONS**

\* Preputial Gland

Inflammation

Suppurative, Marked

[ Inflammation TGLS = 1-6 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 47

TRT#: 1

SEX: Male

DAY ON TEST: 737

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E047

**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	* Islets, Pancreatic	* Kidney
* Larynx	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

**MISSING**

* Lymph Node, Bronchial	* Parathyroid Gland
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**INSUFFICIENT TISSUE**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Adrenal Cortex	Capsule	Adenoma	
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-9 ]			
* Preputial Gland	Bilateral	Ectasia	Mild
		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 48

TRT#: 1

SEX: Male

DAY ON TEST: 694

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E048

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	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Kidney		Lymphoma Malignant	
* Liver		Lymphoma Malignant	
	Hepatocyte	Necrosis	Moderate
	[ Lymphoma Malignant TGLS = 5-3 ]		
	[ Necrosis TGLS = 5-3 ]		
* Lung		Lymphoma Malignant	
Lymph Node	Axillary	Lymphoma Malignant	
	Iliac	Lymphoma Malignant	
	Inguinal	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-5,1-9,9-10,6-11,8-4,7-12 ]		
	[ Lymphoma Malignant TGLS = 4-5,1-9,9-10,6-11,8-4,7-12 ]		
	[ Lymphoma Malignant TGLS = 4-5,1-9,9-10,6-11,8-4,7-12 ]		
	[ Lymphoma Malignant TGLS = 4-5,1-9,9-10,6-11,8-4,7-12 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-5,1-9,9-10,6-11,8-4,7-12 ]		
* Lymph Node, Mandibular		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-5,1-9,9-10,6-11,8-4,7-12 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:44

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

**Lab:** LITRI

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**ANIMAL ID:** 48

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 694

**DOSE:** 0 MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/E048

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Lymphoma Malignant TGLS = 4-5,1-9,9-10,6-11,8-4,7-12 ]

\* Preputial Gland

Inflammation

Chronic Active, Moderate

[ Inflammation TGLS = 2-6 ]

\* Spleen

Lymphoma Malignant

[ Lymphoma Malignant TGLS = 3-3 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 49	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 199
	<b>DOSE:</b> 0 MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZO31-E049

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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<b>NORMAL</b>			
* Kidney	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Nose			

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**OBSERVATIONS**

* Liver	Hepatocellular Adenoma
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[ Hepatocellular Adenoma TGLS = 1-9 ]

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 50

TRT#: 1

SEX: Male

DAY ON TEST: 629

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E050

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	* Islets, Pancreatic	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Epididymis		Sarcoma	
[ Sarcoma TGLS = 3,4-9,10 ]			
* Kidney	Pelvis	Dilatation	Mild
[ Dilatation TGLS = 6-3 ]			
Lymph Node	Iliac	Hyperplasia	Lymphoid, Mild
	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 5-12,2-11 ]			
[ Hyperplasia TGLS = 5-12,2-11 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 5-12,2-11 ]			
* Preputial Gland		Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 1-6 ]			
Skin		Inflammation	Chronic Active, Mild
[ Inflammation TGLS = 8-13 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland	Follicular Cel	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 52

TRT#: 1

SEX: Male

DAY ON TEST: 643

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E052

**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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

**MISSING**

* Intestine Large, Rectum	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Thymus
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**OBSERVATIONS**

* Nose	Respirat Epith Respirat Epith	Inflammation Metaplasia Ectasia	Suppurative, Minimal Squamous, Minimal Moderate
* Preputial Gland [ Ectasia TGLS = 2-6 ]			
Skeletal Muscle		Inflammation	Suppurative, Marked
Skin [ Inflammation TGLS = 1,3-9,10 ]		Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 53	<b>TRT#:</b> 1 <b>DOSE:</b> 0 MG/M3	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 590 <b>HISTO:</b> MZ031/E053
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

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**MISSING**

\* Lymph Node, Mediastinal

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**AUTO PRECLUDES DIAG.**

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

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**INSUFFICIENT TISSUE**

* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Thymus	
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**OBSERVATIONS**

* Bone Marrow		Lymphoma Malignant	
* Heart		Lymphoma Malignant	
* Kidney		Lymphoma Malignant	
* Liver		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 2-3 ]			
* Lung		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 3-4 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
* Spleen		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 1-3 ]			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 54

TRT#: 1

SEX: Male

DAY ON TEST: 559

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E054

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Islets, Pancreatic	* Kidney	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Gallbladder	* Parathyroid 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		

INSUFFICIENT TISSUE

\* Larynx

OBSERVATIONS

* Liver	Hepatocyte	Hemangiosarcoma Necrosis	Marked
	[ Hemangiosarcoma TGLS = 4,5-3,9 ]		
	[ Necrosis TGLS = 6-3,9 ]		
* Lymph Node, Bronchial		Congestion	Marked
* Preputial Gland	Bilateral	Ectasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:44

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

**Lab:** LITRI

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**ANIMAL ID:** 55

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 199

**DOSE:** 0 MG/M3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-E055

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Kidney

\* Lung

\* Lymph Node, Bronchial

\* Lymph Node, Mediastinal

\* Nose

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 56	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 458
	<b>DOSE:</b> 0 MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZ031/E056

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**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	* Islets, Pancreatic
* 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
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

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**OBSERVATIONS**

* Preputial Gland	Ectasia	Mild
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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 57

TRT#: 1

SEX: Male

DAY ON TEST: 629

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E057

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	
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**OBSERVATIONS**

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 2-10 ]			
* Preputial Gland		Ectasia	Mild
		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-6,9 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
Tooth		Dysplasia	Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 58

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 199

**DOSE:** 0 MG/M3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-E058

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Kidney

\* Lung

\* Lymph Node, Bronchial

\* Lymph Node, Mediastinal

\* Nose

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 59

TRT#: 3

SEX: Male

DAY ON TEST: 458

DOSE: 0 MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/E059

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Liver [ Hepatocellular Carcinoma TGLS = 3-3,9 ]	Hepatocellular Carcinoma	
* Lung	Hepatocellular Carcinoma	Metastatic (Uncertain Primary Site)
* Preputial Gland [ Ectasia TGLS = 1-6 ]	Ectasia	Mild
* Salivary Glands	Infiltration Cellular	Lymphocyte, Mild
* Spleen [ Hyperplasia TGLS = 2-3 ]	Hyperplasia	Lymphoid, Mild
* Urinary Bladder	Calculus Micro Observation Only	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 60

TRT#: 1

SEX: Male

DAY ON TEST: 737

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E060

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	* Islets, Pancreatic	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Esophagus	* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Kidney	Cortex	Cyst	
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 1,2-10,11 ]			
* Lymph Node, Mesenteric		Congestion	Mild
		Hyperplasia	Lymphoid, Moderate
[ Congestion TGLS = 6-5 ]			
* Preputial Gland		Ectasia	Marked
		Inflammation	Chronic, Moderate
[ Ectasia TGLS = 3-6 ]			
[ Inflammation TGLS = 3-6 ]			
* Spleen		Hemangiosarcoma	
[ Hemangiosarcoma TGLS = 4-9 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 61

TRT#: 1

SEX: Male

DAY ON TEST: 738

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E061

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Medulla
- \* Epididymis
- \* Intestine Large, Cecum
- \* Intestine Small, Ileum
- \* Larynx
- \* Lymph Node, Mandibular
- \* Nose
- \* Prostate
- \* Stomach, Forestomach
- \* Thyroid Gland

- \* Bone
- \* Esophagus
- \* Intestine Large, Colon
- \* Intestine Small, Jejunum
- \* Liver
- \* Lymph Node, Mediastinal
- \* Pancreas
- \* Salivary Glands
- \* Stomach, Glandular
- \* Trachea

- \* Bone Marrow
- \* Gallbladder
- \* Intestine Large, Rectum
- \* Islets, Pancreatic
- \* Lung
- \* Lymph Node, Mesenteric
- \* Parathyroid Gland
- \* Seminal Vesicle
- \* Testes
- \* Urinary Bladder

- \* Brain
- \* Heart
- \* Intestine Small, Duodenum
- \* Kidney
- \* Lymph Node, Bronchial
- \* Mammary Gland
- \* Pituitary Gland
- \* Spleen
- \* Thymus

OBSERVATIONS

- \* Adrenal Cortex
- \* Preputial Gland

Adenoma  
 Ectasia  
 Inflammation

Minimal  
 Chronic Active, Moderate

[ Inflammation TGLS = 1-6 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 62

TRT#: 1

SEX: Male

DAY ON TEST: 653

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E062

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, Ileum	* Intestine Small, Jejunum	* Larynx	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea	* Urinary Bladder	

MISSING

* Intestine Large, Cecum	* Islets, Pancreatic	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Pancreas	* Thymus		

OBSERVATIONS

* Kidney		Mineralization	Minimal
* Lymph Node, Mesenteric		Congestion	Moderate
* Preputial Gland	Bilateral	Ectasia	Mild
[ Ectasia TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
Urethra		Calculus Micro Observation Only	
[ Calculus Micro Observation Only TGLS = 2-9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 63

TRT#: 1

SEX: Male

DAY ON TEST: 601

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E063

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Epididymis  
\* Islets, Pancreatic  
\* Lymph Node, Mandibular  
\* Pancreas  
\* Salivary Glands  
\* Thyroid Gland

\* Adrenal Medulla  
\* Esophagus  
\* Larynx  
\* Lymph Node, Mediastinal  
\* Parathyroid Gland  
\* Seminal Vesicle  
\* Trachea

\* Bone  
\* Gallbladder  
\* Lung  
\* Mammary Gland  
\* Pituitary Gland  
\* Testes

\* Brain  
\* Heart  
\* Lymph Node, Bronchial  
\* Nose  
\* Prostate  
\* Thymus

AUTO PRECLUDES DIAG.

\* Intestine Large, Cecum  
\* Intestine Small, Ileum

\* Intestine Large, Colon  
\* Intestine Small, Jejunum

\* Intestine Large, Rectum  
\* Stomach, Forestomach

\* Intestine Small, Duodenum  
\* Stomach, Glandular

OBSERVATIONS

\* Bone Marrow  
\* Kidney  
[ Inflammation TGLS = 3-3,9 ]

Myeloid Cell

Hyperplasia  
Inflammation

Moderate  
Chronic Active, Moderate

\* Liver  
Lymph Node  
[ Hyperplasia TGLS = 4-10,5-11 ]  
[ Hyperplasia TGLS = 4-10,5-11 ]

Iliac  
Renal

Hyperplasia  
Hyperplasia  
Hyperplasia

Macrophage, Mild  
Lymphoid, Moderate  
Lymphoid, Moderate

\* Lymph Node, Mesenteric  
[ Hyperplasia TGLS = 4-10,5-11 ]

Hyperplasia

Lymphoid, Moderate

\* Preputial Gland  
[ Inflammation TGLS = 1-6 ]

Ectasia  
Inflammation

Moderate  
Suppurative, Marked

\* Spleen  
[ Hematopoietic Cell Proliferation TGLS = 2-3 ]

Hematopoietic Cell Proliferation

Marked

\* Urinary Bladder  
[ Inflammation TGLS = 7-5 ]

Inflammation

Chronic, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 64	<b>TRT#:</b> 1 <b>DOSE:</b> 0 MG/M3	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 739 <b>HISTO:</b> MZ031/E064
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

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**OBSERVATIONS**

* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Preputial Gland		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 2-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
Tissue NOS		Abscess	Marked
[ Abscess TGLS = 1-9 ]			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 65

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 4

**DOSE:** 0 MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/E065

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex  
\* Brain  
\* Kidney  
\* Lymph Node, Bronchial  
\* Salivary Glands  
\* Stomach, Glandular

\* Adrenal Medulla  
\* Epididymis  
\* Larynx  
\* Mammary Gland  
\* Seminal Vesicle  
\* Testes

\* Bone  
\* Esophagus  
\* Liver  
\* Pituitary Gland  
\* Spleen  
\* Thymus

\* Bone Marrow  
\* Heart  
\* Lung  
\* Preputial Gland  
\* Stomach, Forestomach  
\* Trachea

**MISSING**

\* Islets, Pancreatic  
\* Pancreas

\* Lymph Node, Mandibular  
\* Parathyroid Gland

\* Lymph Node, Mediastinal  
\* Prostate

\* Lymph Node, Mesenteric  
\* Thyroid Gland

**AUTO PRECLUDES DIAG.**

\* Gallbladder  
\* Intestine Small, Duodenum  
\* Urinary Bladder

\* Intestine Large, Cecum  
\* Intestine Small, Ileum

\* Intestine Large, Colon  
\* Intestine Small, Jejunum

\* Intestine Large, Rectum  
\* Nose

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 66

TRT#: 1

SEX: Male

DAY ON TEST: 739

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E066

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	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Spindle Cell	Hyperplasia	Marked
* Islets, Pancreatic		Hyperplasia	Mild
* Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 3-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic Active, Mild
[ Ectasia TGLS = 1-6 ]			
[ Inflammation TGLS = 2-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 67

TRT#: 1

SEX: Male

DAY ON TEST: 739

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E067

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 | * Islets, Pancreatic      | * Kidney                    | * Larynx                 |
| * Lung                     | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Mammary Gland          |
| * Nose                     | * Pancreas                | * Parathyroid Gland         | * Pituitary Gland        |
| * Prostate                 | * Salivary Glands         | * Seminal Vesicle           | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Testes                    | * Thymus                 |
| * Trachea                  | * Urinary Bladder         |                             |                          |

MISSING

- \* Lymph Node, Mesenteric

INSUFFICIENT TISSUE

- \* Lymph Node, Bronchial

OBSERVATIONS

- |                                 |            |                 |              |
|---------------------------------|------------|-----------------|--------------|
| * Adrenal Cortex                |            | Hyperplasia     | Minimal      |
| * Bone                          |            | Fracture Healed |              |
| [ Fracture Healed TGLS = 3-10 ] |            |                 |              |
| * Liver                         | Hepatocyte | Cytomegaly      | Minimal      |
| * Preputial Gland               | Bilateral  | Ectasia         | Marked       |
| [ Ectasia TGLS = 1,2-6 ]        |            |                 |              |
| * Thyroid Gland                 |            | Hyperplasia     | Cystic, Mild |
| Tooth                           |            | Dysplasia       | Moderate     |
| Urethra                         |            | Concretion      | Moderate     |
| [ Concretion TGLS = 4-9 ]       |            |                 |              |

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 68

TRT#: 1

SEX: Male

DAY ON TEST: 713

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E068

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	* Islets, Pancreatic	* Larynx	* Liver
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Intestine Small, Jejunum

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney	Pelvis	Dilatation	Mild
[ Dilatation TGLS = 4-3 ]			
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 1-9 ]			
* Lymph Node, Mesenteric		Inflammation	Suppurative, Moderate
* Preputial Gland		Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 2-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 3-10 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 69

TRT#: 3

SEX: Male

DAY ON TEST: 458

DOSE: 0 MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/E069

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

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

Lymph Node	Inguinal	Hyperplasia	Lymphoid, Minimal
	Renal	Hyperplasia	Lymphoid, Minimal
[ Hyperplasia TGLS = 5-3,3-10 ]			
[ Hyperplasia TGLS = 5-3,3-10 ]			
Penis		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-9 ]			
* Preputial Gland		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-6,9 ]			
* Spleen		Hyperplasia	Lymphoid, Minimal
[ Hyperplasia TGLS = 4-3 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 70

TRT#: 1

SEX: Male

DAY ON TEST: 643

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E070

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

Lymph Node [ Hyperplasia TGLS = 2-9 ]	Iliac	Hyperplasia	Lymphoid, Moderate
* Preputial Gland [ Inflammation TGLS = 1-6 ]		Inflammation	Suppurative, Marked
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 161

TRT#: 5

SEX: Male

DAY ON TEST: 738

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F161

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	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyms	* Trachea	

OBSERVATIONS

* Kidney [ Cyst TGLS = 5-12 ]	Cortex	Cyst	
* Liver [ Angiectasis TGLS = 7-11 ] [ Hepatocellular Carcinoma TGLS = 4-9 ]		Angiectasis Hepatocellular Carcinoma	Mild
* Lung	Alveolus Alveolus	Pigmentation Proteinosis	Minimal Minimal
* Lymph Node, Bronchial		Pigmentation	Mild
* Lymph Node, Mesenteric [ Congestion TGLS = 2-5 ]		Congestion	Mild
* Thyroid Gland		Hyperplasia	Cystic, Moderate
* Urinary Bladder [ Calculus Micro Observation Only TGLS = 3-5 ]		Calculus Micro Observation Only	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 162

TRT#: 5

SEX: Male

DAY ON TEST: 626

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F162

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

AUTO PRECLUDES DIAG.

\* Gallbladder

OBSERVATIONS

* Liver		Basophilic Focus Hepatocellular Adenoma	
	[ Basophilic Focus TGLS = 3-3 ] [ Hepatocellular Adenoma TGLS = 2-9 ]		
* Lung	Alveolus	Inflammation Pigmentation Thrombosis Pigmentation	Chronic, Minimal Minimal Mild Minimal
* Lymph Node, Bronchial			
	[ Pigmentation TGLS = 5-4 ]		
* Preputial Gland		Ectasia Inflammation	Mild Chronic Active, Marked
	[ Inflammation TGLS = 1-6 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 163

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F163

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

Harderian Gland [ Adenoma TGLS = 2-9 ]		Adenoma	
* Liver [ Infarct TGLS = 1-10 ]		Infarct	Moderate
* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation Pigmentation	Minimal Minimal Minimal
* Lymph Node, Bronchial [ Pigmentation TGLS = 3-4 ]			
* Lymph Node, Mesenteric		Congestion	Mild
* Preputial Gland		Ectasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 164

TRT#: 5

SEX: Male

DAY ON TEST: 739

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F164

**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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

\* Intestine Large, Rectum

**OBSERVATIONS**

* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation Pigmentation	Minimal Mild Mild
* Lymph Node, Bronchial [ Pigmentation TGLS = 2-4 ]			
* Preputial Gland [ Ectasia TGLS = 1-6 ]	Bilateral	Ectasia	Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 165

TRT#: 5

SEX: Male

DAY ON TEST: 739

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/165

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar/Bronchiolar Adenoma	Alveolar Epith	Hyperplasia	Minimal
		Alveolus	Inflammation	Chronic, Minimal
	[ Alveolar/Bronchiolar Adenoma TGLS = 1-4,9 ]		Pigmentation	Minimal
* Lymph Node, Bronchial			Hyperplasia	Lymphoid, Minimal
			Pigmentation	Mild
	[ Pigmentation TGLS = 2-4 ]			
* Lymph Node, Mesenteric			Congestion	Moderate
* Preputial Gland			Ectasia	Mild
* Stomach, Forestomach			Hyperkeratosis	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 166

TRT#: 5

SEX: Male

DAY ON TEST: 738

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F166

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 3-9 ]	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
Mesentery		Hemorrhage	Moderate
	Vein	Inflammation	Chronic, Moderate
		Thrombosis	
		[ Hemorrhage TGLS = 2-11 ]	
		[ Inflammation TGLS = 2-11 ]	
		[ Thrombosis TGLS = 2-11 ]	
* Preputial Gland	Bilateral	Ectasia	Moderate
		[ Ectasia TGLS = 1-6 ]	
* Stomach, Forestomach		Squamous Cell Papilloma	
		[ Squamous Cell Papilloma TGLS = 4-10 ]	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 166

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 738

**DOSE:** 1.25MGM3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031/F166

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 168

TRT#: 5

SEX: Male

DAY ON TEST: 512

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F168

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Prostate
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AUTO PRECLUDES DIAG.

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

* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Kidney		Inflammation	Chronic, Marked
[ Inflammation TGLS = 7-3 ]			
* Liver		Hepatocellular Carcinoma	
		Thrombosis	
[ Hepatocellular Carcinoma TGLS = 2-3,10 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
[ Alveolar/Bronchiolar Adenoma TGLS = 3-9 ]			
Lymph Node	Iliac	Pigmentation	Minimal
	Inguinal	Pigmentation	Minimal
[ Pigmentation TGLS = 4-12,6-11 ]			
[ Pigmentation TGLS = 4-12,6-11 ]			
* Lymph Node, Bronchial		Atrophy	Marked
		Pigmentation	Minimal
[ Pigmentation TGLS = 4-12,6-11 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 168	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 512
	<b>DOSE:</b> 1.25MGM3	<b>DISP:</b> Natural Death	<b>HISTO:</b> MZ031/F168

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Preputial Gland	Bilateral	Ectasia	Marked
* Spleen		Hematopoietic Cell Proliferation	Marked
	[ Hematopoietic Cell Proliferation TGLS = 8-3 ]		
* Urinary Bladder		Inflammation	Chronic Active, Marked
	[ Inflammation TGLS = 1-5 ]		

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**PRIMARY CAUSE OF DEATH** -

Animal Note: MED LN NOT ON 3 RE CUTS. AUTOLYSIS COMPLIATES GROSS

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 169

TRT#: 5

SEX: Male

DAY ON TEST: 612

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F169

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular	* Pituitary Gland	* Thymus
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OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 3-9,10 ]		
* Lung	Alveolus	Inflammation	Chronic, Mild
		Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Lymph Node, Mediastinal		Pigmentation	Minimal
* Pancreas		Inflammation	Chronic Active, Mild
* Preputial Gland		Concretion	Minimal
	[ Concretion TGLS = 2-6 ]		
Skin		Inflammation	Suppurative, Mild
	[ Inflammation TGLS = 1-11 ]		
* Spleen		Hyperplasia	Lymphoid, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 171

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 1.25MGM3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/F171

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular Tissue NOS	* Testes	* Thymus	* Thyroid Gland
	* Trachea	* Urinary Bladder	

MISSING

* Gallbladder	* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-3A,9 ]			
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Preputial Gland		Ectasia	Minimal
[ Ectasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 172

TRT#: 7

SEX: Male

DAY ON TEST: 676

DOSE: 1.25MGM3 LUNGTX

DISP: Natural Death

HISTO: MZ031/F172

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Trachea	* Urinary Bladder		

MISSING

* Gallbladder	* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Thymus
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AUTO PRECLUDES DIAG.

\* Intestine Small, Ileum

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 6-3 ]			
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Mild
* Lymph Node, Mesenteric		Congestion	Moderate
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 3,4-6 ]			
Skin	Subcut Tiss	Edema	Moderate
[ Edema TGLS = 2-9 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 173

TRT#: 5

SEX: Male

DAY ON TEST: 694

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F173

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

AUTO PRECLUDES DIAG.

\* Gallbladder

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
* Lung	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Lymph Node, Mediastinal		Pigmentation	Minimal
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 174

TRT#: 5

SEX: Male

DAY ON TEST: 341

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F174

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea

MISSING

* Intestine Large, Rectum	* Lymph Node, Bronchial
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AUTO PRECLUDES DIAG.

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

* Kidney	Pelvis	Dilatation Inflammation	Mild Chronic Active, Minimal
[ Dilatation TGLS = 3-3 ]			
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 4-3 ]			
* Lung	Alveolus	Pigmentation Thrombosis	Minimal Minimal
Lymph Node	Iliac Inguinal Iliac	Hyperplasia Hyperplasia Pigmentation	Lymphoid, Mild Lymphoid, Moderate Minimal
[ Hyperplasia TGLS = 7-12,1-10 ]			
[ Hyperplasia TGLS = 7-12,1-10 ]			
[ Pigmentation TGLS = 7-12 ]			
* Lymph Node, Mediastinal		Pigmentation	Minimal
[ Pigmentation TGLS = 7-12 ]			
* Preputial Gland		Ectasia Inflammation	Moderate Suppurative, Moderate
[ Ectasia TGLS = 2-6 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 174

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 341

**DOSE:** 1.25MGM3

**DISP:** Natural Death

**HISTO:** MZ031/F174

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Inflammation TGLS = 2-6 ]

\* Prostate

Inflammation

Suppurative, Moderate

Skin

Inflammation

Suppurative, Marked

[ Inflammation TGLS = 5-11 ]

\* Urinary Bladder

Inflammation

Suppurative, Moderate

[ Inflammation TGLS = 9-5,9 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 175

TRT#: 5

SEX: Male

DAY ON TEST: 669

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F175

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	* Islets, Pancreatic	* Larynx
* Liver	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney	Pelvis	Dilatation	Minimal
[ Dilatation TGLS = 11-3 ]			
* Lung	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolar Epith	Hyperplasia	Mild
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Mild
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
	Inguinal	Pigmentation	Minimal
[ Hyperplasia TGLS = 7-10 ]			
[ Pigmentation TGLS = 7-10 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 7-10 ]			
Penis		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2,3-13 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Chronic, Moderate
[ Ectasia TGLS = 4-6 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 175

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 669

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F175

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Inflammation TGLS = 4-6 ]			
* Seminal Vesicle		Dilatation	Marked
[ Dilatation TGLS = 8-14 ]			
Skin	Prepuce	Inflammation	Suppurative, Marked
		Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 5,6-11,12,1-9 ]			
[ Inflammation TGLS = 5,6-11,12,1-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thyroid Gland		Hyperplasia	Cystic, Minimal
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 176

TRT#: 5

SEX: Male

DAY ON TEST: 738

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F176

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

MISSING

* Islets, Pancreatic	* Lymph Node, Mediastinal
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
* Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic Active, Marked
[ Ectasia TGLS = 3-6 ]			
[ Inflammation TGLS = 2-6 ]			
Skin	Prepuce	Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
Tooth		Dysplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 177

TRT#: 5

SEX: Male

DAY ON TEST: 739

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F177

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, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Intestine Small, Ileum	* Lymph Node, Mediastinal	* Parathyroid Gland	* Prostate
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Liver		Eosinophilic Focus	
[ Eosinophilic Focus TGLS = 3-3 ]			
* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation Pigmentation	Minimal Mild Mild
* Lymph Node, Bronchial			
[ Pigmentation TGLS = 6-4 ]			
* Lymph Node, Mesenteric		Congestion	Mild
* Preputial Gland	Bilateral	Ectasia Inflammation	Moderate Chronic, Mild
[ Ectasia TGLS = 1-6 ]			
[ Inflammation TGLS = 2-6 ]			
* Thyroid Gland	Bilateral, Follicular Cel	Adenoma Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 178

TRT#: 5

SEX: Male

DAY ON TEST: 738

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F178

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	[ Inflammation TGLS = 2-4 ]		
* Lymph Node, Bronchial		Pigmentation	Mild
	[ Pigmentation TGLS = 3-4 ]		
* Preputial Gland		Ectasia	Mild
	Bilateral	Inflammation	Chronic Active, Moderate
	[ Inflammation TGLS = 1-6 ]		
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 179

TRT#: 5

SEX: Male

DAY ON TEST: 739

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F179

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Lung		Alveolar/Bronchiolar Carcinoma Inflammation Pigmentation	Multiple Chronic, Mild Minimal
	Alveolus		
	[ Alveolar/Bronchiolar Carcinoma TGLS = 3,4-4,9 ]		
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Nose	Olfactory Epi Respirat Epith Respirat Epith	Degeneration Inflammation Metaplasia	Mild Suppurative, Minimal Squamous, Mild
* Preputial Gland		Ectasia Inflammation	Moderate Chronic, Marked
	[ Ectasia TGLS = 1-6 ]		
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 180	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 105
	<b>DOSE:</b> 1.25MGM3	<b>DISP:</b> Natural Death	<b>HISTO:</b> MZ031/F180

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea			

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**MISSING**

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland
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**AUTO PRECLUDES DIAG.**

* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Urinary Bladder

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**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

---

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 181

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 1.25MGM3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/F181

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Cortex
- \* Brain
- \* Heart
- \* Intestine Small, Duodenum
- \* Kidney
- \* Mammary Gland
- \* Pituitary Gland
- \* Spleen
- \* Thymus

- \* Adrenal Medulla
- \* Epididymis
- \* Intestine Large, Cecum
- \* Intestine Small, Ileum
- \* Larynx
- \* Nose
- \* Prostate
- \* Stomach, Forestomach
- \* Thyroid Gland

- \* Bone
- \* Esophagus
- \* Intestine Large, Colon
- \* Intestine Small, Jejunum
- \* Lymph Node, Mandibular
- \* Pancreas
- \* Salivary Glands
- \* Stomach, Glandular
- \* Trachea

- \* Bone Marrow
- \* Gallbladder
- \* Intestine Large, Rectum
- \* Islets, Pancreatic
- \* Lymph Node, Mesenteric
- \* Parathyroid Gland
- \* Seminal Vesicle
- \* Testes
- \* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

- \* Liver
- \* Lung
- \* Lymph Node, Bronchial
- \* Preputial Gland

[ Ectasia TGLS = 1,2-6 ]

Alveolar Epith  
Alveolus

Basophilic Focus  
Hyperplasia  
Pigmentation  
Pigmentation  
Ectasia

Minimal  
Minimal  
Minimal  
Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 182

TRT#: 7

SEX: Male

DAY ON TEST: 557

DOSE: 1.25MGM3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/F182

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal
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OBSERVATIONS

* Kidney [ Dilatation TGLS = 5-3 ]	Pelvis	Dilatation	Minimal
* Lung	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
Penis [ Concretion TGLS = 2-9 ]		Concretion	Marked
* Preputial Gland [ Ectasia TGLS = 1,3-6 ]	Bilateral	Ectasia	Moderate
* Seminal Vesicle [ Dilatation TGLS = 6-6 ]		Dilatation	Moderate
Skin		Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 183

TRT#: 5

SEX: Male

DAY ON TEST: 739

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F183

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

**MISSING**

\* Parathyroid Gland

**OBSERVATIONS**

* Liver [ Hyperplasia TGLS = 3-3 ]	Hepatocyte	Hyperplasia	Mild
* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation	Minimal Minimal
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland [ Ectasia TGLS = 1-6 ]	Bilateral	Ectasia	Moderate
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 184

TRT#: 5

SEX: Male

DAY ON TEST: 738

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F184

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex	Bilateral Spindle Cell	Hyperplasia Hyperplasia	Mild Mild
* Lung	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Pigmentation	Minimal
* Lymph Node, Mesenteric		Congestion	Mild
* Nose	Olfactory Epi Respirat Epith Olfactory Epi Respirat Epith Respirat Epith	Degeneration Degeneration Inflammation Inflammation Metaplasia	Minimal Minimal Suppurative, Moderate Suppurative, Moderate Squamous, Moderate
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
Tooth		Dysplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 185

TRT#: 7

SEX: Male

DAY ON TEST: 501

DOSE: 1.25MGM3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/F185

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Mammary Gland	* Pancreas
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Parathyroid Gland	
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Epididymis		Lymphoma Malignant	
* Kidney		Lymphoma Malignant	
* Liver	Hepatocyte	Necrosis	Mild
[ Lymphoma Malignant TGLS = 8,9-3 ]			
* Lung	Alveolus	Lymphoma Malignant	
		Pigmentation	Minimal
Lymph Node	Iliac	Lymphoma Malignant	
	Inguinal	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 7-11,1-9,5-5,10-4,2-6,6-10 ]			
[ Lymphoma Malignant TGLS = 7-11,1-9,5-5,10-4,2-6,6-10 ]			
[ Lymphoma Malignant TGLS = 7-11,1-9,5-5,10-4,2-6,6-10 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Minimal
[ Lymphoma Malignant TGLS = 7-11,1-9,5-5,10-4,2-6,6-10 ]			
* Lymph Node, Mandibular		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 7-11,1-9,5-5,10-4,2-6,6-10 ]			
* Lymph Node, Mesenteric		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 7-11,1-9,5-5,10-4,2-6,6-10 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:44  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 185

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 501

**DOSE:** 1.25MGM3 LUNGTX

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F185

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Nose		Lymphoma Malignant	
* Preputial Gland	Bilateral	Ectasia	Marked
[ Ectasia TGLS = 3-6 ]			
* Prostate		Lymphoma Malignant	
* Spleen		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 4-3 ]			
* Thymus		Lymphoma Malignant	

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 186

TRT#: 5

SEX: Male

DAY ON TEST: 738

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F186

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

**MISSING**

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Parathyroid Gland
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**OBSERVATIONS**

* Bone		Hemorrhage	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
[ Pigmentation TGLS = 2-4 ]			
* Pituitary Gland	Pars Distalis	Cyst	
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 187

TRT#: 5

SEX: Male

DAY ON TEST: 616

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F187

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 6-9 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
		Inflammation	Chronic, Moderate
	Alveolus	Pigmentation	Mild
[ Alveolar/Bronchiolar Carcinoma TGLS = 8,9-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
[ Hyperplasia TGLS = 10-4 ]			
* Lymph Node, Mesenteric		Congestion	Moderate
[ Congestion TGLS = 3-5 ]			
* Nose	Olfactory Epi	Degeneration	Mild
	Olfactory Epi	Inflammation	Suppurative, Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal
	Vomeronas Org	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Preputial Gland	Bilateral	Ectasia	Marked
[ Ectasia TGLS = 2-6 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:44

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

**Lab:** LITRI

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**ANIMAL ID:** 187

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 616

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F187

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 188

TRT#: 5

SEX: Male

DAY ON TEST: 739

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F188

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Mammary Gland	* Nose
* Pancreas	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

**MISSING**

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

* Liver		Mixed Cell Focus	
[ Mixed Cell Focus TGLS = 2-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Mesenteric		Congestion	Mild
* Preputial Gland	Bilateral	Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 189

TRT#: 5

SEX: Male

DAY ON TEST: 675

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F189

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Colon	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Intestine Large, Cecum	* Intestine Large, Rectum	* Lymph Node, Bronchial
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AUTO PRECLUDES DIAG.

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

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3-9 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Mild
[ Alveolar/Bronchiolar Carcinoma TGLS = 4-4 ]			
Penis		Concretion	Marked
[ Concretion TGLS = 2-10 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Chronic Active, Mild
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-11,12 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 190

TRT#: 5

SEX: Male

DAY ON TEST: 24

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F190

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex  
\* Brain  
\* Heart  
\* Kidney  
\* Mammary Gland  
\* Prostate  
\* Stomach, Forestomach  
\* Thyroid Gland

\* Adrenal Medulla  
\* Epididymis  
\* Intestine Large, Cecum  
\* Larynx  
\* Pancreas  
\* Salivary Glands  
\* Stomach, Glandular  
\* Trachea

\* Bone  
\* Esophagus  
\* Intestine Large, Colon  
\* Liver  
\* Pituitary Gland  
\* Seminal Vesicle  
\* Testes  
\* Urinary Bladder

\* Bone Marrow  
\* Gallbladder  
\* Islets, Pancreatic  
\* Lung  
\* Preputial Gland  
\* Spleen  
\* Thymus

**MISSING**

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

\* Intestine Small, Duodenum  
\* Lymph Node, Mandibular

\* Intestine Small, Ileum  
\* Lymph Node, Mediastinal

\* Intestine Small, Jejunum  
\* Lymph Node, Mesenteric

**OBSERVATIONS**

\* Nose                      Respirat Epith                      Metaplasia                      Squamous, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06  
Test Type: CHRONIC  
Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 10/23/2014  
Time Report Requested: 00:25:44  
First Dose M/F: NA / NA  
Lab: LITRI

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<b>ANIMAL ID:</b> 191	<b>TRT#:</b> 5 <b>DOSE:</b> 1.25MGM3	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 135 <b>HISTO:</b> MZ031/F191
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Heart	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

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**MISSING**

* Islets, Pancreatic	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland		

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**AUTO PRECLUDES DIAG.**

* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Stomach, Forestomach
* Stomach, Glandular			

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**INSUFFICIENT TISSUE**

\* Thymus

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**OBSERVATIONS**

* Brain	Pons	Demyelination	Mild
* Lung	Alveolus	Pigmentation	Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 192

TRT#: 5

SEX: Male

DAY ON TEST: 643

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F192

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Kidney [ Dilatation TGLS = 4-3 ]	Pelvis	Dilatation	Mild
* Lung [ Alveolar/Bronchiolar Carcinoma TGLS = 7-9 ]	Alveolar Epith Alveolus	Alveolar/Bronchiolar Carcinoma Hyperplasia Pigmentation	Minimal Minimal
Lymph Node [ Pigmentation TGLS = 6-4,5-10 ]	Renal	Pigmentation	Minimal
* Lymph Node, Bronchial [ Pigmentation TGLS = 6-4,5-10 ]		Pigmentation	Minimal
* Preputial Gland		Ectasia	Mild
* Seminal Vesicle [ Dilatation TGLS = 3-12 ]		Dilatation	Marked
Skin [ Inflammation TGLS = 1-11 ]		Inflammation	Suppurative, Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 193

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 1.25MG/3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/F193

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Lung	Alveolus	Pigmentation	Minimal
* Preputial Gland		Ectasia	Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:44

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

**Lab:** LITRI

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**ANIMAL ID:** 194

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 717

**DOSE:** 1.25MGM3 LUNGTX

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F194

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Skin

Inflammation

Suppurative, Marked

[ Inflammation TGLS = 2-12 ]

\* Testes

Atrophy

Moderate

Congestion

Mild

[ Congestion TGLS = 5-6 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:44

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 195

TRT#: 5

SEX: Male

DAY ON TEST: 738

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F195

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	* Islets, Pancreatic	* Larynx	* Liver
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Epididymis		Granuloma Sperm	Marked
[ Granuloma Sperm TGLS = 4-10 ]			
* Kidney		Nephropathy	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Minimal
[ Inflammation TGLS = 6-9 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 7-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Nose	Respirat Epith	Inflammation	Suppurative, Marked
	Respirat Epith	Metaplasia	Squamous, Mild
* Preputial Gland		Ectasia	Mild
		Inflammation	Suppurative, Marked
[ Ectasia TGLS = 2-6 ]			
[ Inflammation TGLS = 1-6 ]			
* Spleen		Hyperplasia	Lymphoid, Mild
Tooth		Odontoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 195

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 738

**DOSE:** 1.25MGM3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031/F195

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 196

TRT#: 5

SEX: Male

DAY ON TEST: 644

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F196

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mesenteric	* Preputial Gland
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OBSERVATIONS

* Heart	Atrium	Thrombosis	
* Liver		Hepatocellular Carcinoma	
		Thrombosis	
	[ Hepatocellular Carcinoma TGLS = 4-3,9,10 ]		
* Lung	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
	Note: TGL 5 = NCL		
* Lymph Node, Bronchial		Pigmentation	Mild
* Nose		Inflammation	Suppurative, Minimal
* Preputial GI			
	Note: TGL - 1 = NCL		
* Thymus		Atrophy	Marked
	[ Atrophy TGLS = 2-2 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 197

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 199

**DOSE:** 1.25MGM3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-F197

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Kidney

\* Lymph Node, Bronchial

\* Nose

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

\* Lung

Inflammation

Chronic, Minimal

Alveolus

Pigmentation

Minimal

\* Preputial Gland

Duct

Ectasia

Mild

[ Ectasia TGLS = 1-6,9 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 199

TRT#: 5

SEX: Male

DAY ON TEST: 157

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F199

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Heart	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

**MISSING**

* Intestine Large, Cecum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mediastinal
* Parathyroid Gland			

**AUTO PRECLUDES DIAG.**

\* Gallbladder

**INSUFFICIENT TISSUE**

\* Bone Marrow

**OBSERVATIONS**

* Lung	Alveolus	Pigmentation	Minimal
* Nose		Inflammation	Suppurative, Mild
* Stomach, Glandular		Inflammation	Suppurative, Mild
[ Inflammation TGLS = 1-9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 200

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 593

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F200

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**OBSERVATIONS**

* Lung	Alveolus	Pigmentation	Mild
Lymph Node [ Hyperplasia TGLS = 1-10 ]	Inguinal	Hyperplasia	Lymphoid, Mild
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland [ Ectasia TGLS = 2-6 ]	Bilateral	Ectasia	Marked
Skin [ Inflammation TGLS = 3-9 ]		Inflammation	Suppurative, Marked

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 201

TRT#: 5

SEX: Male

DAY ON TEST: 683

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F201

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	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea		

MISSING

\* Lymph Node, Mediastinal      \* Thymus

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 4-3,9 ]			
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 5-10 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
[ Pigmentation TGLS = 6-4 ]			
Mesentery			
Note: TGL"MESENTERY" IS LIVER N.B.			
* Preputial Gland		Inflammation	Chronic Active, Mild
[ Inflammation TGLS = 3-6 ]			
* Skin		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-11 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Urinary Bladder		Inflammation	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 201

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 683

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F201

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 202

TRT#: 5

SEX: Male

DAY ON TEST: 604

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F202

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Pancreas	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Mediastinal	* Pituitary Gland
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OBSERVATIONS

* Kidney		Inflammation	Chronic, Mild
* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation Pigmentation	Minimal Minimal Minimal
* Lymph Node, Bronchial [ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Mesenteric		Congestion	Mild
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Parathyroid Gland		Hyperplasia	Cystic, Mild
* Preputial Gland	Bilateral	Ectasia	Mild
* Spleen [ Hemangiosarcoma TGLS = 1,2-3,9,10 ]		Hemangiosarcoma	
* Urinary Bladder [ Hemorrhage TGLS = 3-11 ] [ Inflammation TGLS = 3-11 ]		Hemorrhage Inflammation	Moderate Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 203

TRT#: 5

SEX: Male

DAY ON TEST: 610

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F203

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Rectum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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AUTO PRECLUDES DIAG.

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

INSUFFICIENT TISSUE

\* Thymus

OBSERVATIONS

* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland		Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
Urethra		Calculus Micro Observation Only	
[ Calculus Micro Observation Only TGLS = 2-9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 204

TRT#: 5

SEX: Male

DAY ON TEST: 739

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F204

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 2-9 ]		
* Lymph Node, Bronchial		Pigmentation	Mild
	[ Pigmentation TGLS = 3-4 ]		
* Parathyroid Gland		Cyst	
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 1-6 ]		
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 205

TRT#: 5

SEX: Male

DAY ON TEST: 738

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F205

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland
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INSUFFICIENT TISSUE

\* Thymus

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 3-9 ]			
* Lung	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
		Proteinosis	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 206

TRT#: 5

SEX: Male

DAY ON TEST: 290

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F206

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Prostate
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyimus	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland
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INSUFFICIENT TISSUE

\* Pituitary Gland

OBSERVATIONS

* Lung		Hemorrhage	Minimal
	Alveolus	Pigmentation	Minimal
	[ Hemorrhage TGLS = 9-4 ]		
* Lymph Node, Bronchial		Pigmentation	Minimal
Penis		Inflammation	Moderate
* Preputial Gland		Ectasia	Minimal
		Hemorrhage	Moderate
		Inflammation	Suppurative, Mild
	[ Hemorrhage TGLS = 4-6 ]		
	[ Inflammation TGLS = 4-6 ]		
* Seminal Vesicle		Dilatation	Mild
	[ Dilatation TGLS = 7-6 ]		
Skin	Subcut Tiss	Edema	Moderate
	Subcut Tiss	Hemorrhage	Moderate
	[ Edema TGLS = 3-9 ]		
	[ Hemorrhage TGLS = 1,2-10 ]		
* Urinary Bladder		Crystals	Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 206

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 290

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F206

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Crystals TGLS = 6-5 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 207

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 199

**DOSE:** 1.25MGM3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-F207

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Kidney

\* Lymph Node, Mediastinal

\* Nose

---

**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

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**OBSERVATIONS**

\* Lung

Alveolus

Inflammation

Pigmentation

Chronic, Minimal

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 209

TRT#: 7

SEX: Male

DAY ON TEST: 567

DOSE: 1.25MGM3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/F209

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Prostate
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Lung	Alveolus	Pigmentation	Minimal
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
	Iliac	Pigmentation	Minimal
[ Hyperplasia TGLS = 4-11,6-12 ]			
* Lymph Node, Bronchial		Pigmentation	Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 4-11,6-12 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
Penis		Concretion	Moderate
[ Concretion TGLS = 1-6,9 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Suppurative, Mild
[ Ectasia TGLS = 2-6 ]			
[ Inflammation TGLS = 2-6 ]			
* Seminal Vesicle		Dilatation	Moderate
[ Dilatation TGLS = 5-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 3-10 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 209

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 567

**DOSE:** 1.25MGM3 LUNGTX

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F209

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Spleen

Hematopoietic Cell Proliferation

Mild

\* Thyroid Gland

Hyperplasia

Cystic, Mild

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 210

TRT#: 5

SEX: Male

DAY ON TEST: 726

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031-F210

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Liver	Hepatocyte	Hepatocellular Carcinoma Necrosis Thrombosis	Multiple Mild
[ Hepatocellular Carcinoma TGLS = 5,6-3,9,10 ]			
* Lung	Alveolar Epith Alveolus	Hepatocellular Carcinoma Hyperplasia Pigmentation	Metastatic (Liver) Minimal Minimal
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Moderate
[ Pigmentation TGLS = 9-4 ]			
* Lymph Node, Mesenteric		Hematopoietic Cell Proliferation	Marked
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1,2-6 ]			
Skin	Subcut Tiss	Fibrosis	Moderate
[ Fibrosis TGLS = 10-11 ]			
* Spleen		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 3-3 ]			
* Testes		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 210

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031-F210

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Atrophy TGLS = 4-6 ]

Tooth

Dysplasia

Marked

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 211

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 199

**DOSE:** 1.25MGM3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-F211

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Kidney

\* Nose

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**MISSING**

\* Lymph Node, Mediastinal

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**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

---

**OBSERVATIONS**

\* Lung

Alveolus

Pigmentation

Minimal

\* Preputial Gland

Duct

Ectasia

Moderate

[ Ectasia TGLS = 1-6 ]

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 212

TRT#: 5

SEX: Male

DAY ON TEST: 226

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F212

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	* Islets, Pancreatic
* Kidney	* Liver	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Parathyroid Gland
* Prostate			

OBSERVATIONS

* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 2-6 ]			
Penis		Mineralization	Moderate
[ Mineralization TGLS = 1-9 ]			
* Preputial Gland		Inflammation	Suppurative, Mild
[ Inflammation TGLS = 3-6 ]			
Skin		Alopecia	Mild
		Necrosis	Marked
[ Alopecia TGLS = 5-10 ]			
[ Necrosis TGLS = 8-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 213

TRT#: 7

SEX: Male

DAY ON TEST: 539

DOSE: 1.25MGM3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/F213

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	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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OBSERVATIONS

* Bone		Fracture Healed	
[ Fracture Healed TGLS = 1-12 ]			
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Liver		Infarct	Marked
[ Infarct TGLS = 6-3,9 ]			
* Lung	Alveolus	Pigmentation	Minimal
Lymph Node	Iliac	Hyperplasia	Lymphoid, Mild
	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-11,5-10 ]			
[ Hyperplasia TGLS = 2-11,5-10 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 3-6 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal
Tissue NOS			
Note: TNOS IS BONE N.B.			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 214

TRT#: 5

SEX: Male

DAY ON TEST: 493

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F214

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Kidney		Fibrosis	Minimal
		Mineralization	Minimal
			[ Fibrosis TGLS = 4-3 ]
			[ Mineralization TGLS = 4-3 ]
* Lung	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
	Lymph Node	Hyperplasia	Lymphoid, Mild
	Inguinal	Hyperplasia	Lymphoid, Mild
			[ Hyperplasia TGLS = 5-11,1,2-9,10 ]
			[ Hyperplasia TGLS = 5-11,1,2-9,10 ]
* Lymph Node, Bronchial		Pigmentation	Mild
* Lymph Node, Mandibular		Hyperplasia	Histiocytic, Moderate
			[ Hyperplasia TGLS = 5-11,1,2-9,10 ]
* Nose	Respirat Epith	Degeneration	Mild
	Respirat Epith	Inflammation	Suppurative, Minimal
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Chronic, Minimal
* Testes		Atrophy	Moderate
			[ Atrophy TGLS = 3-6 ]

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 214

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 493

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F214

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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:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 215

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 199

**DOSE:** 1.25MGM3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-F215

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Nose

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung	Alveolus	Pigmentation	Minimal
Lymph Node	Renal	Pigmentation	Minimal
[ Pigmentation TGLS = 1-10 ]			
* Lymph Node, Bronchial		Pigmentation	Minimal
* Preputial Gland		Atrophy	Marked
	Duct	Ectasia	Marked
[ Atrophy TGLS = 2-6,9 ]			
[ Ectasia TGLS = 2-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 216

TRT#: 5

SEX: Male

DAY ON TEST: 445

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F216

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Islets, Pancreatic	* Kidney	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Intestine Large, Rectum	* Larynx	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Parathyroid Gland			

AUTO PRECLUDES DIAG.

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

* Brain	Pons	Demyelination	Mild
* Liver		Hepatocellular Carcinoma	Multiple
		Infarct	Marked
[ Hepatocellular Carcinoma TGLS = 3,4-9,10 ]			
[ Infarct TGLS = 3-9 ]			
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 2-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 217

TRT#: 5

SEX: Male

DAY ON TEST: 612

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F217

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Kidney [ Dilatation TGLS = 6-3 ]	Pelvis	Dilatation	Moderate
* Lung Lymph Node [ Hyperplasia TGLS = 8-9 ]	Alveolus Inguinal	Pigmentation Hyperplasia	Minimal Lymphoid, Mild
* Lymph Node, Bronchial		Pigmentation	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland [ Ectasia TGLS = 2,7-6 ]	Bilateral	Ectasia	Moderate
Skin [ Inflammation TGLS = 1-10 ]		Inflammation	Chronic, Minimal
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 218

TRT#: 5

SEX: Male

DAY ON TEST: 480

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F218

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Colon	* Islets, Pancreatic	* Larynx
* Liver	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Testes	* Thymus	* Thyroid Gland
* Trachea			

MISSING

* Lymph Node, Mediastinal	* Prostate
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AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Kidney [ Inflammation TGLS = 6-3 ]		Inflammation	Chronic Active, Mild
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial [ Pigmentation TGLS = 4-5 ]		Pigmentation	Minimal
* Lymph Node, Mesenteric [ Pigmentation TGLS = 4-5 ]		Pigmentation	Minimal
* Preputial Gland [ Inflammation TGLS = 1-6 ]		Inflammation	Chronic Active, Marked
* Seminal Vesicle [ Dilatation TGLS = 3-6 ]		Dilatation	Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Stomach, Glandular [ Inflammation TGLS = 7-5 ]		Inflammation	Chronic, Marked
* Urinary Bladder [ Papilloma TGLS = 2-5 ]	Transit Epithe	Inflammation Papilloma	Chronic, Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 218	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 480
	<b>DOSE:</b> 1.25MGM3	<b>DISP:</b> Natural Death	<b>HISTO:</b> MZ031/F218

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 219

TRT#: 5

SEX: Male

DAY ON TEST: 738

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F219

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation	Minimal Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Preputial Gland		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
Tooth		Dysplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 220

TRT#: 5

SEX: Male

DAY ON TEST: 739

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F220

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea			

OBSERVATIONS

* Liver		Hepatocellular Adenoma Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-9 ]			
* Lung		Alveolar/Bronchiolar Adenoma Alveolar/Bronchiolar Carcinoma	
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
[ Alveolar/Bronchiolar Carcinoma TGLS = 3-11 ]			
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Marked Minimal
* Lymph Node, Mesenteric		Congestion	Mild
* Nose	Respirat Epith Respirat Epith	Inflammation Metaplasia	Suppurative, Minimal Squamous, Minimal
* Preputial Gland		Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
* Thyroid Gland	Bilateral, Follicular Cel	Adenoma	
Urethra		Calculus Micro Observation Only	
* Urinary Bladder		Calculus Micro Observation Only	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 221

TRT#: 5

SEX: Male

DAY ON TEST: 298

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F221

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

MISSING

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

* Kidney [ Inflammation TGLS = 7-3 ]		Inflammation	Suppurative, Moderate
* Lung Lymph Node [ Inflammation TGLS = 5-11 ]	Alveolus Iliac	Pigmentation Inflammation	Minimal Suppurative, Moderate
* Lymph Node, Bronchial Penis		Pigmentation Hemorrhage Necrosis	Minimal Marked Chronic, Moderate
* Preputial Gland		Ectasia	Mild
* Prostate		Inflammation	Suppurative, Mild
* Seminal Vesicle [ Dilatation TGLS = 4-6 ]		Dilatation	Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
Urethra		Calculus Micro Observation Only	
* Urinary Bladder [ Inflammation TGLS = 2,3-9 ]		Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 222

TRT#: 5

SEX: Male

DAY ON TEST: 739

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F222

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, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Trachea	* Urinary Bladder

MISSING

* Intestine Small, Ileum	* Lymph Node, Mediastinal	* Thymus
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OBSERVATIONS

* Adrenal Cortex	Spindle Cell	Hyperplasia	Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Parathyroid Gland		Hyperplasia	Cystic, Mild
* Preputial Gland	Bilateral	Ectasia	Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal
Urethra		Concretion	Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 223

TRT#: 5

SEX: Male

DAY ON TEST: 471

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F223

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Islets, Pancreatic	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea			

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Parathyroid Gland
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AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
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PRESENT BUT NOT EXAMINED

\* Testes

OBSERVATIONS

* Kidney [ Inflammation TGLS = 7-3 ]		Inflammation	Chronic Active, Moderate
* Lung	Alveolus	Pigmentation	Minimal
Lymph Node [ Hyperplasia TGLS = 8-10 ]	Inguinal	Hyperplasia	Lymphoid, Moderate
* Lymph Node, Bronchial [ Hyperplasia TGLS = 8-10 ]		Hyperplasia Pigmentation	Lymphoid, Minimal Minimal
* Preputial Gland [ Ectasia TGLS = 2-9 ] [ Inflammation TGLS = 1-9 ]	Bilateral	Ectasia Inflammation	Mild Chronic Active, Mild
* Prostate [ Hyperplasia TGLS = 6-6 ]	Epithelium	Hyperplasia Inflammation	Moderate Chronic Active, Mild

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 223

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 471

**DOSE:** 1.25MGM3

**DISP:** Natural Death

**HISTO:** MZ031/F223

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Inflammation TGLS = 6-6 ]		
* Seminal Vesicle	Dilatation	Mild
[ Dilatation TGLS = 5-6 ]		
* Spleen	Hematopoietic Cell Proliferation	Moderate
[ Hematopoietic Cell Proliferation TGLS = 3-3 ]		
* Urinary Bladder	Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 4-5 ]		

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 224

TRT#: 5

SEX: Male

DAY ON TEST: 739

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F224

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Intestine Large, Rectum	* Lymph Node, Bronchial	* Thymus
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OBSERVATIONS

* Esophagus		Squamous Cell Carcinoma	
[ Squamous Cell Carcinoma TGLS = 4-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Minimal
		Congestion	Mild
* Lymph Node, Mesenteric			
[ Congestion TGLS = 2-5 ]			
* Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 225

TRT#: 5

SEX: Male

DAY ON TEST: 649

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F225

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	* Islets, Pancreatic
* Kidney	* Larynx	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Liver		Lymphoma Malignant	
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Lymphoma Malignant	
	[ Alveolar/Bronchiolar Adenoma TGLS = 12-4 ]	Pigmentation	Minimal
Lymph Node	Axillary	Lymphoma Malignant	
	Iliac	Lymphoma Malignant	
	Pancreatic	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 6-11,13-9,7-10,5-12,11-4,1-6,4-5,10-2 ]		
	[ Lymphoma Malignant TGLS = 6-11,13-9,7-10,5-12,11-4,1-6,4-5,10-2 ]		
	[ Lymphoma Malignant TGLS = 6-11,13-9,7-10,5-12,11-4,1-6,4-5,10-2 ]		
	[ Lymphoma Malignant TGLS = 6-11,13-9,7-10,5-12,11-4,1-6,4-5,10-2 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Minimal
	[ Lymphoma Malignant TGLS = 6-11,13-9,7-10,5-12,11-4,1-6,4-5,10-2 ]		
* Lymph Node, Mandibular		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 6-11,13-9,7-10,5-12,11-4,1-6,4-5,10-2 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 6-11,13-9,7-10,5-12,11-4,1-6,4-5,10-2 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 225

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 649

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F225

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Lymphoma Malignant TGLS = 6-11,13-9,7-10,5-12,11-4,1-6,4-5,10-2 ]

\* Preputial Gland

Bilateral

Ectasia

Moderate

\* Salivary Glands

Lymphoma Malignant

\* Spleen

Lymphoma Malignant

[ Lymphoma Malignant TGLS = 3-3 ]

\* Thymus

Lymphoma Malignant

[ Lymphoma Malignant TGLS = 9-2 ]

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 226

TRT#: 5

SEX: Male

DAY ON TEST: 637

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F226

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	* Islets, Pancreatic	* Larynx
* Liver	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea		

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Kidney	Pelvis	Dilatation	Mild
		Inflammation	Chronic Active, Marked
			[ Dilatation TGLS = 8-3 ]
			[ Inflammation TGLS = 9-3 ]
* Lung	Alveolus	Pigmentation	Minimal
Lymph Node	Iliac	Hyperplasia	Lymphoid, Marked
	Renal	Hyperplasia	Lymphoid, Moderate
			[ Hyperplasia TGLS = 7-10,10-9 ]
			[ Hyperplasia TGLS = 7-10,10-9 ]
* Lymph Node, Bronchial		Pigmentation	Minimal
* Lymph Node, Mesenteric		Inflammation	Suppurative, Marked
			[ Inflammation TGLS = 5-5 ]
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Chronic Active, Marked
			[ Ectasia TGLS = 2-6 ]
			[ Inflammation TGLS = 1-6 ]
Skin		Inflammation	Chronic Active, Moderate
			[ Inflammation TGLS = 3-11 ]

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 226

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 637

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F226

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Spleen [ Hematopoietic Cell Proliferation TGLS = 4-3 ]	Hematopoietic Cell Proliferation	Moderate
* Thyroid Gland	Hyperplasia	Cystic, Minimal
* Urinary Bladder [ Inflammation TGLS = 6-5 ]	Inflammation	Chronic Active, Marked

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 227

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 1.25MGM3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/F227

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Brain  
\* Heart  
\* Intestine Small, Duodenum  
\* Kidney  
\* Mammary Gland  
\* Pituitary Gland  
\* Spleen  
\* Thyroid Gland

\* Adrenal Medulla  
\* Epididymis  
\* Intestine Large, Cecum  
\* Intestine Small, Ileum  
\* Larynx  
\* Nose  
\* Prostate  
\* Stomach, Forestomach  
\* Trachea

\* Bone  
\* Esophagus  
\* Intestine Large, Colon  
\* Intestine Small, Jejunum  
\* Lymph Node, Mandibular  
\* Pancreas  
\* Salivary Glands  
\* Stomach, Glandular  
\* Urinary Bladder

\* Bone Marrow  
\* Gallbladder  
\* Intestine Large, Rectum  
\* Islets, Pancreatic  
\* Lymph Node, Mesenteric  
\* Parathyroid Gland  
\* Seminal Vesicle  
\* Testes

MISSING

\* Lymph Node, Mediastinal

\* Thymus

OBSERVATIONS

\* Liver  
[ Hepatocellular Adenoma TGLS = 1-3,9 ]

Hepatocellular Adenoma

\* Lung Alveolus

Pigmentation

Mild

\* Lymph Node, Bronchial

Pigmentation

Mild

\* Preputial Gland  
[ Ectasia TGLS = 2-6 ]

Ectasia

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 228

TRT#: 5

SEX: Male

DAY ON TEST: 706

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F228

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Colon	* Intestine Large, Rectum	* Islets, Pancreatic
* Larynx	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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**AUTO PRECLUDES DIAG.**

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

* Kidney	Pelvis	Inflammation	Suppurative, Minimal
* Liver		Hepatocellular Carcinoma	Multiple
		Infarct	Marked
			[ Hepatocellular Carcinoma TGLS = 2,3-3,10,11 ]
			[ Infarct TGLS = 1-3,9 ]
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Edema	Mild
		Pigmentation	Mild
* Lymph Node, Mesenteric		Congestion	Moderate
* Preputial Gland	Bilateral	Ectasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 229

TRT#: 5

SEX: Male

DAY ON TEST: 737

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F229

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-9 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Minimal
[ Alveolar/Bronchiolar Carcinoma TGLS = 3-4,10 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Pigmentation TGLS = 4-4 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 230

TRT#: 5

SEX: Male

DAY ON TEST: 539

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F230

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	* Islets, Pancreatic	* Larynx
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Kidney	Pelvis	Inflammation	Chronic Active, Mild
* Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 7-3,11 ]		
* Lung	Alveolus	Pigmentation	Minimal
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
	Inguinal	Hyperplasia	Lymphoid, Moderate
	Renal	Hyperplasia	Lymphoid, Mild
	[ Hyperplasia TGLS = 5-10,2-6,6-9,1-12 ]		
	[ Hyperplasia TGLS = 5-10,2-6,6-9,1-12 ]		
	[ Hyperplasia TGLS = 5-10,2-6,6-9,1-12 ]		
* Lymph Node, Bronchial		Pigmentation	Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
	[ Hyperplasia TGLS = 5-10,2-6,6-9,1-12 ]		
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 3-6 ]	Inflammation	Chronic Active, Mild
Skin		Inflammation	Suppurative, Mild
	[ Inflammation TGLS = 8-13 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland		Inflammation	Chronic, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 230

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 539

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F230

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: VASCULITIS IS PRESENT IN THYROID

\* Urinary Bladder

Inflammation

Suppurative, Marked

[ Inflammation TGLS = 4-5 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 231

TRT#: 5

SEX: Male

DAY ON TEST: 717

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F231

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Liver		Hemangiosarcoma	Multiple
		Hepatocellular Carcinoma	
		Infarct	Marked
		[ Hemangiosarcoma TGLS = 6,8-3,9,11 ]	
		[ Hepatocellular Carcinoma TGLS = 7-10 ]	
* Lung	Alveolus	Pigmentation	Minimal
Penis		Concretion	Mild
		[ Concretion TGLS = 4-12 ]	
* Preputial Gland		Ectasia	Mild
		Inflammation	Chronic, Mild
		[ Inflammation TGLS = 5-6 ]	
Skin	Subcut Tiss	Hemangioma	
	Prepuce	Inflammation	Suppurative, Moderate
		Inflammation	Suppurative, Mild
		[ Hemangioma TGLS = 2-6 ]	
		[ Inflammation TGLS = 1-14,3-13 ]	
		[ Inflammation TGLS = 1-14,3-13 ]	
* Spleen		Hematopoietic Cell Proliferation	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 231

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 717

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F231

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thyroid Gland

Hyperplasia

Cystic, Mild

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 232

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 1.25MGM3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/F232

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Cortex
- \* Brain
- \* Heart
- \* Intestine Small, Duodenum
- \* Kidney
- \* Lymph Node, Mediastinal
- \* Pancreas
- \* Seminal Vesicle
- \* Testes
- \* Urinary Bladder

- \* Adrenal Medulla
- \* Epididymis
- \* Intestine Large, Cecum
- \* Intestine Small, Ileum
- \* Larynx
- \* Lymph Node, Mesenteric
- \* Pituitary Gland
- \* Spleen
- \* Thymus

- \* Bone
- \* Esophagus
- \* Intestine Large, Colon
- \* Intestine Small, Jejunum
- \* Liver
- \* Mammary Gland
- \* Prostate
- \* Stomach, Forestomach
- \* Thyroid Gland

- \* Bone Marrow
- \* Gallbladder
- \* Intestine Large, Rectum
- \* Islets, Pancreatic
- \* Lymph Node, Mandibular
- \* Nose
- \* Salivary Glands
- \* Stomach, Glandular
- \* Trachea

MISSING

- \* Parathyroid Gland

OBSERVATIONS

- \* Lung
- \* Lymph Node, Bronchial
- \* Preputial Gland

Alveolus

- Pigmentation
- Pigmentation
- Ectasia
- Inflammation

- Minimal
- Minimal
- Mild
- Suppurative, Marked

[ Ectasia TGLS = 1-6 ]

[ Inflammation TGLS = 2-6 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 233

TRT#: 5

SEX: Male

DAY ON TEST: 692

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F233

**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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
Penis	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Trachea	* Urinary Bladder		

**MISSING**

\* Lymph Node, Mediastinal

**INSUFFICIENT TISSUE**

\* Thymus

**OBSERVATIONS**

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Lung	Alveolus	Pigmentation	Minimal
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 5-11 ]			
* Lymph Node, Bronchial		Pigmentation	Minimal
[ Pigmentation TGLS = 6-4 ]			
* Preputial Gland		Inflammation	Chronic, Moderate
[ Inflammation TGLS = 4-6 ]			
Skin	Prepuce	Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-10 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 234

TRT#: 5

SEX: Male

DAY ON TEST: 679

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F234

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Mammary Gland	* Pancreas	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea		

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Parathyroid Gland	* Pituitary Gland		

AUTO PRECLUDES DIAG.

* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Nose
* Urinary Bladder			

OBSERVATIONS

* Lung		Alveolar/Bronchiolar Carcinoma Hyperplasia Inflammation Pigmentation	Macrophage, Marked Chronic, Mild Minimal
	Alveolus		
	[ Alveolar/Bronchiolar Carcinoma TGLS = 4-4 ]		
	[ Hyperplasia TGLS = 6-4 ]		
	[ Inflammation TGLS = 5-10 ]		
Penis		Concretion	Marked
	[ Concretion TGLS = 2-11 ]		
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 3-6 ]		
Skin		Hamartoma	
	[ Hamartoma TGLS = 1-9 ]		
* Thymus		Pigmentation	Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 234

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 679

**DOSE:** 1.25MGM3

**DISP:** Natural Death

**HISTO:** MZ031/F234

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 235

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 1.25MGM3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/F235

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

INSUFFICIENT TISSUE

\* Thymus

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 4-3,9 ]		
* Lung		Hepatocellular Carcinoma	Metastatic (Uncertain Primary Site)
	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Minimal
	Iliac	Hyperplasia	Lymphoid, Moderate
	[ Hyperplasia TGLS = 7-10 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Hyperplasia TGLS = 7-10 ]		
* Lymph Node, Mesenteric		Congestion	Moderate
		Hyperplasia	Lymphoid, Moderate
	[ Congestion TGLS = 6-5 ]		
	[ Hyperplasia TGLS = 7-10 ]		
* Nose	Olfactory Epi	Degeneration	Mild
	Respirat Epith	Degeneration	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 235	<b>TRT#:</b> 7	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 728
	<b>DOSE:</b> 1.25MGM3 LUNGTX	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> MZ031/F235

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Preputial Gland [ Inflammation TGLS = 2-6 ]		Inflammation	Suppurative, Marked
Skin [ Inflammation TGLS = 3-13 ] [ Necrosis TGLS = 1-12 ]	Prepuce	Inflammation Necrosis	Suppurative, Moderate Marked
* Spleen		Hyperplasia	Lymphoid, Mild

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 236

TRT#: 5

SEX: Male

DAY ON TEST: 738

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F236

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation	Minimal Minimal
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Minimal Mild
* Preputial Gland	Bilateral	Ectasia Inflammation	Mild Suppurative, Moderate
	[ Ectasia TGLS = 1-6 ] [ Inflammation TGLS = 2-6 ]		
* Testes		Cyst	
* Urinary Bladder		Calculus Micro Observation Only	
	[ Calculus Micro Observation Only TGLS = 3-5 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 237

TRT#: 5

SEX: Male

DAY ON TEST: 738

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F237

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Chronic, Mild
	[ Ectasia TGLS = 2-6 ]		
	[ Inflammation TGLS = 1-6 ]		
* Spleen		Angiectasis	Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 238

TRT#: 5

SEX: Male

DAY ON TEST: 726

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F238

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mediastinal	* Thymus
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OBSERVATIONS

* Liver		Basophilic Focus	Mild
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
	[ Alveolar/Bronchiolar Adenoma TGLS = 4-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Hyperplasia TGLS = 5-4 ]		
	[ Pigmentation TGLS = 5-4 ]		
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
	[ Hyperplasia TGLS = 5-4 ]		
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Suppurative, Mild
	[ Ectasia TGLS = 1-6 ]		
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 239

TRT#: 5

SEX: Male

DAY ON TEST: 508

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F239

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Testes
* Thymus	* Thyroid Gland	* Trachea	

MISSING

\* Lymph Node, Mediastinal

AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Preputial Gland	Bilateral	Ectasia	Mild
[ Ectasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 240

TRT#: 5

SEX: Male

DAY ON TEST: 442

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F240

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Epididymis  
\* Larynx  
\* Parathyroid Gland  
\* Thyroid Gland

\* Adrenal Medulla  
\* Esophagus  
\* Lymph Node, Mandibular  
\* Pituitary Gland  
\* Trachea

\* Bone  
\* Gallbladder  
\* Mammary Gland  
\* Salivary Glands

\* Brain  
\* Heart  
\* Nose  
\* Testes

MISSING

\* Islets, Pancreatic  
\* Prostate

\* Lymph Node, Mediastinal  
\* Thymus

\* Lymph Node, Mesenteric

\* Pancreas

AUTO PRECLUDES DIAG.

\* Intestine Large, Cecum  
\* Intestine Small, Ileum  
\* Stomach, Glandular

\* Intestine Large, Colon  
\* Intestine Small, Jejunum  
\* Urinary Bladder

\* Intestine Large, Rectum  
\* Seminal Vesicle

\* Intestine Small, Duodenum  
\* Stomach, Forestomach

OBSERVATIONS

\* Bone Marrow  
\* Kidney  
[ Inflammation TGLS = 3,4-3 ]

Myeloid Cell

Hyperplasia  
Inflammation

Moderate  
Chronic Active, Marked

\* Liver  
[ Hepatocellular Carcinoma TGLS = 5-3,9 ]

Hepatocellular Carcinoma  
Infarct

Marked

\* Lung  
Alveolus

Pigmentation

Minimal

\* Lymph Node, Bronchial

Pigmentation

Mild

\* Preputial Gland  
[ Ectasia TGLS = 1-6 ]

Ectasia

Moderate

\* Spleen

Hyperplasia

Lymphoid, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 321

TRT#: 9

SEX: Male

DAY ON TEST: 603

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G321

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	* Larynx	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Gallbladder [ Necrosis TGLS = 3-3 ]		Necrosis	Moderate
* Islets, Pancreatic		Adenoma	
		Hyperplasia	Mild
* Kidney	Renal Tubule	Mineralization	Minimal
* Liver	Hepatocyte	Hepatocellular Carcinoma	
		Necrosis	Marked
			[ Hepatocellular Carcinoma TGLS = 4-11 ]
			[ Necrosis TGLS = 5-3 ]
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Mild
Lymph Node	Pancreatic	Inflammation	Granulomatous, Marked
			[ Inflammation TGLS = 2-5,9 ]
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland		Ectasia	Moderate
		Inflammation	Suppurative, Moderate
			[ Ectasia TGLS = 1-6 ]
			[ Inflammation TGLS = 1-6 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 321

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 603

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G321

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 322

TRT#: 9

SEX: Male

DAY ON TEST: 516

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G322

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Heart	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea			

**MISSING**

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

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

**OBSERVATIONS**

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 4-3 ]			
* Lung	Alveolus	Inflammation	Chronic, Minimal
	Iliac	Pigmentation	Mild
	Iliac	Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 3-9 ]			
[ Pigmentation TGLS = 3-9 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 3-9 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 2-6 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Urinary Bladder		Inflammation	Chronic, Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 323

TRT#: 11

SEX: Male

DAY ON TEST: 539

DOSE: 2.5MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/G323

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	* Islets, Pancreatic	* Larynx
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Trachea	

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 8-3 ]			
* Liver		Inflammation	Suppurative, Mild
* Lung		Inflammation	Chronic, Moderate
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Moderate
Lymph Node	Iliac	Hyperplasia	Lymphoid, Marked
	Inguinal	Hyperplasia	Lymphoid, Marked
	Pancreatic	Hyperplasia	Lymphoid, Marked
	Renal	Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 11-4,5-5,1-12,9-9,7-10,3-6,6-11 ]			
[ Hyperplasia TGLS = 11-4,5-5,1-12,9-9,7-10,3-6,6-11 ]			
[ Hyperplasia TGLS = 11-4,5-5,1-12,9-9,7-10,3-6,6-11 ]			
[ Hyperplasia TGLS = 11-4,5-5,1-12,9-9,7-10,3-6,6-11 ]			
* Lymph Node, Bronchial		Inflammation	Chronic Active, Moderate
		Pigmentation	Minimal
[ Inflammation TGLS = 11-4,10-2 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 11-4,5-5,1-12,9-9,7-10,3-6,6-11 ]			
* Lymph Node, Mediastinal		Inflammation	Chronic, Moderate
[ Inflammation TGLS = 11-4,10-2 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 323	<b>TRT#:</b> 11	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 539
	<b>DOSE:</b> 2.5MG/M3 LUNGTX	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> MZ031/G323

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Lymph Node, Mesenteric [ Hyperplasia TGLS = 11-4,1-12,9-9,7-10,3-6,6-11,5-5 ]		Hyperplasia	Lymphoid, Marked
* Nose	Olfactory Epi Respirat Epith	Degeneration Degeneration	Mild Moderate
* Preputial Gland [ Ectasia TGLS = 2-6 ]		Ectasia Inflammation	Moderate Chronic Active, Mild
Skin [ Inflammation TGLS = 12-13 ]		Inflammation	Suppurative, Marked
* Spleen [ Hematopoietic Cell Proliferation TGLS = 4-3 ]		Hematopoietic Cell Proliferation	Marked
* Thymus		Inflammation	Granulomatous, Moderate
* Thyroid Gland		Inflammation	Suppurative, Minimal
* Urinary Bladder		Inflammation	Chronic Active, Moderate

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 324

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G324

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	Minimal
	Alveolus	Hyperplasia	Chronic, Minimal
		Inflammation	Mild
* Lymph Node, Bronchial		Pigmentation	Lymphoid, Mild
		Hyperplasia	Mild
		Pigmentation	
		[ Pigmentation TGLS = 2-4 ]	
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Preputial Gland		Ectasia	Moderate
		Inflammation	Suppurative, Moderate
		[ Ectasia TGLS = 1-6 ]	
		[ Inflammation TGLS = 1-6 ]	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 325

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G325

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* 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	* Islets, Pancreatic	* Larynx	* Liver
* Lymph Node, Mandibular	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Heart	Ventricle	Thrombosis	
* Kidney		Nephropathy	Minimal
* Liver			
Note: NO LESIONS CORRESPOND TO TGL			
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
[ Alveolar/Bronchiolar Carcinoma TGLS = 8-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Pigmentation TGLS = 9-4 ]			
* Lymph Node, Mesenteric		Congestion	Mild
[ Congestion TGLS = 3-5 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Moderate
	Respirat Epith	Metaplasia	Squamous, Mild
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Chronic, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 325

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 737

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031/G325

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Ectasia TGLS = 1,2-6 ]

\* Thyroid Gland

Hyperplasia

Cystic, Minimal

Tooth

Dysplasia

Marked

Urethra

Concretion

Marked

[ Concretion TGLS = 4-10 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 326

TRT#: 9

SEX: Male

DAY ON TEST: 739

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G326

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	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Mammary Gland	* Pancreas	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mesenteric	* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Moderate
* Bone			
Note: TGL"BONE" IS SKIN INFLAMMATION N.B.			
* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 5-9 ]			
* Lung		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-11,12 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Hyperplasia TGLS = 2-11,12 ]			
[ Pigmentation TGLS = 6-4 ]			
* Lymph Node, Mediastinal		Pigmentation	Mild
[ Pigmentation TGLS = 6-4 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Minimal
* Preputial Gland	Bilateral	Ectasia	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 326

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 739

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031/G326

**ORGAN AND ACCOUNTABLE SITE STATUS**

Organ	Accountable Site	Status
[ Ectasia TGLS = 3-6 ]		Inflammation
Chronic, Mild		
Skin	Subcut Tiss	Inflammation
		Inflammation
[ Inflammation TGLS = 1-10 ]		
[ Inflammation TGLS = 1-10 ]		
* Thyroid Gland		Hyperplasia
		Cystic, Mild
PRIMARY CAUSE OF DEATH	-	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 327

TRT#: 9

SEX: Male

DAY ON TEST: 696

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G327

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	Minimal
	Alveolus	Pigmentation	Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 9-12 ]		
	[ Pigmentation TGLS = 8-4 ]		
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
	[ Hyperplasia TGLS = 4-11 ]		
* Lymph Node, Bronchial		Pigmentation	Mild
	[ Pigmentation TGLS = 7-4 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic, Marked
	[ Ectasia TGLS = 3-6 ]		
Skin		Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 1,2-9,10 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
Urethra		Calculus Micro Observation Only	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 327

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 696

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G327

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Calculus Micro Observation Only TGLS = 5-13 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 328

TRT#: 9

SEX: Male

DAY ON TEST: 539

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G328

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 6-3,10 ]			
* Lung		Hepatocellular Carcinoma	Metastatic (Uncertain Primary Site)
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 5-9 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 5-9 ]			
* Lymph Node, Mesenteric		Congestion	Mild
[ Congestion TGLS = 3-5 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 7-11 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
Tissue NOS		Necrosis	Chronic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 328

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 539

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G328

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Necrosis TGLS = 2-12 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 329

TRT#: 9

SEX: Male

DAY ON TEST: 738

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G329

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* 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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder			

INSUFFICIENT TISSUE

\* Thymus

OBSERVATIONS

* Bone		Hyperostosis	Mild
* Lung		Alveolar/Bronchiolar Carcinoma	
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
Note: TGL 2 NOT FOUND ON 3 RECUTS & WET TISS. REVIEW [ Alveolar/Bronchiolar Carcinoma TGLS = 3-9 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Minimal
			[ Hyperplasia TGLS = 4-4 ]
* Lymph Node, Mesenteric		Congestion	Moderate
			[ Congestion TGLS = 1-5 ]
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Mild
* Preputial Gland		Ectasia	Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 330

TRT#: 9

SEX: Male

DAY ON TEST: 738

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G330

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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INSUFFICIENT TISSUE

\* Larynx

OBSERVATIONS

* Liver [ Hepatocellular Adenoma TGLS = 4-11,5-9 ]		Hepatocellular Adenoma	Multiple
* Lung	Alveolar Epith	Hyperplasia Inflammation Pigmentation	Minimal Chronic, Minimal Mild
* Lymph Node, Bronchial [ Pigmentation TGLS = 7-4 ]	Alveolus	Hyperplasia Pigmentation	Lymphoid, Mild Mild
* Preputial Gland	Bilateral	Ectasia	Minimal
* Thyroid Gland Tissue NOS [ Lipoma TGLS = 3-12 ]		Hyperplasia Lipoma	Cystic, Minimal
* Urinary Bladder [ Calculus Micro Observation Only TGLS = 2-5 ]		Calculus Micro Observation Only	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 331

TRT#: 9

SEX: Male

DAY ON TEST: 463

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G331

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Bone		Hyperostosis	Minimal
* Lung	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
[ Pigmentation TGLS = 4-4 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 333

TRT#: 9

SEX: Male

DAY ON TEST: 738

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G333

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder			

MISSING

\* Thymus

OBSERVATIONS

* Liver		Basophilic Focus Hepatocellular Adenoma	Minimal
[ Hepatocellular Adenoma TGLS = 4-2 ]			
* Lung	Alveolar Epith	Hyperplasia Inflammation Pigmentation	Minimal Chronic, Minimal Mild
[ Pigmentation TGLS = 6-4 ]	Alveolus		
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Moderate Mild
[ Pigmentation TGLS = 7-4 ]			
* Nose		Inflammation	Suppurative, Moderate
* Preputial Gland		Ectasia Inflammation	Moderate Chronic Active, Moderate
[ Ectasia TGLS = 2-6 ]			
[ Inflammation TGLS = 2-6 ]			
* Spleen		Hemangiosarcoma	
[ Hemangiosarcoma TGLS = 3-9 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 333

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 738

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031/G333

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Tooth

Odontoma

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 334

TRT#: 9

SEX: Male

DAY ON TEST: 648

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G334

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Mild
Lymph Node	Iliac	Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 6-10 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
[ Hyperplasia TGLS = 6-10 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
Penis		Concretion	Marked
[ Concretion TGLS = 3-9 ]			
* Preputial Gland		Ectasia	Moderate
		Inflammation	Suppurative, Marked
[ Ectasia TGLS = 1-6 ]			
[ Inflammation TGLS = 2-6 ]			
Skin		Inflammation	Suppurative, Marked
Note: TGL"CAVITIES" IS ACTUALLY "SKIN"			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 334

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 648

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G334

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Inflammation TGLS = 5-11 ]

\* Spleen

Hematopoietic Cell Proliferation

Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 335

TRT#: 9

SEX: Male

DAY ON TEST: 739

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G335

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver		Congestion	Mild
[ Congestion TGLS = 4-9 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Alveolar/Bronchiolar Carcinoma TGLS = 2-4,10 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
[ Hyperplasia TGLS = 3-4 ]			
[ Pigmentation TGLS = 3-4 ]			
* Lymph Node, Mesenteric		Congestion	Mild
* Preputial Gland		Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 336

TRT#: 9

SEX: Male

DAY ON TEST: 356

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G336

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea			

MISSING

* Lymph Node, Mediastinal	* Prostate
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OBSERVATIONS

* Kidney	Pelvis	Dilatation Inflammation	Mild Suppurative, Mild
[ Dilatation TGLS = 4,5-3 ]			
* Lung	Alveolus	Pigmentation	Minimal
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 3-11 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
Penis		Concretion	Marked
		Hemorrhage	Moderate
		Necrosis	Chronic, Marked
[ Concretion TGLS = 1-10 ]			
* Preputial Gland	Bilateral	Ectasia	Mild
* Seminal Vesicle		Dilatation	Marked
[ Dilatation TGLS = 2-6,9 ]			
* Urinary Bladder		Inflammation	Suppurative, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 337

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G337

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**INSUFFICIENT TISSUE**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Pigmentation TGLS = 2-4 ]		
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 1-6 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 338

TRT#: 9

SEX: Male

DAY ON TEST: 665

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G338

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

INSUFFICIENT TISSUE

\* Thymus

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	Multiple
[ Hepatocellular Carcinoma TGLS = 4,5,6,7,8-3,9,10,11,12,13 ]			
* Lung		Hepatocellular Carcinoma	Metastatic (Uncertain Primary Site)
	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Mild
[ Hepatocellular Carcinoma TGLS = 9-4 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
* Lymph Node, Mesenteric		Congestion	Marked
[ Congestion TGLS = 2-5 ]			
* Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic, Mild
[ Ectasia TGLS = 1-6 ]			
* Spleen		Hyperplasia	Lymphoid, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 339

TRT#: 11

SEX: Male

DAY ON TEST: 694

DOSE: 2.5MG/M3 LUNGTX

DISP: Natural Death

HISTO: MZ031/G339

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Thymus

AUTO PRECLUDES DIAG.

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

* Liver		Basophilic Focus	Minimal
* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation	Minimal Mild
* Lymph Node, Bronchial		Pigmentation	Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
Penis		Concretion	Minimal
[ Concretion TGLS = 1-9 ]			
* Preputial Gland	Bilateral Bilateral	Ectasia Inflammation	Mild Suppurative, Moderate
[ Ectasia TGLS = 2-6 ]			
[ Inflammation TGLS = 2-6 ]			
* Stomach, Glandular		Inflammation	Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 340

TRT#: 9

SEX: Male

DAY ON TEST: 738

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G340

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 5-3,9 ]			
* Lung	Alveolar Epith	Alveolar/Bronchiolar Carcinoma	Minimal
		Hyperplasia	Chronic, Mild
	Alveolus	Inflammation	Mild
[ Alveolar/Bronchiolar Carcinoma TGLS = 3-10 ]		Pigmentation	
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 4-4 ]			
* Preputial Gland		Ectasia	Marked
[ Ectasia TGLS = 1,2-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 342

TRT#: 9

SEX: Male

DAY ON TEST: 730

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G342

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	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	

MISSING

* Gallbladder	* Parathyroid Gland
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 6,7-3,9,10 ]			
* Liver		Thrombosis	
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Lymph Node, Mesenteric		Congestion	Minimal
[ Congestion TGLS = 3-5 ]			
* Preputial Gland		Atrophy	Minimal
		Ectasia	Marked
		Inflammation	Suppurative, Mild
[ Atrophy TGLS = 1-6 ]			
[ Ectasia TGLS = 2-6 ]			
* Seminal Vesicle		Dilatation	Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Testes		Atrophy	Mild
[ Atrophy TGLS = 5-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
Ureter		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 8-11 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 342

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G342

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Urinary Bladder  
[ Inflammation TGLS = 4-5 ]

Inflammation

Suppurative, Marked

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 343

TRT#: 9

SEX: Male

DAY ON TEST: 739

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G343

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar Epith	Hemorrhage	Minimal
		Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	[ Hemorrhage TGLS = 4-4 ]		
	[ Pigmentation TGLS = 5-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
	[ Pigmentation TGLS = 6-4 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Preputial Gland		Atrophy	Mild
	Bilateral	Ectasia	Moderate
	[ Atrophy TGLS = 1-6 ]		
	[ Ectasia TGLS = 2-6 ]		
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 344

TRT#: 9

SEX: Male

DAY ON TEST: 489

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G344

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	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	Ureter	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney	Pelvis	Dilatation	Mild
[ Dilatation TGLS = 6,7-3 ]			
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 5-9 ]			
* Lung	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 10-11 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland		Inflammation	Chronic, Marked
[ Inflammation TGLS = 3-6 ]			
Skin	Prepuce	Necrosis	Marked
		Necrosis	Marked
[ Necrosis TGLS = 2-14 ]			
[ Necrosis TGLS = 2-14 ]			
* Spleen		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 4-3 ]			
Urethra		Calculus Micro Observation Only	
[ Calculus Micro Observation Only TGLS = 9-13 ]			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 344

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 489

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G344

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

Animal Note: GLUTEAL LN CANNOT BE ENTERED INTO TDMS

Animal Note: GLUT LN=MILD LYMPHOID HYPERPLASIA

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 345

TRT#: 9

SEX: Male

DAY ON TEST: 738

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G345

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	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Adrenal Cortex	* Adrenal Medulla	* Lymph Node, Mediastinal	* Thymus
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OBSERVATIONS

* Kidney		Nephropathy	Moderate
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-3,9 ]			
* Lung	Alveolar Epith	Hyperplasia	Mild
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Minimal
[ Pigmentation TGLS = 3-4 ]			
* Lymph Node, Mesenteric		Congestion	Minimal
* Nose	Respirat Epith	Degeneration	Minimal
* Preputial Gland	Bilateral	Ectasia	Marked
[ Ectasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 346

TRT#: 9

SEX: Male

DAY ON TEST: 580

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G346

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Kidney	Renal Tubule	Mineralization	Minimal
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Iliac	Hyperplasia	Lymphoid, Moderate
	Inguinal	Hyperplasia	Lymphoid, Moderate
	[ Hyperplasia TGLS = 6-11,7-4,4-9 ]		
	[ Hyperplasia TGLS = 6-11,7-4,4-9 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
		[ Hyperplasia TGLS = 6-11,7-4,4-9 ]	
		[ Pigmentation TGLS = 7-4 ]	
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Chronic Active, Moderate
		[ Ectasia TGLS = 1-6 ]	
		[ Inflammation TGLS = 2-6 ]	
* Seminal Vesicle		Dilatation	Mild
Skin		Inflammation	Suppurative, Marked
		[ Inflammation TGLS = 3-10 ]	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 346

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 580

**DOSE:** 2.5MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/G346

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thyroid Gland

Hyperplasia

Cystic, Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 347

TRT#: 9

SEX: Male

DAY ON TEST: 684

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G347

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Kidney	Cortex	Inflammation	Chronic, Minimal
* Liver	Hepatocyte	Cytomegaly	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Moderate
	[ Pigmentation TGLS = 5-4 ]		
Penis		Concretion	Mild
	[ Concretion TGLS = 4-9 ]		
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 3-6 ]		
* Seminal Vesicle		Dilatation	Moderate
Skin	Prepuce	Inflammation	Suppurative, Marked
		Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 2-10,1-11 ]		
	[ Inflammation TGLS = 2-10,1-11 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 347

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 684

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G347

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 348

TRT#: 9

SEX: Male

DAY ON TEST: 739

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G348

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	* Islets, Pancreatic	* Larynx
* Liver	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Intestine Small, Ileum [ Lymphoma Malignant TGLS = 3-9 ]		Lymphoma Malignant	
* Kidney	Cortex	Cyst	
* Lung	Alveolar Epith Alveolar Epith  Alveolus	Hyperplasia Hyperplasia Inflammation Pigmentation	Focal, Mild Minimal Chronic, Minimal Mild
* Lymph Node, Bronchial  [ Hyperplasia TGLS = 2-5 ] [ Pigmentation TGLS = 5-4 ]		Hyperplasia Pigmentation	Lymphoid, Mild Mild
* Lymph Node, Mesenteric [ Hyperplasia TGLS = 2-5 ]		Hyperplasia	Lymphoid, Marked
* Preputial Gland  [ Atrophy TGLS = 1-6 ]	Bilateral	Atrophy Ectasia	Moderate Moderate
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 348

**TRT#:** 9

**DOSE:** 2.5MG/M3

**SEX:** Male

**DISP:** Terminal Sacrifice

**DAY ON TEST:** 739

**HISTO:** MZ031/G348

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 349	<b>TRT#:</b> 11	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 199
	<b>DOSE:</b> 2.5MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZO31-G349

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Lymph Node, Mediastinal                      \* Nose

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**OBSERVATIONS**

* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 350

TRT#: 9

SEX: Male

DAY ON TEST: 539

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G350

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Liver		Hepatocellular Adenoma Hepatocellular Carcinoma	
	[ Hepatocellular Adenoma TGLS = 3-11 ] [ Hepatocellular Carcinoma TGLS = 2-3,10 ]		
* Lung	Alveolar Epith	Hyperplasia Inflammation	Minimal Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 1-6 ]		
Skin		Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 4-9 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 351

TRT#: 9

SEX: Male

DAY ON TEST: 155

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G351

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Parathyroid Gland	* Thymus
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**AUTO PRECLUDES DIAG.**

* Gallbladder	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
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**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

**OBSERVATIONS**

* Lung	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
* Preputial Gland	Bilateral	Ectasia	Moderate
* Urin Bladder			

Note: UNUSUAL APPEARANCE OF BLADDER DUE TO ARTIFACT

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 352

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G352

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Bone		Hyperostosis	Minimal
* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 6-4 ]			
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 3-9 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 5-4 ]			
* Preputial Gland		Ectasia	Moderate
		Inflammation	Suppurative, Marked
[ Ectasia TGLS = 1-6 ]			
[ Inflammation TGLS = 2-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 3-9 ]			
* Thyroid Gland		Hyperplasia	Cystic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 352

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 737

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031/G352

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 353

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G353

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea			

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland	* Urinary Bladder
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OBSERVATIONS

* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Focal, Marked
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 3-4 ]			
* Nose	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Preputial Gland		Ectasia	Mild
	Bilateral	Inflammation	Chronic Active, Mild
[ Inflammation TGLS = 2-6 ]			
Skin	Subcut Tiss	Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-9 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 354

TRT#: 9

SEX: Male

DAY ON TEST: 540

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G354

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Islets, Pancreatic	* Kidney	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

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

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

INSUFFICIENT TISSUE

* Thymus
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OBSERVATIONS

* Liver		Hepatocellular Carcinoma Infarct	Marked
	[ Hepatocellular Carcinoma TGLS = 4-3,9 ] [ Infarct TGLS = 5-9 ]		
* Lung	Alveolus Alveolus	Pigmentation Proteinosis	Mild Mild
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Minimal
	[ Hyperplasia TGLS = 1-10 ]		
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland	Bilateral	Ectasia	Moderate
* Spleen		Hyperplasia	Lymphoid, Moderate
* Stomach, Glandular		Inflammation	Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 355

TRT#: 9

SEX: Male

DAY ON TEST: 739

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G355

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

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

* Adrenal Cortex		Hyperplasia	Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-3,9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Suppurative, Marked
[ Ectasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 356

TRT#: 9

SEX: Male

DAY ON TEST: 605

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G356

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

* Intestine Large, Cecum	* Lymph Node, Mediastinal	* Prostate
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**AUTO PRECLUDES DIAG.**

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

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3,4-9,10 ]			
* Lung	Alveolus	Inflammation	Chronic, Mild
		Pigmentation	Mild
* Lymph Node, Bronchial		Congestion	Mild
		Pigmentation	Mild
[ Congestion TGLS = 5-4 ]			
* Preputial Gland	Bilateral	Ectasia	Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 357

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G357

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex	Bilateral, Spindle Cell	Hyperplasia	Mild
* Liver		Clear Cell Focus	Minimal
[ Clear Cell Focus TGLS = 4-3 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hemorrhage	Mild
	Alveolus	Hyperplasia	Minimal
[ Alveolar/Bronchiolar Adenoma TGLS = 7-10 ]		Pigmentation	Mild
[ Hemorrhage TGLS = 8-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Pigmentation TGLS = 6-4 ]			
* Lymph Node, Mesenteric		Congestion	Moderate
[ Congestion TGLS = 3-5 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
* Urinary Bladder		Calculus Micro Observation Only	
[ Calculus Micro Observation Only TGLS = 5-5 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 357

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 737

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031/G357

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 358

TRT#: 9

SEX: Male

DAY ON TEST: 676

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G358

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	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Islets, Pancreatic		Hyperplasia	Minimal
* Kidney	Pelvis	Dilatation	Moderate
[ Dilatation TGLS = 6-3 ]			
* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	
	Alveolus	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
[ Alveolar/Bronchiolar Adenoma TGLS = 8-9 ]			
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 5-13,14,3-12 ]			
[ Hyperplasia TGLS = 5-13,14,3-12 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 7-4 ]			
Penis		Concretion	Marked
[ Concretion TGLS = 1-11 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 358	<b>TRT#:</b> 9 <b>DOSE:</b> 2.5MG/M3	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 676 <b>HISTO:</b> MZ031/G358
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Preputial Gland	Bilateral	Ectasia Inflammation	Moderate Chronic Active, Mild
[ Ectasia TGLS = 4-6 ] [ Inflammation TGLS = 4-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-10 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 359

TRT#: 9

SEX: Male

DAY ON TEST: 677

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G359

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 4-4,9 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
		[ Hyperplasia TGLS = 3-4 ]	
* Preputial Gland	Bilateral	Ectasia	Moderate
		[ Ectasia TGLS = 1-6 ]	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06  
Test Type: CHRONIC  
Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 10/23/2014  
Time Report Requested: 00:25:45  
First Dose M/F: NA / NA  
Lab: LITRI

ANIMAL ID: 360

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G360

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

**MISSING**

* Intestine Small, Ileum	* Mammary Gland	* Prostate	
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**OBSERVATIONS**

* Liver	Bile Duct	Cyst Hepatocellular Carcinoma	Multiple
			[ Cyst TGLS = 5,6-11,12 ] [ Hepatocellular Carcinoma TGLS = 7,8-3,13,14 ]
* Lung	Alveolar Epith	Hyperplasia Inflammation Pigmentation	Minimal Chronic, Minimal Mild
	Alveolus		[ Pigmentation TGLS = 11-4 ]
* Lymph Node, Bronchial		Pigmentation	Mild
			[ Pigmentation TGLS = 10-4 ]
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mediastinal		Hemangiosarcoma	Metastatic (Uncertain Primary Site)
* Preputial Gland	Bilateral	Ectasia	Moderate
			[ Ectasia TGLS = 2,3-6 ]
* Spleen		Hemangiosarcoma	
			[ Hemangiosarcoma TGLS = 4-9 ]
Tissue NOS		Inflammation	Suppurative, Mild
			[ Inflammation TGLS = 1-10 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 360

**TRT#:** 9

**DOSE:** 2.5MG/M3

**SEX:** Male

**DISP:** Terminal Sacrifice

**DAY ON TEST:** 737

**HISTO:** MZ031/G360

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 361

TRT#: 11

SEX: Male

DAY ON TEST: 458

DOSE: 2.5MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/G361

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

\* Parathyroid Gland

**OBSERVATIONS**

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
	[ Hyperplasia TGLS = 3-4 ]		
* Preputial Gland		Ectasia	Mild
	[ Ectasia TGLS = 1-6 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 362

TRT#: 9

SEX: Male

DAY ON TEST: 738

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G362

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 4-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Pigmentation TGLS = 7-4 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 6-4 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Suppurative, Moderate
[ Ectasia TGLS = 1-6 ]			
[ Inflammation TGLS = 2-6 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
[ Hematopoietic Cell Proliferation TGLS = 3-3 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 363

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G363

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	* Islets, Pancreatic	* Larynx
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Kidney	Cortex	Cyst	
	[ Cyst TGLS = 9-9 ]		
* Liver		Hepatocellular Adenoma	
	[ Hepatocellular Adenoma TGLS = 4-10 ]	Lymphoma Malignant	
* Lung	Alveolar Epith	Alveolar/Bronchiolar Carcinoma	
	Alveolus	Hyperplasia	Minimal
	[ Alveolar/Bronchiolar Carcinoma TGLS = 8-13 ]	Inflammation	Chronic, Mild
Lymph Node	Iliac	Pigmentation	Mild
	Pancreatic	Lymphoma Malignant	
	Iliac	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 1-6,6-2,3-11,5-5 ]	Pigmentation	Minimal
	[ Lymphoma Malignant TGLS = 1-6,6-2,3-11,5-5 ]		
	[ Pigmentation TGLS = 3-11,7-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
	[ Hyperplasia TGLS = 7-4 ]	Pigmentation	Mild
	[ Pigmentation TGLS = 3-11,7-4 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

**ANIMAL ID:** 363

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 737

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031/G363

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Lymph Node, Mandibular [ Lymphoma Malignant TGLS = 1-6,6-2,3-11,5-5 ]		Lymphoma Malignant	
* Lymph Node, Mediastinal [ Lymphoma Malignant TGLS = 1-6,6-2,3-11,5-5 ]		Lymphoma Malignant	
* Lymph Node, Mesenteric [ Lymphoma Malignant TGLS = 1-6,6-2,3-11,5-5 ]		Lymphoma Malignant	
* Nose	Respirat Epith Respirat Epith	Inflammation Metaplasia	Suppurative, Minimal Squamous, Mild
* Preputial Gland  [ Inflammation TGLS = 2-6 ]		Ectasia Inflammation	Marked Suppurative, Moderate
* Thymus		Lymphoma Malignant	
* Thyroid Gland	Follicular Cel	Adenoma Hyperplasia	Cystic, Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 365

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G365

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

INSUFFICIENT TISSUE

\* Intestine Large, Rectum

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-3 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Pigmentation TGLS = 3-4 ]			
* Preputial Gland	Bilateral	Ectasia	Marked
[ Ectasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 366

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G366

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation	Minimal Mild
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Minimal Mild
[ Hyperplasia TGLS = 2-4 ]			
[ Pigmentation TGLS = 2-4 ]			
* Preputial Gland		Ectasia	Marked
[ Ectasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 367

TRT#: 9

SEX: Male

DAY ON TEST: 676

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G367

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver		Basophilic Focus	Minimal
		Hepatocellular Adenoma	
	Hepatocyte	Necrosis	Minimal
	[ Hepatocellular Adenoma TGLS = 4-9 ]		
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
	[ Pigmentation TGLS = 10-4 ]		
* Lymph Node, Bronchial		Pigmentation	Mild
	[ Pigmentation TGLS = 9-4 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Preputial Gland		Atrophy	Moderate
		Ectasia	Marked
	[ Atrophy TGLS = 2-11 ]		
	[ Ectasia TGLS = 1-6 ]		
Skin	Prepuce	Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 3-11 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 367

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 676

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G367

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thyroid Gland  
[ Hyperplasia TGLS = 8-2 ]

Hyperplasia

Cystic, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 368

TRT#: 9

SEX: Male

DAY ON TEST: 704

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G368

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	* Islets, Pancreatic	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

* Bone		Developmental Malformation	
[ Developmental Malformation TGLS = 9-11 ]			
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney	Pelvis	Dilatation	Minimal
[ Dilatation TGLS = 6-3 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Mild
* Preputial Gland		Ectasia	Moderate
		Inflammation	Suppurative, Marked
[ Ectasia TGLS = 2-6 ]			
[ Inflammation TGLS = 3-6 ]			
* Seminal Vesicle		Dilatation	Mild
[ Dilatation TGLS = 5-6 ]			
Skin	Prepuce	Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-10 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
Urethra		Calculus Micro Observation Only	
[ Calculus Micro Observation Only TGLS = 4-9 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 368

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 704

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G368

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 369

TRT#: 11

SEX: Male

DAY ON TEST: 482

DOSE: 2.5MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/G369

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	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Kidney	Pelvis	Dilatation	Marked
[ Dilatation TGLS = 7-3 ]			
* Liver		Hepatocellular Adenoma	Multiple
[ Hepatocellular Adenoma TGLS = 5,6-3,11,12 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
	Iliac	Pigmentation	Minimal
[ Hyperplasia TGLS = 3-10 ]			
[ Pigmentation TGLS = 3-10 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 3-10 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-6 ]			
* Seminal Vesicle		Dilatation	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 369

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 482

**DOSE:** 2.5MG/M3 LUNGTX

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G369

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Dilatation TGLS = 2-6,9 ]

\* Spleen

Hematopoietic Cell Proliferation

Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 370

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G370

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Mammary Gland

**OBSERVATIONS**

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
		Pigmentation	Mild
* Lymph Node, Bronchial [ Pigmentation TGLS = 3-4 ]			
* Lymph Node, Mesenteric		Congestion	Mild
* Preputial Gland [ Inflammation TGLS = 1-6 ]		Inflammation	Chronic Active, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 371	<b>TRT#:</b> 11	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 199
	<b>DOSE:</b> 2.5MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZO31-G371

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Kidney	* Lymph Node, Mediastinal	* Nose
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**OBSERVATIONS**

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 372

TRT#: 11

SEX: Male

DAY ON TEST: 245

DOSE: 2.5MG/M3 LUNGTX

DISP: Natural Death

HISTO: MZ031/G372

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid 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	* Stomach, Forestomach	* Stomach, Glandular

OBSERVATIONS

* Lung	Alveolus Alveolus	Pigmentation Proteinosis Ectasia	Minimal Minimal Mild
* Preputial Gland [ Ectasia TGLS = 1-6 ]			
* Seminal Vesicle [ Dilatation TGLS = 2-6 ]		Dilatation	Mild
* Spleen		Hyperplasia	Lymphoid, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 373

TRT#: 11

SEX: Male

DAY ON TEST: 368

DOSE: 2.5MG/M3 LUNGTX

DISP: Natural Death

HISTO: MZ031/G373

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Heart	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

* Gallbladder	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid 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**

* Bone		Hyperostosis	Moderate
* Kidney	Pelvis	Dilatation	Moderate
		Nephropathy	Marked
[ Dilatation TGLS = 3-3 ]			
* Lung	Pleura	Fibrosis	Moderate
	Alveolus	Pigmentation	Minimal
[ Fibrosis TGLS = 6-4,9 ]			
* Lymph Node, Bronchial		Pigmentation	Minimal
* Preputial Gland		Ectasia	Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 374

TRT#: 9

SEX: Male

DAY ON TEST: 552

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G374

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	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Kidney [ Dilatation TGLS = 6,7-3 ]	Pelvis	Dilatation	Mild
* Liver [ Hepatocellular Adenoma TGLS = 4-3,13 ] [ Necrosis TGLS = 5-3 ]	Hepatocyte	Hepatocellular Adenoma Necrosis	Mild
* Lung Lymph Node [ Hyperplasia TGLS = 1-10 ]	Alveolus Alveolus Inguinal	Pigmentation Proteinosis Hyperplasia	Minimal Moderate Lymphoid, Moderate
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland [ Inflammation TGLS = 2-6 ]		Inflammation	Suppurative, Marked
* Prostate		Inflammation	Suppurative, Mild
* Seminal Vesicle		Dilatation	Mild
Skin [ Inflammation TGLS = 9-5,9 ]		Inflammation	Suppurative, Marked
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thyroid Gland		Hyperplasia	Cystic, Minimal
Urethra		Calculus Micro Observation Only	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 374

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 552

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G374

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Calculus Micro Observation Only TGLS = 3-11 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 375

TRT#: 9

SEX: Male

DAY ON TEST: 738

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G375

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex	Capsule	Adenoma	
* Lung	Alveolus	Alveolar/Bronchiolar Carcinoma	
	[ Alveolar/Bronchiolar Carcinoma TGLS = 4-4,9 ]	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
	[ Pigmentation TGLS = 5-4 ]	Pigmentation	Mild
* Preputial Gland	Bilateral	Ectasia	Mild
	[ Ectasia TGLS = 1-6 ]		
* Seminal Vesicle		Dilatation	Marked
	[ Dilatation TGLS = 2-6,10 ]	Inflammation	Chronic, Mild
* Testes	Interstitial Cell	Adenoma	
	[ Adenoma TGLS = 3-6 ]		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 377

TRT#: 9

SEX: Male

DAY ON TEST: 738

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G377

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia Inflammation	Minimal Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Moderate
	[ Pigmentation TGLS = 1-4 ]		
* Nose	Olfactory Epi Respirat Epith	Degeneration Metaplasia	Minimal Squamous, Minimal
* Preputial Gland		Ectasia	Mild
Tooth		Odontoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 378

TRT#: 11

SEX: Male

DAY ON TEST: 458

DOSE: 2.5MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/G378

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 2-3,9 ]		
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Preputial Gland		Ectasia	Mild
* Spleen		Hyperplasia	Lymphoid, Minimal
	[ Hyperplasia TGLS = 1-3 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 379

TRT#: 9

SEX: Male

DAY ON TEST: 649

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G379

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mediastinal	* Thymus
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OBSERVATIONS

Harderian Gland [ Adenoma TGLS = 2-10 ]		Adenoma	
* Liver [ Hepatocellular Adenoma TGLS = 4-3,9 ]		Hepatocellular Adenoma	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial [ Pigmentation TGLS = 5-4 ]		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Preputial Gland [ Ectasia TGLS = 1-6 ]	Bilateral	Ectasia	Moderate
* Seminal Vesicle		Dilatation	Moderate
* Testes [ Adenoma TGLS = 6-6 ]	Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 380

TRT#: 9

SEX: Male

DAY ON TEST: 712

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G380

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Glandular
* Testes	* Trachea	* Urinary Bladder	

**MISSING**

* Lymph Node, Mediastinal	* Parathyroid 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		

**OBSERVATIONS**

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Mild
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland		Ectasia	Marked
		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-6 ]			
* Stomach, Forestomach		Hyperkeratosis	Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 381

TRT#: 11

SEX: Male

DAY ON TEST: 679

DOSE: 2.5MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/G381

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	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex		Cyst	
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Liver		Hepatocellular Carcinoma	Multiple
[ Hepatocellular Carcinoma TGLS = 4,5-9,10 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Minimal
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 1-12,13 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 6-4 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 3-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-11 ]			
* Thyroid Gland	Follicular Cel	Adenoma	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 382

TRT#: 9

SEX: Male

DAY ON TEST: 709

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G382

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

* Gallbladder	* Intestine Large, Colon	* Intestine Large, Rectum	* Larynx
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Pituitary Gland	

**AUTO PRECLUDES DIAG.**

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

* Kidney		Necrosis	Minimal
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3,4-3,9 ]			
* Lung		Hepatocellular Carcinoma	Metastatic (Uncertain Primary Site)
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland	Bilateral	Ectasia	Marked
[ Ectasia TGLS = 1-6 ]			
* Spleen		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-3 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 383

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 199

**DOSE:** 2.5MG/M3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-G383

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Kidney

\* Lymph Node, Mediastinal

\* Nose

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**OBSERVATIONS**

\* Lung

Alveolus

Inflammation

Chronic, Minimal

Pigmentation

Minimal

\* Lymph Node, Bronchial

Hyperplasia

Lymphoid, Minimal

Pigmentation

Minimal

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[ Hyperplasia TGLS = 2-4 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE





Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 386

TRT#: 9

SEX: Male

DAY ON TEST: 738

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G386

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	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Thymus

OBSERVATIONS

* Intestine Small, Duodenum [ Adenoma TGLS = 3-9 ]		Adenoma	
* Lung [ Pigmentation TGLS = 5-4 ]	Alveolar Epith Alveolus	Hyperplasia Inflammation Pigmentation	Minimal Chronic, Minimal Mild
* Lymph Node, Bronchial [ Pigmentation TGLS = 4-4 ]		Hyperplasia Pigmentation	Lymphoid, Mild Mild
* Preputial Gland [ Ectasia TGLS = 1-6 ]	Bilateral	Ectasia	Moderate
* Spleen [ Hyperplasia TGLS = 2-3 ]		Hyperplasia	Lymphoid, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 387

TRT#: 9

SEX: Male

DAY ON TEST: 660

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G387

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Liver
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Pancreas
Penis	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Parathyroid Gland	
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Kidney	Pelvis	Dilatation	Moderate
	Pelvis	Inflammation	Chronic, Moderate
[ Dilatation TGLS = 7-3 ]			
* Lung	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Mild
Lymph Node	Iliac	Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 6-10 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 8-4 ]			
* Lymph Node, Mesenteric		Inflammation	Suppurative, Mild
[ Inflammation TGLS = 4-6 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Marked
[ Hematopoietic Cell Proliferation TGLS = 5-3 ]			
* Urinary Bladder		Inflammation	Chronic Active, Marked
	Transit Epithe	Metaplasia	Squamous, Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 387

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 660

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G387

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Inflammation TGLS = 3-5 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 388

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G388

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea	* Urinary Bladder	

**MISSING**

\* Thymus

**OBSERVATIONS**

* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation	Minimal Mild
[ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Mild
[ Pigmentation TGLS = 3-4 ]			
* Pituitary Gland	Pars Distalis	Cyst	
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 389

TRT#: 9

SEX: Male

DAY ON TEST: 665

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G389

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Lung	Alveolar Epith Alveolus Alveolus	Hyperplasia Pigmentation Proteinosis Pigmentation Congestion Inflammation	Minimal Mild Mild Mild Moderate Suppurative, Mild
* Lymph Node, Bronchial			
* Lymph Node, Mesenteric			
[ Congestion TGLS = 4-5 ]			
[ Inflammation TGLS = 4-5 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1,2-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 3-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 390

TRT#: 9

SEX: Male

DAY ON TEST: 660

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G390

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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OBSERVATIONS

* Lung	Alveolus	Pigmentation	Minimal
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 3-12 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
* Nose	Respirat Epith	Degeneration	Minimal
Penis		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-10 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 4-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 391

TRT#: 9

SEX: Male

DAY ON TEST: 629

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G391

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	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Adrenal Cortex	Spindle Cell	Hyperplasia	Minimal
* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Liver	Hepatocyte	Cyst	
		Necrosis	Minimal
[ Cyst TGLS = 4-11 ]			
* Lung	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 3-9,2-10 ]			
[ Hyperplasia TGLS = 3-9,2-10 ]			
* Lymph Node, Bronchial		Pigmentation	Minimal
* Preputial Gland	Bilateral	Ectasia	Mild
Skin	Prepuce	Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 1-6 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 392

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G392

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	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Epididymis		Granuloma Sperm	Marked
[ Granuloma Sperm TGLS = 3-9 ]			
Harderian Gland		Adenoma	
[ Adenoma TGLS = 2-7 ]			
* Liver		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Mild
[ Pigmentation TGLS = 5-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Mesenteric		Congestion	Mild
* Preputial Gland		Ectasia	Moderate
		Inflammation	Chronic Active, Marked
[ Ectasia TGLS = 1-6 ]			
[ Inflammation TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Urinary Bladder		Calculus Micro Observation Only	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 392

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 737

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031/G392

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 393

TRT#: 11

SEX: Male

DAY ON TEST: 458

DOSE: 2.5MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/G393

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Mediastinal	* Urinary Bladder
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OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-3,9 ]			
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
[ Hyperplasia TGLS = 2-4 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 394

TRT#: 9

SEX: Male

DAY ON TEST: 483

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G394

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mediastinal

**INSUFFICIENT TISSUE**

\* Lymph Node, Mesenteric

**OBSERVATIONS**

* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 3-4,9 ]		
* Lymph Node, Bronchial		Pigmentation	Minimal
* Preputial Gland		Ectasia	Marked
		Inflammation	Chronic Active, Marked
	[ Ectasia TGLS = 1-6 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 395

TRT#: 9

SEX: Male

DAY ON TEST: 737

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G395

**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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

**MISSING**

\* Pituitary Gland

**INSUFFICIENT TISSUE**

\* Intestine Large, Rectum                      \* Lymph Node, Mediastinal

**OBSERVATIONS**

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Pigmentation	Minimal
[ Pigmentation TGLS = 2-4 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
Tooth	Peridont Tiss	Inflammation	Chronic Active, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 396

TRT#: 9

SEX: Male

DAY ON TEST: 738

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G396

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, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

INSUFFICIENT TISSUE

\* Lymph Node, Bronchial

OBSERVATIONS

* Intestine Large, Cecum		Inflammation	Chronic, Minimal
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Moderate
	[ Alveolar/Bronchiolar Carcinoma TGLS = 5-4,9 ]	Pigmentation	Mild
* Lymph Node, Mesenteric		Congestion	Mild
		Hyperplasia	Macrophage, Moderate
		Hyperplasia	Lymphoid, Moderate
	[ Congestion TGLS = 3-5 ]		
	[ Hyperplasia TGLS = 3-5 ]		
	[ Hyperplasia TGLS = 3-5 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Preputial Gland		Ectasia	Mild
	[ Ectasia TGLS = 1-6 ]		
* Thymus		Cyst	
* Thyroid Gland		Hyperplasia	Cystic, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 396

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 738

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031/G396

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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:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 397	<b>TRT#:</b> 11	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 458
	<b>DOSE:</b> 2.5MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZ031/G397

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

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**OBSERVATIONS**

* Lung	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland		Ectasia	Minimal
[ Ectasia TGLS = 1-6 ]			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 398

TRT#: 9

SEX: Male

DAY ON TEST: 718

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G398

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mediastinal	* Thymus
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OBSERVATIONS

* Kidney [ Dilatation TGLS = 3-3 ]	Pelvis	Dilatation	Moderate
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial [ Hyperplasia TGLS = 5-4 ] [ Pigmentation TGLS = 5-4 ]		Proteinosis	Minimal
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Preputial Gland	Bilateral	Ectasia	Moderate
Skin [ Inflammation TGLS = 1-9 ]		Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 400

TRT#: 9

SEX: Male

DAY ON TEST: 483

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G400

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

AUTO PRECLUDES DIAG.

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

* Lung	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Preputial Gland		Ectasia	Moderate
	[ Ectasia TGLS = 2-11 ]		
* Seminal Vesicle		Dilatation	Moderate
	[ Dilatation TGLS = 7-10 ]		

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL1,ING.LN NOT IN 3 RECUTS OR WET TISSUE REVIEW

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 481

TRT#: 13

SEX: Male

DAY ON TEST: 739

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H481

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
		Pigmentation	Moderate
	[ Inflammation TGLS = 4-4 ]		
	[ Pigmentation TGLS = 4-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
	[ Hyperplasia TGLS = 3-4 ]		
* Preputial Gland		Ectasia	Mild
	[ Ectasia TGLS = 2-6 ]		
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 482

TRT#: 15

SEX: Male

DAY ON TEST: 698

DOSE: 5.0MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/H482

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Epididymis		Inflammation	Chronic Active, Minimal
* Liver	Hepatocyte	Hyperplasia	Minimal
[ Hyperplasia TGLS = 6-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Minimal
[ Pigmentation TGLS = 9-4 ]		Pigmentation	Mild
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 1-11,12 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 10-4 ]			
Penis		Concretion	Mild
[ Concretion TGLS = 4-13 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Suppurative, Moderate
[ Ectasia TGLS = 3-6 ]			
[ Inflammation TGLS = 2-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 5-10 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 482

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 698

**DOSE:** 5.0MG/M3 LUNGTX

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H482

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 483

TRT#: 13

SEX: Male

DAY ON TEST: 738

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H483

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Eosinophilic Focus	
[ Eosinophilic Focus TGLS = 1-9 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Moderate
Note: 3 LUNG NOD'S,1 LOBE,CONSIDERED 1 TUMOR			
[ Alveolar/Bronchiolar Adenoma TGLS = 4-4,10 ]			
[ Inflammation TGLS = 2-4 ]			
[ Pigmentation TGLS = 2-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 5-4 ]			
[ Pigmentation TGLS = 3-4 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
Stomach			
Note: [ SQ CL PAPILOM ] TGLs = 6-5			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 483

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 738

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H483

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**ORGAN AND ACCOUNTABLE SITE STATUS**

\* Stomach, Forestomach

[ Squamous Cell Papilloma TGLS = 6-5 ]

Squamous Cell Papilloma

\* Thyroid Gland

Hyperplasia

Cystic, Minimal

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PRIMARY CAUSE OF DEATH

-

Animal Note: PAPILOMA BASE NOT PRESENT, RECUTS DON'T HELP

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 484

TRT#: 13

SEX: Male

DAY ON TEST: 736

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H484

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Liver	Hepatocyte	Hepatocellular Carcinoma Necrosis	Marked
	[ Hepatocellular Carcinoma TGLS = 4,5-10,11 ]		
	[ Necrosis TGLS = 3-3 ]		
* Lung	Alveolus	Hepatocellular Carcinoma Pigmentation	Metastatic (Uncertain Primary Site) Mild
	[ Pigmentation TGLS = 8-4 ]		
* Lymph Node, Bronchial		Pigmentation	Mild
	[ Pigmentation TGLS = 7-4 ]		
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 2-6 ]		
Skin		Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 1-9 ]		
* Testes	Bilateral	Atrophy	Moderate
	[ Atrophy TGLS = 6-6 ]		
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 485

TRT#: 13

SEX: Male

DAY ON TEST: 543

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H485

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 3-9 ]			
* Lung	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
		Proteinosis	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-10 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06  
Test Type: CHRONIC  
Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 10/23/2014  
Time Report Requested: 00:25:45  
First Dose M/F: NA / NA  
Lab: LITRI

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ANIMAL ID: 486	TRT#: 13 DOSE: 5.0MG/M3	SEX: Male DISP: Natural Death	DAY ON TEST: 194 HISTO: MZ031/H486
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	

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**MISSING**

* Gallbladder	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Parathyroid 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	* Urinary Bladder	

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**OBSERVATIONS**

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
* Preputial Gland	Bilateral	Ectasia	Marked

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 487

TRT#: 13

SEX: Male

DAY ON TEST: 739

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H487

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Heart		Inflammation	Chronic, Mild
Note: SMALL FOCUS, RECUTS DIDN'T REVEAL MORE			
* Liver		Basophilic Focus	
		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
		Infarct	Marked
Note: 3 ADENOMAS, 2 ARE TGLS			
[ Basophilic Focus TGLS = 5-9 ]			
[ Hepatocellular Adenoma TGLS = 4-10 ]			
[ Hepatocellular Carcinoma TGLS = 3-11 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Pigmentation TGLS = 6-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 7-4 ]			
* Preputial Gland		Ectasia	Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 487

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 739

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H487

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Inflammation

Chronic, Mild

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[ Ectasia TGLS = 2-6,1-6 ]

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 488

TRT#: 13

SEX: Male

DAY ON TEST: 739

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H488

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Moderate
* Lymph Node, Bronchial		Proteinosis	Minimal
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Moderate
[ Pigmentation TGLS = 2-4 ]			
* Preputial Gland	Bilateral	Ectasia	Marked
[ Ectasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 489

TRT#: 13

SEX: Male

DAY ON TEST: 738

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H489

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Lung	Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia
		Inflammation
	Alveolus	Pigmentation
	[ Alveolar/Bronchiolar Carcinoma TGLS = 2-9 ]	
* Lymph Node, Bronchial		Hyperplasia
		Pigmentation
		[ Hyperplasia TGLS = 3-4 ]
* Preputial Gland		Ectasia
		Inflammation
		[ Inflammation TGLS = 1-6 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 490

TRT#: 13

SEX: Male

DAY ON TEST: 527

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H490

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mediastinal	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Hepatocholangiocarcinoma	Metastatic (Liver)
[ Hepatocholangiocarcinoma TGLS = 4,5-3,13 ]			
* Liver		Hepatocholangiocarcinoma	
[ Hepatocholangiocarcinoma TGLS = 1-14 ]			
* Lung		Hepatocholangiocarcinoma	Metastatic (Liver)
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Hepatocholangiocarcinoma TGLS = 7,8,9,10,11-4,9,10,11,12 ]			
* Lymph Node, Bronchial		Hepatocholangiocarcinoma	Metastatic (Liver)
[ Hepatocholangiocarcinoma TGLS = 6-4 ]			
* Lymph Node, Mesenteric		Hepatocholangiocarcinoma	Metastatic (Liver)
[ Hepatocholangiocarcinoma TGLS = 6-4 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
* Thymus		Hepatocholangiocarcinoma	Metastatic (Liver)
[ Hepatocholangiocarcinoma TGLS = 3-2 ]			
Tissue NOS		Hepatocholangiocarcinoma	Metastatic (Liver)
[ Hepatocholangiocarcinoma TGLS = 2-15,16 ]			
* Urinary Bladder	Transit Epithe	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 490

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 527

**DOSE:** 5.0MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/H490

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 491

TRT#: 13

SEX: Male

DAY ON TEST: 737

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H491

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* 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, Mediastinal

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-9 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
		Alveolar/Bronchiolar Carcinoma	
		Fibrosis	Minimal
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Moderate
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Mild
[ Alveolar/Bronchiolar Adenoma TGLS = 4-12 ]			
[ Alveolar/Bronchiolar Carcinoma TGLS = 5-4,11 ]			
[ Inflammation TGLS = 6-4,11,12 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Preputial Gland		Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thymus		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 491

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 737

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H491

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Atrophy TGLS = 3-2 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 492

TRT#: 15

SEX: Male

DAY ON TEST: 458

DOSE: 5.0MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/H492

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Cortex
- \* Brain
- \* Heart
- \* Intestine Small, Duodenum
- \* Kidney
- \* Lymph Node, Mediastinal
- \* Pancreas
- \* Prostate
- \* Stomach, Forestomach
- \* Thyroid Gland

- \* Adrenal Medulla
- \* Epididymis
- \* Intestine Large, Cecum
- \* Intestine Small, Ileum
- \* Larynx
- \* Lymph Node, Mesenteric
- \* Parathyroid Gland
- \* Salivary Glands
- \* Stomach, Glandular
- \* Trachea

- \* Bone
- \* Esophagus
- \* Intestine Large, Colon
- \* Intestine Small, Jejunum
- \* Liver
- \* Mammary Gland
- \* Pituitary Gland
- \* Seminal Vesicle
- \* Testes
- \* Urinary Bladder

- \* Bone Marrow
- \* Gallbladder
- \* Intestine Large, Rectum
- \* Islets, Pancreatic
- \* Lymph Node, Mandibular
- \* Nose
- \* Preputial Gland
- \* Spleen
- \* Thymus

OBSERVATIONS

- \* Lung
- \* Lymph Node, Bronchial

Alveolus  
Alveolus

Inflammation  
Pigmentation  
Proteinosis  
Hyperplasia  
Pigmentation

Chronic, Mild  
Moderate  
Minimal  
Lymphoid, Moderate  
Minimal

[ Hyperplasia TGLS = 2-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 493

TRT#: 15

SEX: Male

DAY ON TEST: 458

DOSE: 5.0MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/H493

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation	Minimal Mild
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Minimal

[ Hyperplasia TGLS = 2-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 494

TRT#: 13

SEX: Male

DAY ON TEST: 739

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: /MZ031-H494

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Lung	Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia
		Inflammation
	Alveolus	Pigmentation
	Alveolus	Proteinosis
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-9 ]	
	[ Pigmentation TGLS = 3-4 ]	
	[ Proteinosis TGLS = 3-4 ]	
* Lymph Node, Bronchial		Hyperplasia
		Pigmentation
		[ Pigmentation TGLS = 4-4 ]
* Lymph Node, Mandibular		Hyperplasia
* Preputial Gland		Ectasia
		Inflammation
		[ Inflammation TGLS = 1-6 ]
* Thyroid Gland		Hyperplasia
Urethra		Concretion

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 494

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 739

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** /MZ031-H494

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 495

TRT#: 13

SEX: Male

DAY ON TEST: 241

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H495

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

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

* Lung	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Mild
* Preputial Gland		Ectasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 496

TRT#: 13

SEX: Male

DAY ON TEST: 739

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H496

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Intestine Large, Cecum		Hyperplasia	Lymphoid, Moderate
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 5-4 ]			
[ Pigmentation TGLS = 5-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Moderate
[ Hyperplasia TGLS = 4-4 ]			
* Preputial Gland	Bilateral	Ectasia	Mild
[ Ectasia TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
Urethra		Concretion	Marked
[ Concretion TGLS = 2-9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 498

TRT#: 13

SEX: Male

DAY ON TEST: 737

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H498

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
		Pigmentation	Moderate
	[ Inflammation TGLS = 4-4 ]		
	[ Pigmentation TGLS = 4-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Moderate
	[ Pigmentation TGLS = 3-4 ]		
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 1-6 ]		
* Urinary Bladder		Calculus Gross Observation	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 499

TRT#: 15

SEX: Male

DAY ON TEST: 21

DOSE: 5.0MG/M3 LUNGTX

DISP: Natural Death

HISTO: MZ031/H499

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Brain  
\* Intestine Large, Cecum  
\* Larynx  
\* Mammary Gland  
\* Preputial Gland  
\* Spleen  
\* Thymus

\* Adrenal Medulla  
\* Epididymis  
\* Intestine Large, Colon  
\* Liver  
\* Nose  
\* Prostate  
\* Stomach, Forestomach  
\* Thyroid Gland

\* Bone  
\* Esophagus  
\* Islets, Pancreatic  
\* Lymph Node, Mandibular  
\* Pancreas  
\* Salivary Glands  
\* Stomach, Glandular  
\* Trachea

\* Bone Marrow  
\* Heart  
\* Kidney  
\* Lymph Node, Mesenteric  
\* Pituitary Gland  
\* Seminal Vesicle  
\* Testes  
\* Urinary Bladder

MISSING

\* Gallbladder  
\* Parathyroid Gland

\* Intestine Large, Rectum

\* Lymph Node, Bronchial

\* Lymph Node, Mediastinal

AUTO PRECLUDES DIAG.

\* Intestine Small, Duodenum

\* Intestine Small, Ileum

\* Intestine Small, Jejunum

OBSERVATIONS

\* Lung  
[ Congestion TGLS = 1-4 ]

Congestion

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 500

TRT#: 13

SEX: Male

DAY ON TEST: 580

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H500

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Kidney [ Dilatation TGLS = 5-3 ]	Pelvis	Dilatation	Minimal
* Lung	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Lymph Node	Proteinosis	Mild
[ Hyperplasia TGLS = 4-11 ]	Iliac	Hyperplasia	Lymphoid, Mild
* Lymph Node, Bronchial		Pigmentation	Mild
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
Penis [ Inflammation TGLS = 2-9 ]		Inflammation	Suppurative, Moderate
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Suppurative, Mild
[ Ectasia TGLS = 1-6 ]			
[ Inflammation TGLS = 1-6 ]			
Skin [ Inflammation TGLS = 3-10 ]		Inflammation	Suppurative, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:45  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 500

**TRT#:** 13

**DOSE:** 5.0MG/M3

**SEX:** Male

**DISP:** Moribund Sacrifice

**DAY ON TEST:** 580

**HISTO:** MZ031/H500

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 501

TRT#: 13

SEX: Male

DAY ON TEST: 137

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H501

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	* Islets, Pancreatic	* Larynx	* Mammary Gland
* Nose	* Pancreas	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Parathyroid Gland	* Pituitary Gland
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OBSERVATIONS

* Intestine Large, Cecum		Lymphoma Malignant	
* Intestine Small, Ileum		Lymphoma Malignant	
* Kidney		Lymphoma Malignant	
* Liver		Lymphoma Malignant	
* Lung		Lymphoma Malignant	
	Alveolus	Pigmentation	Minimal
	[ Lymphoma Malignant TGLS = 10-4 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 9-4,8-10,5-5,2-6 ]		
* Lymph Node, Mandibular		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 9-4,8-10,5-5,2-6 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 9-4,8-10,5-5,2-6 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 9-4,8-10,5-5,2-6 ]		
* Preputial Gland		Atrophy	Marked
	Bilateral	Ectasia	Marked
	[ Atrophy TGLS = 1-6 ]		
	[ Ectasia TGLS = 1-6 ]		
* Spleen		Lymphoma Malignant	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:45

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

**Lab:** LITRI

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**ANIMAL ID:** 501

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 137

**DOSE:** 5.0MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/H501

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Lymphoma Malignant TGLS = 3,4-3,9 ]

\* Thymus

Lymphoma Malignant

[ Lymphoma Malignant TGLS = 7-2 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:45

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 502

TRT#: 13

SEX: Male

DAY ON TEST: 698

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H502

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Intestine Large, Colon		Lymphoma Malignant	
* Liver	Hepatocyte	Hyperplasia	Minimal
[ Hyperplasia TGLS = 6-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Pigmentation TGLS = 10-4 ]		Proteinosis	Mild
[ Proteinosis TGLS = 10-4 ]			
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Moderate
	Iliac	Lymphoma Malignant	
[ Hyperplasia TGLS = 3-12 ]			
[ Lymphoma Malignant TGLS = 9-4,7-10 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Mild
[ Lymphoma Malignant TGLS = 9-4,7-10 ]			
[ Pigmentation TGLS = 9-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 3-12 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 502	<b>TRT#:</b> 13 <b>DOSE:</b> 5.0MG/M3	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 698 <b>HISTO:</b> MZ031/H502
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Lymph Node, Mesenteric [ Congestion TGLS = 4-5 ]		Congestion	Minimal
* Preputial Gland [ Ectasia TGLS = 2-6 ] [ Inflammation TGLS = 1-6 ]	Bilateral	Ectasia Inflammation	Moderate Suppurative, Mild
* Spleen Ureter [ Concretion TGLS = 5-11 ]		Hematopoietic Cell Proliferation Concretion	Minimal Mild

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 503

TRT#: 13

SEX: Male

DAY ON TEST: 739

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H503

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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**INSUFFICIENT TISSUE**

\* Prostate

**OBSERVATIONS**

* Lung	Alveolar Epith	Hyperplasia Inflammation	Minimal Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
	[ Pigmentation TGLS = 5-4 ]		
* Lymph Node, Bronchial		Pigmentation	Mild
Note: TGL - 4 = NCL			
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 1-6 ]		
Skin		Necrosis	Marked
Note: SKIN OF TAIL			
	[ Necrosis TGLS = 6-10 ]		
* Spleen		Hyperplasia	Lymphoid, Mild
Urethra		Concretion	Marked
	[ Concretion TGLS = 3-9 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 503

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 739

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H503

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 504

TRT#: 15

SEX: Male

DAY ON TEST: 458

DOSE: 5.0MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/H504

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Liver		Eosinophilic Focus	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
[ Hyperplasia TGLS = 1-4 ]			
* Preputial Gland		Ectasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 505

TRT#: 13

SEX: Male

DAY ON TEST: 739

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H505

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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INSUFFICIENT TISSUE

\* Larynx

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia Inflammation Pigmentation	Minimal Chronic, Moderate Mild
	Alveolus		
	[ Inflammation TGLS = 3-4 ]		
	[ Pigmentation TGLS = 3-4 ]		
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Mild
	[ Hyperplasia TGLS = 2-4 ]		
* Nose	Respirat Epith	Inflammation Ectasia	Suppurative, Minimal Mild
* Preputial Gland			
	[ Ectasia TGLS = 1-6 ]		
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 506

TRT#: 13

SEX: Male

DAY ON TEST: 737

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H506

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Moderate
		Proteinosis	Minimal
	[ Inflammation TGLS = 3-4 ]		
	[ Pigmentation TGLS = 3-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
	[ Pigmentation TGLS = 2-4 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Preputial Gland	Bilateral	Ectasia	Mild
	[ Ectasia TGLS = 1-6 ]		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 507

TRT#: 15

SEX: Male

DAY ON TEST: 615

DOSE: 5.0MG/M3 LUNGTX

DISP: Natural Death

HISTO: MZ031/H507

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	* Islets, Pancreatic
* Larynx	* Liver	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Kidney		Lymphoma Malignant	
* Lung		Alveolar/Bronchiolar Adenoma	
		Inflammation	Chronic, Minimal
		Lymphoma Malignant	
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
Lymph Node	Iliac	Lymphoma Malignant	
	Inguinal	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 10-2,7-15,6-5,11-4,8-13,14,1,2-11,12 ]		
	[ Lymphoma Malignant TGLS = 10-2,7-15,6-5,11-4,8-13,14,1,2-11,12 ]		
	[ Lymphoma Malignant TGLS = 10-2,7-15,6-5,11-4,8-13,14,1,2-11,12 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Minimal
	[ Lymphoma Malignant TGLS = 10-2,7-15,6-5,11-4,8-13,14,1,2-11,12 ]		
* Lymph Node, Mandibular		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 10-2,7-15,6-5,11-4,8-13,14,1,2-11,12 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 10-2,7-15,6-5,11-4,8-13,14,1,2-11,12 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 507	<b>TRT#:</b> 15	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 615
	<b>DOSE:</b> 5.0MG/M3 LUNGTX	<b>DISP:</b> Natural Death	<b>HISTO:</b> MZ031/H507

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Lymphoma Malignant TGLS = 10-2,7-15,6-5,11-4,8-13,14,1,2-11,12 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 4-6 ]			
Skin		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 3-10 ]			
* Spleen		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 5-3,9 ]			

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 508

TRT#: 13

SEX: Male

DAY ON TEST: 538

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H508

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pituitary Gland	* Prostate	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Kidney [ Dilatation TGLS = 5,6-3 ]	Pelvis	Dilatation	Minimal
* Lung [ Inflammation TGLS = 8-4 ]	Alveolar Epith Alveolus Alveolus	Hyperplasia Inflammation Pigmentation Proteinosis	Minimal Chronic, Minimal Mild Moderate
Lymph Node [ Hyperplasia TGLS = 3-9,1-10,2-4 ] [ Hyperplasia TGLS = 3-9,1-10,2-4 ]	Iliac Inguinal	Hyperplasia Hyperplasia	Lymphoid, Moderate Lymphoid, Moderate
* Lymph Node, Bronchial [ Hyperplasia TGLS = 3-9,1-10,2-4 ]		Hyperplasia Pigmentation	Lymphoid, Minimal Mild
* Lymph Node, Mesenteric		Congestion	Moderate
* Pancreas		Cyst	
* Preputial Gland [ Ectasia TGLS = 4-6 ]	Bilateral	Ectasia Inflammation	Marked Suppurative, Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 508	<b>TRT#:</b> 13 <b>DOSE:</b> 5.0MG/M3	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 538 <b>HISTO:</b> MZ031/H508
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Seminal Vesicle	Dilatation	Mild
* Thyroid Gland	Hyperplasia	Cystic, Minimal
Urethra	Calculus Micro Observation Only	

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 509

TRT#: 13

SEX: Male

DAY ON TEST: 616

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H509

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 4-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Moderate
[ Pigmentation TGLS = 9-4 ]			
Lymph Node	Iliac	Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 5-11 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 8-4 ]			
* Lymph Node, Mesenteric		Congestion	Mild
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Preputial Gland		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-6 ]			
* Seminal Vesicle		Dilatation	Mild
Skin	Prepuce	Inflammation	Marked
[ Inflammation TGLS = 2-10 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
Urethra		Calculus Micro Observation Only	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 509

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 616

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H509

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Calculus Micro Observation Only TGLS = 3-12 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 510

TRT#: 13

SEX: Male

DAY ON TEST: 737

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H510

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Intestine Large, Rectum	* Larynx	* Lymph Node, Mediastinal	
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OBSERVATIONS

* Kidney	Pelvis	Hyperplasia	Squamous, Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 3-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 2-4 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 511

TRT#: 13

SEX: Male

DAY ON TEST: 641

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H511

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

AUTO PRECLUDES DIAG.

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

* Liver [ Hepatocellular Carcinoma TGLS = 2,3,5-3,9,10 ]		Hepatocellular Carcinoma	Multiple
* Lung [ Alveolar/Bronchiolar Adenoma TGLS = 8-4 ] [ Hepatocellular Carcinoma TGLS = 9,10-4,11 ] [ Inflammation TGLS = 12-4 ]	Alveolus	Alveolar/Bronchiolar Adenoma Hepatocellular Carcinoma Inflammation Pigmentation	Metastatic (Uncertain Primary Site) Chronic, Mild Mild
* Lymph Node, Bronchial [ Pigmentation TGLS = 11-4 ]		Pigmentation	Minimal
* Lymph Node, Mediastinal		Congestion	Mild
* Lymph Node, Mesenteric		Congestion	Moderate
* Preputial Gland		Atrophy	Moderate
* Spleen [ Hyperplasia TGLS = 1-3 ]	Bilateral	Ectasia Hyperplasia	Marked Lymphoid, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 512

TRT#: 13

SEX: Male

DAY ON TEST: 706

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H512

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Intestine Small, Duodenum	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	Minimal
	Alveolus	Inflammation	Chronic, Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 9-9 ]	Pigmentation	Moderate
	[ Pigmentation TGLS = 7-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
	[ Pigmentation TGLS = 6-4 ]		
* Preputial Gland		Ectasia	Moderate
		Inflammation	Suppurative, Marked
	[ Ectasia TGLS = 2-6 ]		
	[ Inflammation TGLS = 2-6 ]		
* Seminal Vesicle		Dilatation	Mild
	[ Dilatation TGLS = 8-6 ]		
Skin	Prepuce	Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 1-10 ]		
* Thyroid Gland		Hyperplasia	Cystic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 512

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 706

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H512

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Urethra

Calculus Micro Observation Only

[ Calculus Micro Observation Only TGLS = 4-11 ]

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 513

TRT#: 13

SEX: Male

DAY ON TEST: 713

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H513

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	* Islets, Pancreatic	* Larynx
* Liver	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	

MISSING

\* Lymph Node, Mandibular

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Kidney	Pelvis	Inflammation	Chronic Active, Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Marked
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-9 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland		Ectasia	Moderate
		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-6 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Urinary Bladder	Transit Epithe	Hyperplasia	Marked
		Inflammation	Suppurative, Marked
[ Hyperplasia TGLS = 3-5 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 513

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 713

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H513

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Inflammation TGLS = 3-5 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 515	<b>TRT#:</b> 15	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 199
	<b>DOSE:</b> 5.0MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZO31-H515

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Kidney	* Lymph Node, Mediastinal	* Nose
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**OBSERVATIONS**

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
[ Pigmentation TGLS = 2-4 ]			

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 516

TRT#: 13

SEX: Male

DAY ON TEST: 499

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H516

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Colon
* Intestine Large, Rectum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Intestine Large, Cecum	* Lymph Node, Mediastinal
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AUTO PRECLUDES DIAG.

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

* Bone Marrow	Myeloid Cell	Inflammation	Moderate
* Epididymis		Inflammation	Chronic, Marked
* Kidney		Inflammation	Suppurative, Moderate
* Liver	Hepatocyte	Necrosis	Minimal
* Lung	Alveolus	Pigmentation	Minimal
Lymph Node	Iliac	Hyperplasia	Lymphoid, Marked
	Inguinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 5-11,3-9,6-4 ]			
[ Hyperplasia TGLS = 5-11,3-9,6-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 5-11,3-9,6-4 ]			
Penis		Concretion	Marked
[ Concretion TGLS = 2-10 ]			
* Preputial Gland		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-6 ]			
* Prostate		Inflammation	Suppurative, Mild
* Seminal Vesicle		Dilatation	Moderate

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 516

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 499

**DOSE:** 5.0MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/H516

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Dilatation TGLS = 4-6 ]

\* Urinary Bladder

Inflammation

Suppurative, Marked

[ Inflammation TGLS = 7-5 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 517

TRT#: 13

SEX: Male

DAY ON TEST: 489

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H517

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Epididymis		Inflammation	Chronic, Moderate
* Kidney	Pelvis	Dilatation	Mild
[ Dilatation TGLS = 3-3 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
		Proteinosis	Moderate
[ Alveolar/Bronchiolar Adenoma TGLS = 7-9 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Preputial Gland	Bilateral	Ectasia	Moderate
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 8-11 ]			
Tissue NOS			
Note: TG			
Urethra		Calculus Micro Observation Only	
[ Calculus Micro Observation Only TGLS = 2-10 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 517

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 489

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H517

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 518

TRT#: 15

SEX: Male

DAY ON TEST: 458

DOSE: 5.0MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/H518

**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	* Islets, Pancreatic
* Kidney	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Lung		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild

[ Hyperplasia TGLS = 3-4 ]

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 519

TRT#: 13

SEX: Male

DAY ON TEST: 737

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H519

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	* Islets, Pancreatic
* Kidney	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Larynx

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
Note: TGL3 NOT ON SLIDE3, NOT FOUND ON WET TISS. REVIEW [ Hepatocellular Adenoma TGLS = 4-3 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 7-4,8-4 ] [ Pigmentation TGLS = 6-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Pigmentation TGLS = 5-4 ]			
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Mild
* Preputial Gland	Bilateral	Ectasia	Marked
[ Ectasia TGLS = 1,2-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 519

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 737

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H519

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 520

TRT#: 13

SEX: Male

DAY ON TEST: 459

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H520

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Rectum	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Liver		Hepatocellular Adenoma Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 7-3,9 ]			
* Lung	Alveolus Alveolus	Pigmentation Proteinosis Congestion Hyperplasia Pigmentation	Mild Minimal Mild Lymphoid, Minimal Mild
* Lymph Node, Bronchial			
[ Hyperplasia TGLS = 6-4 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 2,3,4-6 ]			
Skin	Subcut Tiss	Fibrosis	Mild
[ Fibrosis TGLS = 1-10 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 521	<b>TRT#:</b> 15	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 199
	<b>DOSE:</b> 5.0MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZO31-H521

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Kidney	* Nose
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**MISSING**

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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**OBSERVATIONS**

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Preputial Gland	Duct	Concretion	Marked
[ Concretion TGLS = 1-6 ]			

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 522

TRT#: 13

SEX: Male

DAY ON TEST: 428

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H522

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* 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	* Islets, Pancreatic	* Larynx	* Liver
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Bronchial	* Lymph Node, Mandibular
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Epididymis		Inflammation	Suppurative, Moderate
* Kidney	Pelvis	Dilatation	Mild
		Inflammation	Chronic Active, Mild
[ Dilatation TGLS = 5-3 ]			
[ Inflammation TGLS = 4-3 ]			
* Lung	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Iliac	Proteinosis	Mild
Lymph Node		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 6-10 ]			
Penis		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-9 ]			
* Preputial Gland		Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 1-6 ]			
* Seminal Vesicle		Dilatation	Mild
[ Dilatation TGLS = 3-6 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 522

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 428

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H522

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 523

TRT#: 13

SEX: Male

DAY ON TEST: 726

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H523

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	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Inflammation	Chronic, Minimal
* Liver		Abscess	Marked
		Fatty Change	Moderate
		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
* Lung		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Moderate
* Lymph Node, Bronchial		Pigmentation	Mild
* Lymph Node, Mesenteric		Congestion	Moderate
Penis			
Note: TGL "PENIS" IS SKIN OF SCROTUM, SEE "SKIN"			
* Preputial Gland	Bilateral	Ectasia	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 523

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 726

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H523

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Skin [ Inflammation TGLS = 13-12 ]	Prepuce	Inflammation	Suppurative, Marked
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild
Urethra [ Calculus Micro Observation Only TGLS = 4-13 ]		Calculus Micro Observation Only	

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 524

TRT#: 13

SEX: Male

DAY ON TEST: 704

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031-H524

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Gallbladder

OBSERVATIONS

* Liver		Hemangiosarcoma Hepatocellular Carcinoma	
	[ Hemangiosarcoma TGLS = 3-3,10 ] [ Hepatocellular Carcinoma TGLS = 4-3,11 ]		
* Lung	Alveolar Epith	Hyperplasia Inflammation	Minimal Chronic, Mild
	Alveolus	Pigmentation	Moderate
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Minimal Mild
	[ Hyperplasia TGLS = 2-4 ]		
* Preputial Gland	Bilateral	Ectasia	Marked
	[ Ectasia TGLS = 1-6 ]		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 525

TRT#: 13

SEX: Male

DAY ON TEST: 697

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H525

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Thymus
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OBSERVATIONS

* Bone		Fracture Healed	
[ Fracture Healed TGLS = 1-11 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
		Alveolar/Bronchiolar Carcinoma	Multiple
		Inflammation	Chronic, Moderate
	Alveolus	Pigmentation	Moderate
Note: ANAPLASIA,MINIMAL = AB CA DX			
Note: CONSIDERED 3 SEPARATE TUMORS BECAUSE MINIMAL ANAPLASIA			
[ Alveolar/Bronchiolar Adenoma TGLS = 7-4 ]			
[ Alveolar/Bronchiolar Carcinoma TGLS = 8-4,6-9 ]			
* Lymph Node, Bronchial		Pigmentation	Minimal
Penis		Concretion	Minimal
[ Concretion TGLS = 3-10 ]			
* Preputial Gland	Bilateral	Ectasia	Marked
[ Ectasia TGLS = 2-6 ]			
* Spleen		Thrombosis	
[ Thrombosis TGLS = 4-3 ]			
* Stomach, Glandular		Inflammation	Suppurative, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 525

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 697

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H525

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 526

TRT#: 13

SEX: Male

DAY ON TEST: 271

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H526

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Gallbladder
* Heart	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Pituitary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

* Lymph Node, Mediastinal	* Parathyroid Gland	* Prostate
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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**

* Liver [ Infarct TGLS = 4-9 ]		Infarct	Marked
* Lung	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
* Spleen [ Hemangiosarcoma TGLS = 2-3 ]		Hemangiosarcoma	
Urethra		Calculus Micro Observation Only	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 527

TRT#: 13

SEX: Male

DAY ON TEST: 659

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H527

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Heart
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Pigmentation	Mild
Penis		Concretion	Moderate
	[ Concretion TGLS = 3-11 ]		
* Preputial Gland		Ectasia	Moderate
	[ Ectasia TGLS = 2-6 ]		
* Seminal Vesicle		Dilatation	Moderate
	[ Dilatation TGLS = 4-6 ]		
Skin		Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 1-10 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 528

TRT#: 13

SEX: Male

DAY ON TEST: 422

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H528

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                   |                     |                   |                 |
|-------------------|---------------------|-------------------|-----------------|
| * Adrenal Cortex  | * Adrenal Medulla   | * Bone            | * Brain         |
| * Epididymis      | * Esophagus         | * Heart           | * Larynx        |
| * Mammary Gland   | * Parathyroid Gland | * Pituitary Gland | * Prostate      |
| * Salivary Glands | * Seminal Vesicle   | * Testes          | * Thyroid Gland |
| * Trachea         |                     |                   |                 |

MISSING

- |                      |                          |            |
|----------------------|--------------------------|------------|
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Pancreas |
|----------------------|--------------------------|------------|

AUTO PRECLUDES DIAG.

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Bone Marrow             | * Gallbladder               | * 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 | * Nose                     |
| * Stomach, Forestomach    | * Stomach, Glandular        | * Urinary Bladder        |                            |

OBSERVATIONS

- |                                      |          |                     |        |
|--------------------------------------|----------|---------------------|--------|
| * Liver                              |          | Histiocytic Sarcoma |        |
| [ Histiocytic Sarcoma TGLS = 2,3-3 ] |          |                     |        |
| * Lung                               |          | Histiocytic Sarcoma |        |
|                                      | Alveolus | Pigmentation        | Mild   |
|                                      | Alveolus | Proteinosis         | Marked |
| * Lymph Node, Mediastinal            |          | Pigmentation        | Mild   |
| * Preputial Gland                    |          | Ectasia             | Mild   |
| * Spleen                             |          | Histiocytic Sarcoma |        |
| [ Histiocytic Sarcoma TGLS = 1-3 ]   |          |                     |        |
| * Thymus                             |          | Histiocytic Sarcoma |        |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 529

TRT#: 13

SEX: Male

DAY ON TEST: 601

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H529

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
Penis	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3-3,9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Pigmentation	Moderate
[ Pigmentation TGLS = 4-4 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
Skin		Cyst Epithelial Inclusion	
[ Cyst Epithelial Inclusion TGLS = 1-10 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 530

TRT#: 13

SEX: Male

DAY ON TEST: 738

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H530

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
	[ Proteinosis TGLS = 5-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Moderate
	[ Hyperplasia TGLS = 4-4 ]		
	[ Pigmentation TGLS = 4-4 ]		
* Preputial Gland		Ectasia	Marked
		Inflammation	Chronic, Marked
	[ Ectasia TGLS = 2-6 ]		
	[ Inflammation TGLS = 1-9 ]		
Skin		Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 3-9 ]		
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 531

TRT#: 15

SEX: Male

DAY ON TEST: 670

DOSE: 5.0MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/H531

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	
	Alveolus	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Minimal
		Pigmentation	Mild
		Proteinosis	Minimal
	[ Alveolar/Bronchiolar Adenoma TGLS = 7-9 ]		
Lymph Node	Inguinal	Hyperplasia	Lymphoid, Marked
	[ Hyperplasia TGLS = 3-10,6-4 ]		
* Lymph Node, Bronchial		Pigmentation	Mild
	[ Pigmentation TGLS = 6-4 ]		
Penis		Inflammation	Suppurative, Moderate
	[ Inflammation TGLS = 1-12 ]		
* Preputial Gland		Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 4-6 ]		
* Seminal Vesicle		Dilatation	Mild
Skin	Prepuce	Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 2-11 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 531

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 670

**DOSE:** 5.0MG/M3 LUNGTX

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H531

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thyroid Gland

Hyperplasia

Cystic, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 532

TRT#: 15

SEX: Male

DAY ON TEST: 580

DOSE: 5.0MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/H532

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 6-4 ]			
* Lymph Node, Bronchial		Pigmentation	Minimal
[ Pigmentation TGLS = 5-4 ]			
* Preputial Gland		Ectasia	Mild
		Inflammation	Chronic, Moderate
[ Inflammation TGLS = 1-6 ]			
* Seminal Vesicle		Dilatation	Mild
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 533

TRT#: 13

SEX: Male

DAY ON TEST: 737

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: -MZ031-H533

**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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder			

**MISSING**

\* Lymph Node, Mediastinal

**INSUFFICIENT TISSUE**

\* Thymus

**OBSERVATIONS**

Harderian Gland [ Hyperplasia TGLS = 7-9 ]		Hyperplasia	Moderate
* Liver [ Hepatocellular Adenoma TGLS = 4-10 ] [ Hepatocellular Carcinoma TGLS = 3-11 ]		Hepatocellular Adenoma Hepatocellular Carcinoma	
* Lung [ Inflammation TGLS = 6-4 ] [ Pigmentation TGLS = 6-4 ]	Alveolar Epith  Alveolus Alveolus	Hyperplasia Inflammation Pigmentation Proteinosis	Minimal Chronic, Mild Moderate Minimal
* Lymph Node, Bronchial [ Hyperplasia TGLS = 5-4 ] [ Pigmentation TGLS = 5-4 ]		Hyperplasia Pigmentation	Lymphoid, Minimal Mild

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 533

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 737

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** -MZ031-H533

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Lymph Node, Mesenteric  
[ Hyperplasia TGLS = 5-4 ]

Hyperplasia

Lymphoid, Mild

\* Preputial Gland  
[ Ectasia TGLS = 1,2-6 ]

Ectasia

Moderate

\* Thyroid Gland

Hyperplasia

Cystic, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 534

TRT#: 15

SEX: Male

DAY ON TEST: 431

DOSE: 5.0MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/H534

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 3-3 ]			
* Lung	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Inguinal	Proteinosis	Mild
Lymph Node		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 2-11 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
* Preputial Gland	Bilateral	Ectasia	Marked
* Spleen		Hematopoietic Cell Proliferation	Mild
Tissue NOS		Necrosis	Marked
[ Necrosis TGLS = 1-10 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 536

TRT#: 13

SEX: Male

DAY ON TEST: 574

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H536

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Gallbladder		Inflammation	Chronic, Moderate
[ Inflammation TGLS = 9-3 ]			
* Liver		Hepatocellular Carcinoma	Multiple
[ Hepatocellular Carcinoma TGLS = 7,8-3,9,10 ]		Infarct	Marked
[ Infarct TGLS = 8-3,10 ]			
* Lung		Hepatocellular Carcinoma	Metastatic (Uncertain Primary Site)
	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Pigmentation TGLS = 12-4 ]		Proteinosis	Moderate
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 10-11 ]	Iliac	Pigmentation	Minimal
[ Pigmentation TGLS = 10-11 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 10-11 ]			
Penis		Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 4-12 ]			
* Preputial Gland		Ectasia	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 536

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 574

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H536

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Ectasia TGLS = 1-6 ]

\* Spleen

\* Thyroid Gland

Urethra

[ Calculus Micro Observation Only TGLS = 5-13 ]

Inflammation

Hematopoietic Cell Proliferation

Hyperplasia

Calculus Micro Observation Only

Chronic, Moderate

Mild

Cystic, Mild

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 537

TRT#: 13

SEX: Male

DAY ON TEST: 726

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H537

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mediastinal	* Thymus
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OBSERVATIONS

* Liver		Hemangiosarcoma Infarct	Moderate
[ Hemangiosarcoma TGLS = 6-10 ]			
* Lung	Alveolar Epith	Hyperplasia Inflammation	Minimal Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
[ Pigmentation TGLS = 9-4 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
* Lymph Node, Mesenteric		Hematopoietic Cell Proliferation	Mild
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Mild
Penis		Concretion	Minimal
[ Concretion TGLS = 5-9 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Ectasia Inflammation	Mild Chronic Active, Marked
[ Inflammation TGLS = 4-6 ]			
Skin		Inflammation	Suppurative, Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 537	<b>TRT#:</b> 13	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 726
	<b>DOSE:</b> 5.0MG/M3	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> MZ031/H537

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Inflammation TGLS = 1,2,3-11,12,13 ]

* Thyroid Gland	Hyperplasia	Cystic, Mild
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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 538

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 199

**DOSE:** 5.0MG/M3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-H538

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Kidney

\* Nose

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**MISSING**

\* Lymph Node, Mediastinal

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**OBSERVATIONS**

\* Lung

Alveolus

Pigmentation

Minimal

\* Lymph Node, Bronchial

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 539

TRT#: 13

SEX: Male

DAY ON TEST: 738

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H539

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	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Intestine Large, Cecum		Hyperplasia	Lymphoid, Mild
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 6-4 ]			
[ Pigmentation TGLS = 6-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Moderate
[ Pigmentation TGLS = 5-4 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1,2-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Urinary Bladder		Calculus Micro Observation Only	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 540

TRT#: 13

SEX: Male

DAY ON TEST: 501

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H540

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Epididymis	* Esophagus	* Heart	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Thymus	
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AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 9,10-3 ]			
* Liver	Hepatocyte	Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 6-14 ]		Necrosis	Mild
[ Necrosis TGLS = 7-3 ]			
* Lung	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
Lymph Node	Iliac	Hyperplasia	Lymphoid, Mild
	Inguinal	Hyperplasia	Lymphoid, Mild
	Iliac	Pigmentation	Minimal
[ Hyperplasia TGLS = 3-11,8-10 ]			
[ Hyperplasia TGLS = 3-11,8-10 ]			
[ Pigmentation TGLS = 8-10 ]			
* Lymph Node, Bronchial		Edema	Mild
		Pigmentation	Mild
[ Edema TGLS = 11-4 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 540	<b>TRT#:</b> 13 <b>DOSE:</b> 5.0MG/M3	<b>SEX:</b> Male <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 501 <b>HISTO:</b> MZ031/H540
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Pigmentation TGLS = 8-10 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1,2-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 12-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
Ureter		Inflammation	Chronic Active, Marked
[ Inflammation TGLS = 5-12,13 ]			
* Urinary Bladder		Inflammation	Chronic Active, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 541

TRT#: 15

SEX: Male

DAY ON TEST: 571

DOSE: 5.0MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/H541

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Intestine Large, Cecum	* Intestine Large, Rectum	* Thymus
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney	Pelvis	Inflammation	Suppurative, Moderate
		Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 4,5-3,6-3,11 ]		
	[ Inflammation TGLS = 4,5-3,6-3,11 ]		
* Lung	Alveolar Epith	Alveolar/Bronchiolar Carcinoma	
	Alveolus	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 9-12 ]	Proteinosis	Moderate
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Hyperplasia TGLS = 8-4 ]		
	[ Pigmentation TGLS = 8-4 ]		
* Lymph Node, Mesenteric		Hematopoietic Cell Proliferation	Mild
* Preputial Gland	Bilateral	Ectasia	Moderate
		Inflammation	Chronic, Minimal
* Seminal Vesicle		Dilatation	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 541	<b>TRT#:</b> 15	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 571
	<b>DOSE:</b> 5.0MG/M3 LUNGTX	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> MZ031/H541

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Dilatation TGLS = 2-6 ]		
* Spleen	Hematopoietic Cell Proliferation	Marked
[ Hematopoietic Cell Proliferation TGLS = 3-3 ]		
Ureter	Inflammation	Suppurative, Marked
[ Inflammation TGLS = 7-6,9,10 ]		
Urethra	Calculus Micro Observation Only	
[ Calculus Micro Observation Only TGLS = 10-14 ]		
* Urinary Bladder	Inflammation	Suppurative, Marked

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 542

TRT#: 13

SEX: Male

DAY ON TEST: 737

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H542

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	* Islets, Pancreatic
* Kidney	* Larynx	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular	* Thymus
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INSUFFICIENT TISSUE

* Lymph Node, Mediastinal	* Pituitary Gland
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OBSERVATIONS

* Liver	Hepatocellular Adenoma	
Note: 2 TGL NODULES NOT DISTINCT, CONSIDERED ONE		
[ Hepatocellular Adenoma TGLS = 5,6-9 ]		
* Lung	Alveolar/Bronchiolar Adenoma	
	Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Minimal
	Alveolus	Chronic, Mild
	Alveolus	Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 10-11 ]	Minimal
	[ Alveolar/Bronchiolar Carcinoma TGLS = 9-4,12 ]	
* Lymph Node, Bronchial	Hyperplasia	Lymphoid, Mild
	Inflammation	Mild
	Pigmentation	
	Proteinosis	
	[ Hyperplasia TGLS = 11-4 ]	
	[ Pigmentation TGLS = 11-4 ]	
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Mild
	[ Hyperplasia TGLS = 11-4 ]	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 542	<b>TRT#:</b> 13 <b>DOSE:</b> 5.0MG/M3	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 737 <b>HISTO:</b> MZ031-H542
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Preputial Gland [ Ectasia TGLS = 1,2-6 ]	Bilateral	Ectasia	Moderate
* Seminal Vesicle [ Cyst TGLS = 3-6,4-13 ]		Cyst	
* Testes	Germinal Epith	Degeneration	Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 543

TRT#: 13

SEX: Male

DAY ON TEST: 670

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H543

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
[ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
[ Hyperplasia TGLS = 3-4 ]			
[ Pigmentation TGLS = 3-4 ]			
* Lymph Node, Mesenteric		Congestion	Moderate
* Preputial Gland	Bilateral	Ectasia	Mild
		Inflammation	Chronic, Mild
[ Ectasia TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 544

TRT#: 13

SEX: Male

DAY ON TEST: 559

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H544

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, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Intestine Small, Ileum	* Lymph Node, Mediastinal	* Thymus
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AUTO PRECLUDES DIAG.

\* Gallbladder

OBSERVATIONS

* Liver		Developmental Malformation Hepatocellular Carcinoma	
	[ Developmental Malformation TGLS = 3-9 ]		
	[ Hepatocellular Carcinoma TGLS = 4,5-3,10,11 ]		
* Lung	Alveolar Epith Alveolus Alveolus	Hepatocellular Carcinoma Hyperplasia Pigmentation Proteinosis Pigmentation Ectasia Inflammation	Metastatic (Uncertain Primary Site) Minimal Minimal Mild Mild Moderate Suppurative, Marked
* Lymph Node, Bronchial			
* Preputial Gland			
	[ Ectasia TGLS = 1-6 ]		
	[ Inflammation TGLS = 1-6 ]		
* Spleen		Hyperplasia	Lymphoid, Moderate
	[ Hyperplasia TGLS = 2-3 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 544

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 559

**DOSE:** 5.0MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/H544

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: BRONCH LN=MARKED CONGESTION, NOT SIGNIF. LESION

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 545

TRT#: 15

SEX: Male

DAY ON TEST: 676

DOSE: 5.0MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/H545

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	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Prostate	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder			

MISSING

* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Kidney [ Dilatation TGLS = 4-3 ]	Pelvis	Dilatation	Mild
* Lung [ Pigmentation TGLS = 7-4 ]	Alveolar Epith	Hyperplasia Inflammation Pigmentation Proteinosis	Minimal Chronic, Minimal Mild Mild
* Lymph Node, Bronchial [ Pigmentation TGLS = 6-4 ]	Alveolus Alveolus	Pigmentation	Moderate
Penis [ Inflammation TGLS = 1-9 ]		Inflammation	Suppurative, Moderate
* Preputial Gland [ Ectasia TGLS = 2-6 ]	Bilateral	Ectasia	Moderate
* Seminal Vesicle [ Dilatation TGLS = 3-6,10 ]		Dilatation	Moderate
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 546

TRT#: 13

SEX: Male

DAY ON TEST: 224

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H546

**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
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea		

**MISSING**

* Epididymis	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland
* Prostate	* Thymus		

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Moderate
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Inflammation	Suppurative, Mild
* Liver	Hepatocyte	Necrosis	Minimal
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Preputial Gland		Ectasia	Moderate
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Urinary Bladder	Transit Epithe	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 547

TRT#: 13

SEX: Male

DAY ON TEST: 659

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H547

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Epididymis  
\* Lymph Node, Mandibular  
\* Pancreas  
\* Salivary Glands  
\* Thyroid Gland

\* Adrenal Medulla  
\* Esophagus  
\* Lymph Node, Mediastinal  
\* Parathyroid Gland  
\* Seminal Vesicle  
\* Trachea

\* Bone  
\* Islets, Pancreatic  
\* Mammary Gland  
\* Pituitary Gland  
\* Testes

\* Brain  
\* Larynx  
\* Nose  
\* Prostate  
\* Thymus

AUTO PRECLUDES DIAG.

\* Gallbladder  
\* Intestine Small, Ileum  
\* Urinary Bladder

\* Intestine Large, Colon  
\* Intestine Small, Jejunum

\* Intestine Large, Rectum  
\* Stomach, Forestomach

\* Intestine Small, Duodenum  
\* Stomach, Glandular

OBSERVATIONS

\* Bone Marrow  
\* Heart  
\* Intestine Large, Cecum  
    [ Lymphoma Malignant TGLS = 4-9 ]  
\* Kidney  
\* Liver  
\* Lung  
\* Lymph Node, Bronchial  
\* Lymph Node, Mesenteric  
    [ Inflammation TGLS = 3-5 ]  
\* Preputial Gland  
    [ Ectasia TGLS = 1-6 ]  
\* Spleen  
    [ Hematopoietic Cell Proliferation TGLS = 2-3 ]

Erythroid Cell  
  
  
  
  
  
  
  
  
  
Alveolus

Hyperplasia  
Inflammation  
Lymphoma Malignant  
  
Inflammation  
Hematopoietic Cell Proliferation  
Inflammation  
Pigmentation  
Pigmentation  
Inflammation  
  
Ectasia  
  
Hematopoietic Cell Proliferation

Marked  
Suppurative, Mild  
  
Suppurative, Moderate  
Minimal  
Chronic, Minimal  
Mild  
Mild  
Suppurative, Mild  
  
Marked  
  
Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 548

TRT#: 13

SEX: Male

DAY ON TEST: 739

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H548

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 Small, Duodenum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mediastinal	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Trachea	* Urinary Bladder

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Intestine Small, Ileum		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-12 ]			
* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	Minimal
	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Alveolar/Bronchiolar Adenoma TGLS = 15-11 ]		Proteinosis	Minimal
[ Inflammation TGLS = 14-4 ]			
[ Pigmentation TGLS = 14-4 ]			
Lymph Node	Axillary	Lymphoma Malignant	
	Iliac	Lymphoma Malignant	
	Pancreatic	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 16-4,10-14,6-5,5-5,3-6,11-13,4-15 ]			
[ Lymphoma Malignant TGLS = 16-4,10-14,6-5,5-5,3-6,11-13,4-15 ]			
[ Lymphoma Malignant TGLS = 16-4,10-14,6-5,5-5,3-6,11-13,4-15 ]			
[ Lymphoma Malignant TGLS = 16-4,10-14,6-5,5-5,3-6,11-13,4-15 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 548	<b>TRT#:</b> 13 <b>DOSE:</b> 5.0MG/M3	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 739 <b>HISTO:</b> MZ031-H548
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Lymphoma Malignant TGLS = 16-4,10-14,6-5,5-5,3-6,11-13,4-15 ]	Pigmentation	Mild
* Lymph Node, Mandibular [ Lymphoma Malignant TGLS = 16-4,10-14,6-5,5-5,3-6,11-13,4-15 ]	Lymphoma Malignant	
* Lymph Node, Mesenteric [ Lymphoma Malignant TGLS = 16-4,10-14,6-5,5-5,3-6,11-13,4-15 ]	Lymphoma Malignant	
* Preputial Gland [ Inflammation TGLS = 1,2-6 ]	Inflammation	Chronic, Moderate
* Spleen [ Lymphoma Malignant TGLS = 7,8-9 ]	Lymphoma Malignant	
* Thymus Note: TGL13 IS ACTUALLY THYMUS, NOT MED. LN [ Lymphoma Malignant TGLS = 13-2 ]	Lymphoma Malignant	
* Thyroid Gland	Hyperplasia	Cystic, Minimal

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PRIMARY CAUSE OF DEATH -

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Animal Note: TGL"MED.LN" IS THYMUS N.B.

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 549

TRT#: 13

SEX: Male

DAY ON TEST: 597

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H549

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Intestine Large, Cecum	* Lymph Node, Mediastinal
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INSUFFICIENT TISSUE

\* Thymus

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Kidney		Inflammation	Suppurative, Minimal
* Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 9-9 ]		
* Lung	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Pigmentation	Mild
	[ Pigmentation TGLS = 10-4 ]		
Penis		Inflammation	Mild
	[ Inflammation TGLS = 3-10 ]		
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 1-6 ]		
Skin		Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 2-11 ]		
* Spleen		Hematopoietic Cell Proliferation	Moderate
	[ Hematopoietic Cell Proliferation TGLS = 4-3 ]		
* Thyroid Gland		Hyperplasia	Cystic, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 549

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 597

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H549

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Ureter

Concretion

Moderate

[ Concretion TGLS = 5-12 ]

\* Urinary Bladder

Inflammation

Suppurative, Marked

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 550

TRT#: 13

SEX: Male

DAY ON TEST: 737

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H550

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Urinary Bladder	

MISSING

* Intestine Large, Rectum	* Parathyroid Gland	* Trachea
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INSUFFICIENT TISSUE

* Lymph Node, Mediastinal
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OBSERVATIONS

Harderian Gland [ Adenoma TGLS = 6-9 ]		Adenoma	
* Lung	Alveolar Epith	Hyperplasia Inflammation Pigmentation	Minimal Chronic, Minimal Mild
	Alveolus		
	[ Inflammation TGLS = 4-4 ]		
	[ Pigmentation TGLS = 4-4 ]		
* Lymph Node, Bronchial [ Pigmentation TGLS = 5-4 ]		Pigmentation	Mild
* Nose	Respirat Epith	Inflammation Ectasia	Suppurative, Minimal Moderate
* Preputial Gland [ Ectasia TGLS = 1,2-6 ]			
* Stomach, Forestomach		Hyperkeratosis	Mild
* Testes [ Atrophy TGLS = 3-6 ]		Atrophy	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 551

TRT#: 15

SEX: Male

DAY ON TEST: 458

DOSE: 5.0MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/H551

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Cortex
- \* Brain
- \* Heart
- \* Intestine Small, Duodenum
- \* Kidney
- \* Lymph Node, Mesenteric
- \* Pituitary Gland
- \* Spleen
- \* Thymus

- \* Adrenal Medulla
- \* Epididymis
- \* Intestine Large, Cecum
- \* Intestine Small, Ileum
- \* Larynx
- \* Mammary Gland
- \* Prostate
- \* Stomach, Forestomach
- \* Thyroid Gland

- \* Bone
- \* Esophagus
- \* Intestine Large, Colon
- \* Intestine Small, Jejunum
- \* Liver
- \* Nose
- \* Salivary Glands
- \* Stomach, Glandular
- \* Trachea

- \* Bone Marrow
- \* Gallbladder
- \* Intestine Large, Rectum
- \* Islets, Pancreatic
- \* Lymph Node, Mandibular
- \* Pancreas
- \* Seminal Vesicle
- \* Testes
- \* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

\* Parathyroid Gland

OBSERVATIONS

- \* Lung
- \* Lymph Node, Bronchial
- \* Preputial Gland

Alveolus  
Alveolus

- Inflammation
- Pigmentation
- Proteinosis
- Pigmentation
- Ectasia

- Chronic, Mild
- Mild
- Minimal
- Minimal
- Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 552

TRT#: 13

SEX: Male

DAY ON TEST: 739

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H552

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	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-3 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Moderate
[ Inflammation TGLS = 4-4 ]			
[ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
[ Hyperplasia TGLS = 3-4 ]			
[ Pigmentation TGLS = 3-4 ]			
* Nose	Respirat Epith	Degeneration	Minimal
* Preputial Gland	Bilateral	Ectasia	Marked
[ Ectasia TGLS = 1-6 ]			
* Spleen		Hyperplasia	Lymphoid, Mild
* Thyroid Gland	Follicular Cel	Adenoma	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 553

TRT#: 13

SEX: Male

DAY ON TEST: 698

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H553

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Gallbladder	* Lymph Node, Mediastinal
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OBSERVATIONS

* Heart		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 7-3 ]			
* Liver		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 5-3,9,10 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolus	Inflammation	Chronic, Minimal
		Pigmentation	Mild
[ Alveolar/Bronchiolar Carcinoma TGLS = 9,10,11-4,12 ]			
[ Pigmentation TGLS = 13-4 ]			
Lymph Node	Axillary	Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 4-13 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 12-4 ]			
* Preputial Gland	Bilateral	Ectasia	Marked
[ Ectasia TGLS = 1-6 ]			
* Spleen		Hemangioma	
		Hematopoietic Cell Proliferation	Moderate
		Thrombosis	
[ Thrombosis TGLS = 2-11 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 553

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 698

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H553

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus	Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 8-2 ]		
Tissue NOS	Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
	Hemorrhage	Moderate
	Inflammation	Suppurative, Mild
[ Alveolar/Bronchiolar Carcinoma TGLS = 14-15,16 ]		
[ Hemorrhage TGLS = 3-14 ]		
[ Inflammation TGLS = 3-14 ]		

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 554

TRT#: 13

SEX: Male

DAY ON TEST: 716

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H554

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex		Adenoma	
		Cyst	
* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Mild
	[ Pigmentation TGLS = 6-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Hyperplasia TGLS = 5-4 ]		
	[ Pigmentation TGLS = 5-4 ]		
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 3-6 ]		
Skin		Inflammation	Suppurative, Marked
	[ Inflammation TGLS = 1,2-9,10 ]		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 555

TRT#: 13

SEX: Male

DAY ON TEST: 737

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H555

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	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyms	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver			
Note: TGL 3 = NCL			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 6-4 ]			
[ Pigmentation TGLS = 6-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Pigmentation TGLS = 5-4 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
[ Ectasia TGLS = 1,2-6 ]			
Tooth		Dysplasia	Moderate
		Odontoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 556

TRT#: 13

SEX: Male

DAY ON TEST: 739

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H556

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 Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia Inflammation	Minimal Chronic, Minimal
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Minimal
	[ Inflammation TGLS = 5-4 ]		
	[ Pigmentation TGLS = 5-4 ]		
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Moderate
	[ Hyperplasia TGLS = 6-4 ]		
	[ Pigmentation TGLS = 6-4 ]		
* Preputial Gland	Bilateral	Ectasia	Moderate
	[ Ectasia TGLS = 1-6 ]		
* Thyroid Gland	Follicular Cel	Adenoma	
	[ Adenoma TGLS = 4-2 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 557

TRT#: 15

SEX: Male

DAY ON TEST: 317

DOSE: 5.0MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/H557

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Pituitary Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Adrenal Medulla	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Parathyroid Gland
* Prostate			

OBSERVATIONS

* Lung	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Mild
Skin		Alopecia	Mild
	[ Alopecia TGLS = 1-10 ]		
* Spleen		Hematopoietic Cell Proliferation	Marked
	[ Hematopoietic Cell Proliferation TGLS = 5-3 ]		
Tissue NOS		Sarcoma	
	[ Sarcoma TGLS = 2-9 ]		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 558

TRT#: 13

SEX: Male

DAY ON TEST: 714

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZO31-H558

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Intestine Small, Ileum	* Lymph Node, Mediastinal
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OBSERVATIONS

Eye			
Note: TGL"EYE"MASS IS HARDERIAN GL ADENOMA, N.B.			
Harderian Gland		Adenoma	
[ Adenoma TGLS = 1-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
[ Hyperplasia TGLS = 5-4 ]			
[ Pigmentation TGLS = 5-4 ]			
* Preputial Gland	Bilateral	Ectasia	Mild
[ Ectasia TGLS = 2-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 559

TRT#: 13

SEX: Male

DAY ON TEST: 635

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H559

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea	* Urinary Bladder	

MISSING

* Pituitary Gland	* Thymus
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OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 6-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Moderate
[ Hyperplasia TGLS = 5-4 ]			
[ Pigmentation TGLS = 5-4 ]			
* Lymph Node, Mediastinal		Congestion	Mild
* Lymph Node, Mesenteric		Hematopoietic Cell Proliferation	Minimal
Penis		Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 2-9 ]			
* Preputial Gland		Ectasia	Mild
		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 3-6 ]			
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-6,10 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 559

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 635

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H559

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Spleen	Hematopoietic Cell Proliferation	Mild
* Thyroid Gland	Hyperplasia	Cystic, Minimal
Urethra	Concretion	Marked
[ Concretion TGLS = 7-11 ]		

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 560

TRT#: 13

SEX: Male

DAY ON TEST: 612

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H560

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* 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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Parathyroid Gland
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INSUFFICIENT TISSUE

* Bone	* Lymph Node, Bronchial
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OBSERVATIONS

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Moderate
[ Proteinosis TGLS = 4-4 ]			
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
	Inguinal	Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 1-9,3-10,11 ]			
[ Hyperplasia TGLS = 1-9,3-10,11 ]			
* Preputial Gland	Bilateral	Ectasia	Moderate
Note: PREPUTIL MASS[TGL5] IS SKIN INFLAMMATION			
[ Ectasia TGLS = 2-6 ]			
Skin	Prepuce	Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 5-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Marked

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 81

TRT#: 2

SEX: Female

DAY ON TEST: 510

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E081

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Liver	Hepatocyte	Vacuolization Cytoplasmic	Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate

[ Hyperplasia TGLS = 1-6,9 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 82

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E082

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Liver		Basophilic Focus	
		Hepatocellular Adenoma	
		Inflammation	Chronic, Minimal
		[ Hepatocellular Adenoma TGLS = 3,5-9,11 ]	
		[ Inflammation TGLS = 4-10 ]	
* Lung		Inflammation	Chronic, Minimal
* Nose	Respirat Epith	Degeneration	Mild
* Thymus		Histiocytic Sarcoma	
		[ Histiocytic Sarcoma TGLS = 6-2 ]	
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Marked
		[ Hyperplasia TGLS = 2-6,12 ]	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 83

TRT#: 2

SEX: Female

DAY ON TEST: 599

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E083

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

INSUFFICIENT TISSUE

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Malignant	
[ Pheochromocytoma Malignant TGLS = 1-9 ]			
* Kidney			
Note: TGL "KIDNEY" IS ADRENAL CA GROWING INTO KD, SEE ADRENAL			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Nose	Respirat Epith	Degeneration	Minimal
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 85	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 200
	<b>DOSE:</b> 0 MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZ031-E085

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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<b>NORMAL</b>			
* Kidney	* Lung	* Lymph Node, Bronchial	

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<b>MISSING</b>			
* Lymph Node, Mediastinal			

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<b>OBSERVATIONS</b>			
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal

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

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 86

TRT#: 2

SEX: Female

DAY ON TEST: 117

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E086

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

* Esophagus	* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Parathyroid Gland
* Thyroid Gland			

**AUTO PRECLUDES DIAG.**

\* Nose

**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

**OBSERVATIONS**

* Ovary	Teratoma Benign		
[ Teratoma Benign TGLS = 1-6,10 ]			
* Spleen	Hematopoietic Cell Proliferation	Moderate	
[ Hematopoietic Cell Proliferation TGLS = 2-3,9 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06  
Test Type: CHRONIC  
Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
Test Compound: Nickel (II) oxide  
CAS Number: 1313-99-1

Date Report Requested: 10/23/2014  
Time Report Requested: 00:25:46  
First Dose M/F: NA / NA  
Lab: LITRI

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<b>ANIMAL ID:</b> 87	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 229
	<b>DOSE:</b> 0 MG/M3 LUNGTX	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> MZ031/E087

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

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**MISSING**

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

* Nose	Olfactory Epi	Degeneration	Minimal
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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 89

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E089

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Kidney	* Larynx	* Mammary Gland	* Nose
* Pancreas	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Islets, Pancreatic	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Spindle Cell	Hyperplasia	Moderate
* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Intestine Small, Ileum		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 1-9,10 ]			
* Liver		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 6-3,11 ]			
* Lung		Lymphoma Malignant	
Lymph Node	Iliac	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 2-5,8-2,15,7-12,5-13,10-4 ]			
[ Lymphoma Malignant TGLS = 2-5,8-2,15,7-12,5-13,10-4 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 2-5,8-2,15,7-12,5-13,10-4 ]			
* Lymph Node, Mandibular		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 2-5,8-2,15,7-12,5-13,10-4 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 2-5,8-2,15,7-12,5-13,10-4 ]			
* Lymph Node, Mesenteric		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 2-5,7-12,5-13,10-4,8-2,15 ]			
Mesentery		Lymphoma Malignant	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 89	<b>TRT#:</b> 2 <b>DOSE:</b> 0 MG/M3	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 729 <b>HISTO:</b> MZ031/E089
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
* Ovary		Thecoma Benign	
* Spleen		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 3-3 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 4-6,14 ]			

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

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 90

TRT#: 2

SEX: Female

DAY ON TEST: 638

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E090

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Liver	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Uterus			

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Adrenal Cortex	Spindle Cell	Hyperplasia	Mild
* Bone Marrow		Myelofibrosis	Minimal
* Kidney	Glomerulus	Thrombosis	Mild
* Lung		Lymphoma Malignant	
Lymph Node	Iliac	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-9,3-10,2-6,6-4 ]		
	[ Lymphoma Malignant TGLS = 4-9,3-10,2-6,6-4 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-9,3-10,2-6,6-4 ]		
* Lymph Node, Mandibular		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-9,3-10,2-6,6-4 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-9,3-10,2-6,6-4 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Moderate
	Respirat Epith	Metaplasia	Squamous, Mild
	Capillary	Thrombosis	Marked
* Ovary	Rete Ovarii	Thrombosis	Marked
* Salivary Glands		Lymphoma Malignant	
Skin	Subcut Tiss	Edema	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 90	<b>TRT#:</b> 2	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 638
	<b>DOSE:</b> 0 MG/M3	<b>DISP:</b> Moribund Sacrifice	<b>HISTO:</b> MZ031/E090

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Edema TGLS = 1-11 ]

* Spleen	Hyperplasia	Lymphoid, Moderate
* Thymus	Lymphoma Malignant	
* Urinary Bladder	Lymphoma Malignant	

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 91

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E091

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	* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Clitoral Gland

OBSERVATIONS

* Adrenal Cortex	Spindle Cell	Hyperplasia	Mild
* Kidney		Lymphoma Malignant	
* Liver		Hepatocellular Adenoma	
		Lymphoma Malignant	
	[ Hepatocellular Adenoma TGLS = 3-11 ]		
* Lung		Lymphoma Malignant	
Lymph Node	Iliac	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 2-9,1-10,4-4 ]		
	[ Lymphoma Malignant TGLS = 2-9,1-10,4-4 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 2-9,1-10,4-4 ]		
* Lymph Node, Mandibular		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 2-9,1-10,4-4 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 2-9,1-10,4-4 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Minimal
* Spleen		Lymphoma Malignant	
* Thyroid Gland		Hyperplasia	Cystic, Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 91

**TRT#:** 2  
**DOSE:** 0 MG/M3

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 732  
**HISTO:** MZ031/E091

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 93

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E093

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 1-9 ]			
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
		Inflammation	Chronic, Mild
		Pigmentation	Hemosiderin, Minimal
* Nose	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 94

TRT#: 2

SEX: Female

DAY ON TEST: 736

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E094

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 95

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 14

**DOSE:** 0 MG/M3

**DISP:** Accidentally Killed

**HISTO:** MZ031/E095

**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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

* Clitoral Gland	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Parathyroid Gland
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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 96

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E096

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

Ear		Basosquamous Tumor Malignant	
[ Basosquamous Tumor Malignant TGLS = 2-9,14 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
[ Basosquamous Tumor Malignant TGLS = 10-4,13 ]		Basosquamous Tumor Malignant	Metastatic (Ear)
Lymph Node	Iliac	Lymphoma Malignant	
	Inguinal	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 8-2,9-4,4-5,1-6,5-12,6-11,7-10 ]			
[ Lymphoma Malignant TGLS = 8-2,9-4,4-5,1-6,5-12,6-11,7-10 ]			
[ Lymphoma Malignant TGLS = 8-2,9-4,4-5,1-6,5-12,6-11,7-10 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 8-2,9-4,4-5,1-6,5-12,6-11,7-10 ]			
* Lymph Node, Mandibular		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 8-2,9-4,4-5,1-6,5-12,6-11,7-10 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 8-2,9-4,4-5,1-6,5-12,6-11,7-10 ]			
* Lymph Node, Mesenteric		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 8-2,9-4,4-5,1-6,5-12,6-11,7-10 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 96

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 728

**DOSE:** 0 MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/E096

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hematopoietic Cell Proliferation TGLS = 3-3 ]

\* Thymus

Lymphoma Malignant

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 97

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E097

**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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

**INSUFFICIENT TISSUE**

\* Clitoral Gland

**OBSERVATIONS**

* Bone		Hyperostosis	Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 1-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 99

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E099

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* 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	* Islets, Pancreatic	* Larynx
* Lung	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Brain [ Carcinoma TGLS = 6-1 ]		Carcinoma	Metastatic (Uncertain Primary Site)
* Kidney		Metaplasia	Osseous, Minimal
* Liver [ Hepatocellular Carcinoma TGLS = 2-9 ]		Hepatocellular Carcinoma	
* Lymph Node, Mandibular [ Hyperplasia TGLS = 1-6 ]		Hyperplasia	Lymphoid, Marked
* Pituitary Gland [ Carcinoma TGLS = 5-8 ]	Pars Distalis	Carcinoma	
* Spleen		Hyperplasia	Lymphoid, Mild
* Thyroid Gland [ Carcinoma TGLS = 4-2 ]	Follicular Cel	Carcinoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 100

TRT#: 2

DOSE: 0 MG/M3

SEX: Female

DISP: Natural Death

DAY ON TEST: 695

HISTO: MZ031/E0100

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                           |                           |                             |
|--------------------------|---------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Bone                    | * Bone Marrow             | * Brain                     |
| * Clitoral Gland         | * Esophagus               | * Gallbladder             | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon  | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Islets, Pancreatic      | * Kidney                  | * Larynx                    |
| * Liver                  | * Lymph Node, Mediastinal | * Mammary Gland           | * Ovary                     |
| * Pancreas               | * Parathyroid Gland       | * Pituitary Gland         | * Salivary Glands           |
| * Spleen                 | * Stomach, Forestomach    | * Stomach, Glandular      | * Trachea                   |
| * Urinary Bladder        |                           |                           |                             |

MISSING

- |                          |                          |          |
|--------------------------|--------------------------|----------|
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Thymus |
|--------------------------|--------------------------|----------|

AUTO PRECLUDES DIAG.

- \* Intestine Small, Jejunum

OBSERVATIONS

- |   |   |   |  |
|---|---|---|--|
| * Adrenal Medulla                           |   | Pheochromocytoma Malignant                  |  |
| [ Pheochromocytoma Malignant TGLS = 1,2-9 ] |   |   |  |
| * Lung                                      | Alveolus  | Hyperplasia<br>Inflammation<br>Pigmentation | Macrophage, Moderate<br>Chronic, Mild<br>Hemosiderin, Mild |
| * Lymph Node, Bronchial                     |   | Hyperplasia                                 | Lymphoid, Mild   |
| * Nose                                      | Olfactory Epi<br>Respirat Epith<br>Respirat Epith | Degeneration<br>Degeneration                | Mild<br>Mild   |
| * Thyroid Gland                             |   | Metaplasia                                  | Squamous, Minimal  |
| * Uterus                                    | Endometrium                                       | Infiltration Cellular<br>Hyperplasia        | Lymphocyte, Minimal<br>Cystic, Minimal                     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 101	<b>TRT#:</b> 2 <b>DOSE:</b> 0 MG/M3	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b> MZ031/E101
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**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	* Islets, Pancreatic	* 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	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

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**INSUFFICIENT TISSUE**

\* Clitoral Gland

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**OBSERVATIONS**

* Adrenal Cortex	Spindle Cell	Hyperplasia	Minimal
* Kidney	Renal Tubule	Hyperplasia	Mild
* Ovary		Cyst	
[ Cyst TGLS = 2-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Moderate

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 102

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E102

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

\* Parathyroid Gland

**OBSERVATIONS**

* Lymph Node, Mandibular [ Hyperplasia TGLS = 1-6 ]		Hyperplasia	Lymphoid, Mild
* Nose	Olfactory Epi	Degeneration	Minimal
* Ovary [ Cyst TGLS = 2-6 ]		Cyst	
* Thymus		Hyperplasia	Lymphoid, Mild
* Uterus [ Hyperplasia TGLS = 3-6,9 ]	Endometrium	Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 103

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/103

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Bone		Hyperostosis	Minimal
* Lymph Node, Mediastinal		Lymphoma Malignant	
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 105

**TRT#:** 2  
**DOSE:** 0 MG/M3

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 132  
**HISTO:** MZ031/E105

**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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

**MISSING**

* Clitoral Gland	* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Parathyroid Gland	* Thymus		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 106

**TRT#:** 2  
**DOSE:** 0 MG/M3

**SEX:** Female  
**DISP:** Natural Death

**DAY ON TEST:** 29  
**HISTO:** MZ031/E106

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Rectum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mediastinal		

**AUTO PRECLUDES DIAG.**

* Gallbladder	* Lymph Node, Mesenteric
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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 107

TRT#: 4

SEX: Female

DAY ON TEST: 459

DOSE: 0 MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/E107

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Bone                     | * Bone Marrow             | * Brain                     |
| * Clitoral Gland         | * 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                 | * Liver                    | * Lung                    | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Mammary Gland           | * Ovary                     |
| * Pancreas               | * Parathyroid Gland        | * Pituitary Gland         | * Salivary Glands           |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | Tongue                     | * Trachea                 | * Urinary Bladder           |

INSUFFICIENT TISSUE

- \* Lymph Node, Mediastinal

OBSERVATIONS

- |                              |                        |                       |          |
|------------------------------|------------------------|-----------------------|----------|
| * Adrenal Cortex             |                        | Infiltration Cellular |          |
| * Nose                       | Olfactory Epi          | Degeneration          | Minimal  |
| * Uterus                     | Bilateral, Endometrium | Hyperplasia           | Moderate |
| [ Hyperplasia TGLS = 1-6,9 ] |                        |                       |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 108

TRT#: 4

SEX: Female

DAY ON TEST: 91

DOSE: 0 MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031-E108

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lung	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Thymus
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**AUTO PRECLUDES DIAG.**

\* Nose

**INSUFFICIENT TISSUE**

\* Adrenal Medulla

**OBSERVATIONS**

\* Ovary Teratoma Benign

[ Teratoma Benign TGLS = 1-6,9 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 109

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 642

**DOSE:** 0 MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/E109

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

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

* Ovary	Cyst
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[ Cyst TGLS = 2,3-6 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 110

TRT#: 2

SEX: Female

DAY ON TEST: 357

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E110

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex  
\* Clitoral Gland  
\* Intestine Large, Cecum  
\* Intestine Small, Jejunum  
\* Liver  
\* Mammary Gland  
\* Pituitary Gland  
\* Stomach, Glandular  
\* Urinary Bladder

\* Adrenal Medulla  
\* Esophagus  
\* Intestine Large, Colon  
\* Islets, Pancreatic  
\* Lung  
\* Ovary  
\* Salivary Glands  
\* Thymus  
\* Uterus

\* Bone  
\* Gallbladder  
\* Intestine Small, Duodenum  
\* Kidney  
\* Lymph Node, Mandibular  
\* Pancreas  
\* Spleen  
\* Thyroid Gland

\* Brain  
\* Heart  
\* Intestine Small, Ileum  
\* Larynx  
\* Lymph Node, Mesenteric  
\* Parathyroid Gland  
\* Stomach, Forestomach  
\* Trachea

**MISSING**

\* Intestine Large, Rectum

\* Lymph Node, Bronchial

\* Lymph Node, Mediastinal

**OBSERVATIONS**

\* Bone Marrow  
\* Nose

Myeloid Cell  
Respirat Epith  
Respirat Epith

Hyperplasia  
Inflammation  
Metaplasia

Mild  
Suppurative, Mild  
Squamous, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 111

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/E111

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone Marrow	* Brain	* Clitoral Gland
* 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
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

**INSUFFICIENT TISSUE**

\* Ovary

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Bone		Hyperostosis	Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Moderate
	[ Angiectasis TGLS = 1-8 ]		
	[ Hyperplasia TGLS = 1-8 ]		
* Thyroid Gland		Hyperplasia	Cystic, Moderate
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 112

TRT#: 2

DOSE: 0 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO: MZ031/E112

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lung	* Mammary Gland	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	

OBSERVATIONS

* Kidney		Lymphoma Malignant	
* Liver		Hepatocellular Carcinoma	
		Lymphoma Malignant	
[ Hepatocellular Carcinoma TGLS = 6-9 ]			
[ Lymphoma Malignant TGLS = 7-3 ]			
Lymph Node	Iliac	Lymphoma Malignant	
	Pancreatic	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 12-4,5-11,8-14,15,1-6,3-5,11-2,9-12,13 ]			
[ Lymphoma Malignant TGLS = 12-4,5-11,8-14,15,1-6,3-5,11-2,9-12,13 ]			
[ Lymphoma Malignant TGLS = 12-4,5-11,8-14,15,1-6,3-5,11-2,9-12,13 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 12-4,5-11,8-14,15,1-6,3-5,11-2,9-12,13 ]			
* Lymph Node, Mandibular		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 12-4,5-11,8-14,15,1-6,3-5,11-2,9-12,13 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 12-4,5-11,8-14,15,1-6,3-5,11-2,9-12,13 ]			
* Lymph Node, Mesenteric		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 12-4,5-11,8-14,15,1-6,3-5,11-2,9-12,13 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Ovary		Cyst	
[ Cyst TGLS = 4-6 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 112	<b>TRT#:</b> 2 <b>DOSE:</b> 0 MG/M3	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b> MZ031/E112
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Pancreas		Lymphoma Malignant	
* Spleen		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 2-3,10 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Urinary Bladder		Lymphoma Malignant	
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 113

TRT#: 2

DOSE: 0 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 728

HISTO: MZ031/E113

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Intestine Small, Ileum

OBSERVATIONS

* Adrenal Medulla		Degeneration	Moderate
* Clitoral Gland		Pigmentation	Minimal
* Kidney		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-3,14 ]			
* Liver		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 10,11,12,13-3,15,16 ]			
* Lung		Lymphoma Malignant	
Lymph Node	Axillary	Hemangiosarcoma	
	Iliac	Lymphoma Malignant	
	Pancreatic	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
[ Hemangiosarcoma TGLS = 1-10 ]			
[ Lymphoma Malignant TGLS = 7-11,2-12,15-4,8-9,14-2 ]			
[ Lymphoma Malignant TGLS = 7-11,2-12,15-4,8-9,14-2 ]			
[ Lymphoma Malignant TGLS = 7-11,2-12,15-4,8-9,14-2 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 7-11,2-12,15-4,8-9,14-2 ]			
* Lymph Node, Mandibular		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 7-11,2-12,15-4,8-9,14-2 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 7-11,2-12,15-4,8-9,14-2 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 113	<b>TRT#:</b> 2 <b>DOSE:</b> 0 MG/M3	<b>SEX:</b> Female <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 728 <b>HISTO:</b> MZ031/E113
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Nose	Respirat Epith Respirat Epith	Inflammation Metaplasia	Suppurative, Minimal Squamous, Minimal
* Ovary [ Cyst TGLS = 4-6 ]		Cyst	
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Salivary Glands		Lymphoma Malignant	
* Spleen [ Hemangiosarcoma TGLS = 6-3,13 ] [ Lymphoma Malignant TGLS = 5-3,13 ]		Hemangiosarcoma Lymphoma Malignant	
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 114

TRT#: 2

DOSE: 0 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 559

HISTO: MZ031/E114

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lung
* Lymph Node, Mediastinal	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Salivary Glands	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Gallbladder	* Parathyroid Gland
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OBSERVATIONS

* Bone Marrow		Myelofibrosis	Minimal
* Kidney		Nephropathy	Moderate
[ Nephropathy TGLS = 6-3 ]			
* Liver		Abscess	Marked
[ Abscess TGLS = 3,4-3,11 ]			
Lymph Node	Renal	Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 11-4,7-10 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 11-4,7-10 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 11-4,7-10 ]			
* Lymph Node, Mesenteric		Inflammation	Suppurative, Mild
* Ovary		Abscess	Marked
		Inflammation	Suppurative, Moderate
[ Abscess TGLS = 9-6 ]			
[ Inflammation TGLS = 8-6 ]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
[ Hematopoietic Cell Proliferation TGLS = 1-3 ]			
* Stomach, Forestomach		Inflammation	Chronic, Mild
[ Inflammation TGLS = 5-5 ]			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 114

**TRT#:** 2  
**DOSE:** 0 MG/M3

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 559  
**HISTO:** MZ031/E114

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Stomach, Glandular  
[ Inflammation TGLS = 5-5 ]

Inflammation

Chronic, Mild

\* Uterus  
[ Polyp Stromal TGLS = 10-9 ]

Polyp Stromal

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 115

TRT#: 2

DOSE: 0 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: MZ031-E115

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mediastinal
* Ovary	* Pancreas	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

INSUFFICIENT TISSUE

\* Parathyroid Gland

OBSERVATIONS

* Clitoral Gland		Inflammation	Chronic, Marked
* Liver		Inflammation	Chronic, Focal, Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 1-6 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 1-6 ]			
* Mammary Gland		Hyperplasia	Glandular, Mild
[ Hyperplasia TGLS = 2-6 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-8 ]			
* Spleen		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 3-9 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
Tooth		Developmental Malformation	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 116

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 0 MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-E116

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

**OBSERVATIONS**

* Kidney		Lymphoma Malignant	
* Liver		Lymphoma Malignant	
* Lung		Lymphoma Malignant	
Lymph Node	Iliac	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 3-12,5-4,4-11 ]		
	[ Lymphoma Malignant TGLS = 3-12,5-4,4-11 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 3-12,5-4,4-11 ]		
* Lymph Node, Mandibular		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 3-12,5-4,4-11 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 3-12,5-4,4-11 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 3-12,5-4,4-11 ]		
* Mammary Gland		Hyperplasia	Glandular, Mild
Mesentery		Hemangiosarcoma	
	[ Hemangiosarcoma TGLS = 1-10 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 6-8 ]		
* Spleen		Lymphoma Malignant	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 116

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 0 MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-E116

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Lymphoma Malignant TGLS = 2-9 ]

\* Thymus

Lymphoma Malignant

\* Thyroid Gland

Hyperplasia

Cystic, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 117

TRT#: 4

SEX: Female

DAY ON TEST: 459

DOSE: 0 MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/E117

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Bone                     | * Bone Marrow             |
| * Brain                     | * Clitoral Gland         | * 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                 | * Liver                    | * Lung                    |
| * Lymph Node, Bronchial     | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Mammary Gland           |
| * Nose                      | * Ovary                  | * Pancreas                 | * Pituitary Gland         |
| * Salivary Glands           | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          | * Uterus                  |

MISSING

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

OBSERVATIONS

- |                            |             |                |
|----------------------------|-------------|----------------|
| * Spleen                   | Hyperplasia | Lymphoid, Mild |
| [ Hyperplasia TGLS = 2-3 ] |             |                |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 118

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ035-E118

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Bone		Hyperostosis	
* Liver		Eosinophilic Focus	
* Lung		Inflammation	Chronic, Minimal
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 119

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E119

**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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Thymus	* Trachea	* Urinary Bladder

**MISSING**

\* Stomach, Glandular

**OBSERVATIONS**

* Bone		Hyperostosis	
* Clitoral Gland		Pigmentation	Minimal
* Nose	Respirat Epith	Degeneration	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
[ Angiectasis TGLS = 3-8 ]			
* Thyroid Gland	Follicular Cel	Adenoma	
* Uterus		Leiomyoma	
[ Leiomyoma TGLS = 1-9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 120

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 11

**DOSE:** 0 MG/M3 LUNGTX

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/E120

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lung
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

* Lymph Node, Bronchial	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Parathyroid Gland
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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 121

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E121

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lymph Node, Mandibular [ Hyperplasia TGLS = 1-6 ]		Hyperplasia	Lymphoid, Marked
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Mild
	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Uterus [ Sarcoma Stromal TGLS = 2-9 ]		Sarcoma Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 122

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 200

**DOSE:** 0 MG/M3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZ031-E122

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Kidney

\* Lung

\* Nose

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**MISSING**

\* Lymph Node, Mediastinal

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**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 123

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E123

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

Ear	External Ear	Fibrosarcoma	
[ Fibrosarcoma TGLS = 1-12 ]			
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Ovary		Cystadenoma	
[ Cystadenoma TGLS = 4-6,10 ]			
Skin	Subcut Tiss	Hemangiosarcoma	
Note: MISTAKEN AT GROSS FOR LYMPH NODE			
[ Hemangiosarcoma TGLS = 2-11 ]			
* Spleen		Hemangiosarcoma	
Note: LARGE TUMOR,SIZE,DISTRIBUTION = NOT METASTATIC			
[ Hemangiosarcoma TGLS = 3-9 ]			

PRIMARY CAUSE OF DEATH

-

Animal Note: ING LN IS SUB Q TUMOR SEE SKIN

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 124

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E124

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* 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
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Liver		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 3,4-3,9 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
[ Angiectasis TGLS = 5-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Marked
[ Hematopoietic Cell Proliferation TGLS = 1-3,11 ]			
* Thymus		Atrophy	Moderate
* Uterus		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 2-10 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 125

TRT#: 4

SEX: Female

DAY ON TEST: 459

DOSE: 0 MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/E125

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal
* Uterus	Endometrium	Hyperplasia	Mild

[ Hyperplasia TGLS = 1-6,9 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 126

TRT#: 2

DOSE: 0 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO: MZ031-E126

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lung	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

\* Thymus

OBSERVATIONS

* Bone		Hyperostosis	
Lymph Node	Iliac	Hyperplasia	Lymphoid, Marked
	Renal	Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 5-2,6-4,4-11,3-10 ]			
[ Hyperplasia TGLS = 5-2,6-4,4-11,3-10 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
[ Hyperplasia TGLS = 5-2,6-4,4-11,3-10 ]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 5-2,6-4,4-11,3-10 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 5-2,6-4,4-11,3-10 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 2-3 ]			
* Thyroid Gland		Hyperplasia	Cystic, Marked
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 1-9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 127

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E127

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver Note: SLIDE 12 - NORM. TANGENTIAL CUT Note: 3 LARGE ADENOMAS, 1 W/ CENTRAL NECROSIS [ Hepatocellular Adenoma TGLS = 4-10,5-11,3-9 ]		Hepatocellular Adenoma	Multiple
* Lymph Node, Bronchial Skeletal Muscle Note: FROM MUSCLES OF THORACIC WALL [ Rhabdomyosarcoma TGLS = 7-14 ]		Hyperplasia Rhabdomyosarcoma	Lymphoid, Mild
* Spleen [ Hyperplasia TGLS = 1-3 ]		Hematopoietic Cell Proliferation Hyperplasia	Mild Lymphoid, Moderate
* Thyroid Gland Tissue NOS Note: TNOS=MUSCLE OF THORACIC WALL		Hyperplasia	Cystic, Mild
* Uterus [ Hyperplasia TGLS = 2-13 ]	Endometrium	Hyperplasia	Cystic, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 128

TRT#: 2

SEX: Female

DAY ON TEST: 586

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E128

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

* Intestine Small, Ileum	* Lymph Node, Mediastinal
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**OBSERVATIONS**

* Liver	Hepatocellular Carcinoma	Multiple
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[ Hepatocellular Carcinoma TGLS = 1,2-3,9,10 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 129

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E129

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Larynx	* Mammary Gland
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OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 1-10 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
[ Alveolar/Bronchiolar Carcinoma TGLS = 3-9,4-4,11-11 ]			
* Lymph Node, Bronchial		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 5-4 ]			
* Lymph Node, Mediastinal		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 5-4 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
Skel Muscle			
Note: TGL LISTED IN TISSNOS-TUMOR IN THORACIC CAVITY			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thymus		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 2-2 ]			
Tissue NOS	Thoracic	Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 8-12,9-13 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 130

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E130

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Bone		Hyperostosis	
* Lung		Alveolar/Bronchiolar Adenoma	
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Hyperplasia	Glandular, Mild
* Nose	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal
* Ovary		Cyst	
* Spleen		Hyperplasia	Lymphoid, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

**ANIMAL ID:** 131

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 0 MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-E131

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lung	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

**MISSING**

\* Lymph Node, Mesenteric

**OBSERVATIONS**

* Bone		Hyperostosis	
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 132

TRT#: 4

SEX: Female

DAY ON TEST: 24

DOSE: 0 MG/M3 LUNGTX

DISP: Natural Death

HISTO: MZ031/E132

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex  
\* Clitoral Gland  
\* Kidney  
\* Lymph Node, Mandibular  
\* Pancreas  
\* Stomach, Forestomach

\* Bone  
\* Esophagus  
\* Larynx  
\* Mammary Gland  
\* Pituitary Gland  
\* Stomach, Glandular

\* Bone Marrow  
\* Heart  
\* Liver  
\* Nose  
\* Salivary Glands  
\* Thymus

\* Brain  
\* Islets, Pancreatic  
\* Lung  
\* Ovary  
\* Spleen  
\* Uterus

**MISSING**

\* Adrenal Medulla  
\* Parathyroid Gland

\* Lymph Node, Bronchial  
\* Thyroid Gland

\* Lymph Node, Mediastinal

\* Lymph Node, Mesenteric

**AUTO PRECLUDES DIAG.**

\* Gallbladder  
\* Intestine Small, Duodenum

\* Intestine Large, Cecum  
\* Intestine Small, Ileum

\* Intestine Large, Colon  
\* Intestine Small, Jejunum

\* Intestine Large, Rectum  
\* Urinary Bladder

**INSUFFICIENT TISSUE**

\* Trachea

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 133

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0 MG/M3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZ031/E133

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* 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	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**OBSERVATIONS**

* Uterus	Endometrium	Hyperplasia	Moderate
[ Hyperplasia TGLS = 1-6,9 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 134

TRT#: 2

SEX: Female

DAY ON TEST: 618

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E134

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Islets, Pancreatic	* Larynx	* Lung
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Intestine Large, Rectum	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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AUTO PRECLUDES DIAG.

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

INSUFFICIENT TISSUE

\* Thymus

OBSERVATIONS

* Kidney		Nephropathy	Mild
* Liver		Eosinophilic Focus	
Lymph Node	Iliac	Lymphoma Malignant	
	Pancreatic	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-10,3-11,2-5,5-9,6-4 ]		
	[ Lymphoma Malignant TGLS = 4-10,3-11,2-5,5-9,6-4 ]		
	[ Lymphoma Malignant TGLS = 4-10,3-11,2-5,5-9,6-4 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-10,3-11,2-5,5-9,6-4 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-10,3-11,2-5,5-9,6-4 ]		
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Mild
	Respirat Epith	Metaplasia	Squamous, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 134

**TRT#:** 2  
**DOSE:** 0 MG/M3

**SEX:** Female  
**DISP:** Natural Death

**DAY ON TEST:** 618  
**HISTO:** MZ031/E134

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Spleen  
[ Lymphoma Malignant TGLS = 1-3 ]

Lymphoma Malignant

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 135

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 0 MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-E135

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Lung	Inflammation	Chronic, Minimal
* Stomach, Forestomach [ Hyperkeratosis TGLS = 3-5 ]	Hyperkeratosis	Mild
* Thyroid Gland	Hyperplasia	Cystic, Mild

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 136

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E136

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Bone Marrow               | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Gallbladder               | * Heart                  |
| * Intestine Large, Cecum   | * Intestine Large, Colon  | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Larynx                 |
| * Lung                     | * Lymph Node, Mediastinal | * Nose                      | * Ovary                  |
| * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

MISSING

- \* Intestine Large, Rectum

OBSERVATIONS

- |  |               |                        |                    |
|--|---------------|------------------------|--------------------|
| * Bone                                 |               | Hyperostosis           |                    |
| * Liver                                |               | Hepatocellular Adenoma |                    |
| Note: CLASSIFIED CA ON ANAPLASIA       |               |                        |                    |
| [ Hepatocellular Adenoma TGLS = 5-3 ]  |               |                        |                    |
| Lymph Node                             | Pancreatic    | Lymphoma Malignant     |                    |
|  | Renal         | Lymphoma Malignant     |                    |
| [ Lymphoma Malignant TGLS = 2-9,3-10 ] |               |                        |                    |
| [ Lymphoma Malignant TGLS = 2-9,3-10 ] |               |                        |                    |
| * Lymph Node, Bronchial                |               | Lymphoma Malignant     |                    |
| [ Lymphoma Malignant TGLS = 2-9,3-10 ] |               |                        |                    |
| * Lymph Node, Mandibular               |               | Hyperplasia            | Lymphoid, Moderate |
| [ Hyperplasia TGLS = 1-6 ]             |               |                        |                    |
| * Lymph Node, Mesenteric               |               | Hyperplasia            | Lymphoid, Mild     |
| [ Hyperplasia TGLS = 1-6 ]             |               |                        |                    |
| * Mammary Gland                        |               | Hyperplasia            | Glandular, Minimal |
| * Pituitary Gland                      | Pars Distalis | Angiectasis            | Marked             |
| [ Angiectasis TGLS = 4-8 ]             |               |                        |                    |
| * Spleen                               |               | Hyperplasia            | Lymphoid, Mild     |
| * Thyroid Gland                        |               | Hyperplasia            | Cystic, Minimal    |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 136

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 0 MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-E136

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 137

TRT#: 2

SEX: Female

DAY ON TEST: 694

DOSE: 0 MG/M3

DISP: Natural Death

HISTO: MZ031/E137

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

INSUFFICIENT TISSUE

\* Parathyroid Gland

OBSERVATIONS

* Heart		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-9 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
[ Alveolar/Bronchiolar Carcinoma TGLS = 7-4; 5,6-4 ]			
* Mammary Gland		Carcinoma	
[ Carcinoma TGLS = 1-12 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 8-8 ]			
Skeletal Muscle		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 3-11 ]			
* Thymus		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 4-2 ]			
* Thyroid Gland		Hyperplasia	Cystic, Moderate
Tissue NOS			
Note: TGL "TNOS" IS MAMMARY GLAND N.B.			
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 137

**TRT#:** 2  
**DOSE:** 0 MG/M3

**SEX:** Female  
**DISP:** Natural Death

**DAY ON TEST:** 694  
**HISTO:** MZ031/E137

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 138

TRT#: 2

SEX: Female

DAY ON TEST: 688

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E138

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* 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, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**OBSERVATIONS**

* Adrenal Medulla		Hyperplasia	Mild
* Heart	Arteriole	Inflammation	Chronic, Minimal
* Liver		Clear Cell Focus	
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Nose	Olfactory Epi	Degeneration	Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 139

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E139

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

**OBSERVATIONS**

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 1-9 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 140

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0 MG/M3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZ031/E140

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* 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	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**OBSERVATIONS**

* Uterus	Endometrium	Hyperplasia	Mild
[ Hyperplasia TGLS = 1-6,9 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 141

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E141

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mediastinal	* Ovary
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OBSERVATIONS

* Liver		Clear Cell Focus	
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Pituitary Gland	Pars Distalis	Angiectasis	Marked
[ Angiectasis TGLS = 1-8 ]			
* Spleen		Hyperplasia	Lymphoid, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 142

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E142

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Mammary Gland	* Ovary
* Pancreas	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

**MISSING**

* Lymph Node, Mediastinal	* Parathyroid Gland
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**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

**OBSERVATIONS**

* Bone		Hyperostosis	
* Liver		Hepatocellular Adenoma	
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Marked
* Spleen		Hyperplasia	Lymphoid, Mild
Tooth		Inflammation	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 143

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 200

**DOSE:** 0 MG/M3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-E143

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Lung

\* Nose

---

**MISSING**

\* Lymph Node, Mediastinal

---

**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

---

**OBSERVATIONS**

\* Kidney

Infiltration Cellular

Lymphocyte, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 144

TRT#: 2

DOSE: 0 MG/M3

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 622

HISTO: MZ031/E144

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lung	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Adrenal Medulla	Spindle Cell	Hyperplasia	Mild
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
	Renal	Hyperplasia	Lymphoid, Moderate
	[ Hyperplasia TGLS = 3-6 ]		
	[ Hyperplasia TGLS = 6-12 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
	[ Hyperplasia TGLS = 8-4 ]		
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
	[ Hyperplasia TGLS = 5-11 ]		
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
Skin		Inflammation	Chronic Active, Marked
	[ Inflammation TGLS = 1-10,2-9 ]		
* Spleen		Hematopoietic Cell Proliferation	Moderate
	[ Hematopoietic Cell Proliferation TGLS = 4-3 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 144

**TRT#:** 2  
**DOSE:** 0 MG/M3

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 622  
**HISTO:** MZ031/E144

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 145

TRT#: 2

DOSE: 0 MG/M3

SEX: Female

DISP: Natural Death

DAY ON TEST: 730

HISTO: MZ031/E145

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Clitoral Gland	* Lymph Node, Mesenteric
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AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 1,2-3,10 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
[ Alveolar/Bronchiolar Carcinoma TGLS = 4-4,9 ]		Inflammation	Chronic, Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 3-4 ]			
* Nose	Respirat Epith	Degeneration	Minimal
* Spleen		Hyperplasia	Lymphoid, Moderate
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 146

**TRT#:** 2  
**DOSE:** 0 MG/M3

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 731  
**HISTO:** MZ031-E146

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Ovary

**OBSERVATIONS**

* Bone		Hyperostosis	
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 147

TRT#: 2

SEX: Female

DAY ON TEST: 732

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E147

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Bone	Hyperostosis	
* Clitoral Gland	Inflammation	Chronic, Minimal
* Lung	Inflammation	Chronic, Minimal
* Lymph Node, Bronchial	Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular	Hyperplasia	Lymphoid, Moderate
* Mammary Gland	Hyperplasia	Glandular, Minimal
* Spleen	Hematopoietic Cell Proliferation	Mild

[ Hematopoietic Cell Proliferation TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 148

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 200

**DOSE:** 0 MG/M3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-E148

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Kidney

\* Lung

\* Lymph Node, Bronchial

\* Nose

---

**MISSING**

\* Lymph Node, Mandibular

\* Lymph Node, Mediastinal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 149

TRT#: 2

SEX: Female

DAY ON TEST: 736

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E149

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* 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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Clitoral Gland		Pigmentation	Mild
[ Pigmentation TGLS = 1-6 ]			
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
	Renal	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 4-11,5-12 ]			
[ Hyperplasia TGLS = 4-11,5-12 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 4-11,5-12 ]			
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal
* Ovary		Abscess	Moderate
[ Abscess TGLS = 3-9 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Spleen		Hyperplasia	Lymphoid, Moderate
* Thyroid Gland		Hyperplasia	Cystic, Moderate
* Uterus		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-6,10 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 150

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E150

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Bone Marrow             | * Brain                     |
| * Clitoral Gland         | * 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                 | * Liver                    | * Lung                    | * Lymph Node, Mediastinal   |
| * Mammary Gland          | * Nose                     | * Ovary                   | * Pancreas                  |
| * Parathyroid Gland      | * Pituitary Gland          | * Salivary Glands         | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Trachea                 | * Urinary Bladder           |

OBSERVATIONS

- |                          |             |              |                    |
|--------------------------|-------------|--------------|--------------------|
| * Bone                   |             | Hyperostosis |                    |
| * Lymph Node, Bronchial  |             | Hyperplasia  | Lymphoid, Minimal  |
| * Lymph Node, Mandibular |             | Hyperplasia  | Lymphoid, Moderate |
| * Lymph Node, Mesenteric |             | Hyperplasia  | Lymphoid, Minimal  |
| * Spleen                 |             | Hyperplasia  | Lymphoid, Mild     |
| * Thyroid Gland          |             | Hyperplasia  | Cystic, Marked     |
| * Uterus                 | Endometrium | Hyperplasia  | Cystic, Mild       |

[ Hyperplasia TGLS = 1-6 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 151

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E151

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-9 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Nose	Respirat Epith	Degeneration	Mild
* Ovary		Cyst	
[ Cyst TGLS = 1-6 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Stomach, Forestomach		Squamous Cell Carcinoma	
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: DX BASED ON LOCAL INVASION

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 152

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E152

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone		Hyperostosis	
* Clitoral Gland		Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Mammary Gland		Hyperplasia	Glandular, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Uterus		Polyp Stromal	

Note: VERY LARGE BUT NO ANAPLASIA

[ Polyp Stromal TGLS = 1-9 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 153

TRT#: 2

DOSE: 0 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: MZ031-E153

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Brain	* Clitoral Gland	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lung	* Mammary Gland
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Bone		Hyperostosis	
* Bone Marrow		Lymphoma Malignant	
* Kidney		Lymphoma Malignant	
* Liver		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 5-3 ]			
Lymph Node	Iliac	Lymphoma Malignant	
	Pancreatic	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-11,4-12,6-10,7,8-9,3-5,1-6,11-4,10-2 ]			
[ Lymphoma Malignant TGLS = 9-11,4-12,6-10,7,8-9,3-5,1-6,11-4,10-2 ]			
[ Lymphoma Malignant TGLS = 9-11,4-12,6-10,7,8-9,3-5,1-6,11-4,10-2 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-11,4-12,6-10,7,8-9,3-5,1-6,11-4,10-2 ]			
* Lymph Node, Mandibular		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-11,4-12,6-10,7,8-9,3-5,1-6,11-4,10-2 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-11,4-12,6-10,7,8-9,3-5,1-6,11-4,10-2 ]			
* Lymph Node, Mesenteric		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-11,4-12,6-10,7,8-9,3-5,1-6,11-4,10-2 ]			
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal
* Ovary		Cyst	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 153

**TRT#:** 2  
**DOSE:** 0 MG/M3

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 729  
**HISTO:** MZ031-E153

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pancreas		Lymphoma Malignant	
* Spleen		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 2-3 ]			
Stomach			
Note: [ SQ CL PAPILOM ] TGLs = 12-5			
* Stomach, Forestomach		Squamous Cell Papilloma	
[ Squamous Cell Papilloma TGLS = 12 - 5 ]			
* Thymus		Lymphoma Malignant	
* Thyroid Gland	Follicular Cel	Adenoma	
		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 154

TRT#: 2

SEX: Female

DAY ON TEST: 549

DOSE: 0 MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/E154

**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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lung	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

**OBSERVATIONS**

* Clitoral Gland		Ectasia	Mild
		Pigmentation	Minimal
[ Ectasia TGLS = 1-6 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 155

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 200

**DOSE:** 0 MG/M3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-E155

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Kidney

\* Lung

\* Lymph Node, Bronchial

\* Nose

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**MISSING**

\* Lymph Node, Mediastinal

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 156

TRT#: 2

DOSE: 0 MG/M3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: MZ031-E156

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Trachea	* Uterus		

OBSERVATIONS

* Bone Marrow		Myelofibrosis	Marked
* Heart		Lymphoma Malignant	
* Kidney		Hydronephrosis	Mild
		Lymphoma Malignant	
[ Hydronephrosis TGLS = 7-3 ]			
[ Lymphoma Malignant TGLS = 6-3 ]			
* Larynx		Lymphoma Malignant	
* Liver		Lymphoma Malignant	
* Lung		Lymphoma Malignant	
Lymph Node	Iliac	Lymphoma Malignant	
	Inguinal	Lymphoma Malignant	
	Pancreatic	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-12,13,4-5,5-14,11-4,8-11,2-6 ]			
[ Lymphoma Malignant TGLS = 9-12,13,4-5,5-14,11-4,8-11,2-6 ]			
[ Lymphoma Malignant TGLS = 9-12,13,4-5,5-14,11-4,8-11,2-6 ]			
[ Lymphoma Malignant TGLS = 9-12,13,4-5,5-14,11-4,8-11,2-6 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-12,13,4-5,5-14,11-4,8-11,2-6 ]			
* Lymph Node, Mandibular		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-12,13,4-5,5-14,11-4,8-11,2-6 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-12,13,4-5,5-14,11-4,8-11,2-6 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 156

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 0 MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-E156

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Lymph Node, Mesenteric [ Lymphoma Malignant TGLS = 9-12,13,4-5,5-14,11-4,8-11,2-6 ]		Lymphoma Malignant	
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal
* Ovary [ Lymphoma Malignant TGLS = 3-6 ]		Lymphoma Malignant	
Skeletal Muscle [ Lymphoma Malignant TGLS = 12-10 ]		Lymphoma Malignant	
* Spleen [ Lymphoma Malignant TGLS = 1-9 ]		Lymphoma Malignant	
* Stomach, Glandular		Lymphoma Malignant	
* Thymus [ Lymphoma Malignant TGLS = 10-2 ]		Lymphoma Malignant	
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Urinary Bladder		Lymphoma Malignant	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 158

TRT#: 2

SEX: Female

DAY ON TEST: 731

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E158

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Liver	* 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

MISSING

* Intestine Large, Rectum	* Larynx
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OBSERVATIONS

* Bone		Hyperostosis	
* Intestine Large, Cecum		Hyperplasia	Lymphoid, Mild
* Lung		Alveolar/Bronchiolar Carcinoma	
	[ Alveolar/Bronchiolar Carcinoma TGLS = 3-9 ]		
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal
* Ovary			
	Note: TGL FOCUS =HEMOR. IN FOLLICLE=NOT SIGNIF. LESION		
* Spleen		Hyperplasia	Lymphoid, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 159

TRT#: 2

SEX: Female

DAY ON TEST: 736

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E159

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Fracture Hyperostosis	
Note: HEALED FRACTURE [ Fracture TGLS = 1-10 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
* Mammary Gland [ Carcinoma TGLS = 2-9 ]		Carcinoma	
* Nose	Olfactory Epi Respirat Epith	Degeneration Degeneration	Minimal Minimal
Tissue NOS Note: TNOS = MAMMARY GLAND N.B.			
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 160

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-E160

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lung
* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

**MISSING**

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

* Nose	Respirat Epith	Degeneration	Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 241

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F241

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* 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	* Islets, Pancreatic	* Kidney	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Salivary Glands	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
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INSUFFICIENT TISSUE

* Clitoral Gland	* Larynx
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OBSERVATIONS

* Bone Marrow		Myelofibrosis	Moderate
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Pigmentation	Minimal
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
* Spleen		Hemangiosarcoma	
		Hyperplasia	Lymphoid, Mild
[ Hemangiosarcoma TGLS = 3-9 ]			
* Stomach, Forestomach		Hyperkeratosis	Mild
* Uterus	Cervix	Hemangiosarcoma	
	Endometrium	Hyperplasia	Cystic, Mild
[ Hemangiosarcoma TGLS = 1-10 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 242

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 1.25MGM3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/F242

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
	[ Hyperplasia TGLS = 1-6,3-4 ]		
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Minimal
	[ Hyperplasia TGLS = 1-6,3-4 ]		
* Nose	Respirat Epith	Degeneration	Minimal
* Uterus	Endometrium	Hyperplasia	Moderate
	[ Hyperplasia TGLS = 2-6,9 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 243

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 1.25MGM3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/F243

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
Note: TGL - 4 = NCL			
* Spleen		Hyperplasia	Lymphoid, Minimal
[ Hyperplasia TGLS = 1-3 ]			
* Uterus	Endometrium	Hyperplasia	Moderate
[ Hyperplasia TGLS = 2-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 244

TRT#: 6

SEX: Female

DAY ON TEST: 566

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F244

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Liver	* 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

Ear			
Note: TGL "EAR" IS SKIN, N.B.			
* Kidney	Pelvis	Infiltration Cellular	Lymphocyte, Moderate
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 4-4 ]			
* Ovary		Cyst	
[ Cyst TGLS = 2-6 ]			
Skin	Pinna	Cyst Epithelial Inclusion	
[ Cyst Epithelial Inclusion TGLS = 1-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Marked
[ Hyperplasia TGLS = 3-6,10 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 245

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F245

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Pigmentation	Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 1-6 ]			
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal
* Ovary		Cyst	
[ Cyst TGLS = 2-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 246

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F246

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Bone Marrow             | * Brain                     |
| * Clitoral Gland         | * 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                 | * Liver                    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   |
| * Lymph Node, Mesenteric | * Mammary Gland            | * Nose                    | * Ovary                     |
| * Pancreas               | * Parathyroid Gland        | * Salivary Glands         | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

OBSERVATIONS

- |                             |                |              |                    |
|-----------------------------|----------------|--------------|--------------------|
| * Bone                      |                | Hyperostosis | Minimal            |
| * Lung                      | Alveolar Epith | Hyperplasia  | Minimal            |
|                             |                | Inflammation | Chronic, Minimal   |
|                             | Alveolus       | Pigmentation | Mild               |
| * Lymph Node, Bronchial     |                | Hyperplasia  | Lymphoid, Moderate |
|                             |                | Pigmentation | Mild               |
| [ Hyperplasia TGLS = 3-4 ]  |                |              |                    |
| [ Pigmentation TGLS = 3-4 ] |                |              |                    |
| * Pituitary Gland           | Pars Distalis  | Adenoma      |                    |
| [ Adenoma TGLS = 2-8 ]      |                |              |                    |
| * Spleen                    |                | Hyperplasia  | Lymphoid, Mild     |
| * Thyroid Gland             |                | Hyperplasia  | Cystic, Minimal    |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 247

TRT#: 8

SEX: Female

DAY ON TEST: 597

DOSE: 1.25MGM3 LUNGTX

DISP: Natural Death

HISTO: MZ031/F247

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Trachea
* Uterus			

AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Lung		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
Lymph Node	Iliac	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 2-9,5-2,3-10 ]		
	[ Lymphoma Malignant TGLS = 2-9,5-2,3-10 ]		
* Lymph Node, Bronchial		Pigmentation	Minimal
* Lymph Node, Mediastinal		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 2-9,5-2,3-10 ]		
* Mammary Gland		Hyperplasia	Glandular, Moderate
	[ Hyperplasia TGLS = 1-6 ]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 7-8 ]		
* Thymus		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 6-2 ]		
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 248

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F248

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Bone		Hyperostosis	Mild
* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation Pigmentation	Minimal Minimal Mild
* Lymph Node, Bronchial [ Pigmentation TGLS = 2-4 ]			
* Lymph Node, Mandibular [ Hyperplasia TGLS = 1-6 ]		Hyperplasia	Lymphoid, Moderate
* Pituitary Gland [ Angiectasis TGLS = 3-8 ] [ Hyperplasia TGLS = 3-8 ]	Pars Distalis Pars Distalis	Angiectasis Hyperplasia	Mild Mild
* Stomach, Forestomach		Hyperkeratosis	Mild
* Thyroid Gland		Inflammation	Suppurative, Minimal
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 249

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F249

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone		Hyperostosis	Marked, Moderate
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Pigmentation TGLS = 3-4 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Moderate
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 250

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F250

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone		Hyperostosis	Minimal
* Clitoral Gland		Pigmentation	Mild
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 4-9 ]		
	[ Inflammation TGLS = 5-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
* Lymph Node, Mesenteric		Congestion	Moderate
	[ Congestion TGLS = 3-5 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Minimal
* Spleen		Hyperplasia	Lymphoid, Marked
	[ Hyperplasia TGLS = 2-3 ]		
* Thyroid Gland		Hyperplasia	Cystic, Moderate
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 251

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F251

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Clitoral Gland	* Lymph Node, Mediastinal
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OBSERVATIONS

* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
			[ Pigmentation TGLS = 3-4 ]
* Lymph Node, Mandibular		Hyperplasia	Macrophage, Mild
			[ Hyperplasia TGLS = 1-6 ]
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
			[ Hyperplasia TGLS = 1-6 ]
* Ovary		Cyst	
			[ Cyst TGLS = 2-6 ]
* Pituitary Gland	Pars Distalis	Adenoma	
* Stomach, Forestomach		Hyperkeratosis	Minimal
			[ Hyperkeratosis TGLS = 4-5 ]
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 252	<b>TRT#:</b> 8	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 200
	<b>DOSE:</b> 1.25MGM3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZO31-F252

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Lymph Node, Bronchial	* Nose
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**MISSING**

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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**OBSERVATIONS**

* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung	Alveolus	Pigmentation	Minimal

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 253

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F253

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea

MISSING

* Lymph Node, Mediastinal	* Urinary Bladder
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OBSERVATIONS

* Bone		Hyperostosis	Mild
* Clitoral Gland	Duct	Adenoma	
* Lung	Alveolus	Inflammation Pigmentation	Chronic, Minimal Mild
* Lym Node Bron			
Note: TGL 4 = NCL			
* Lymph Node, Mesenteric		Congestion	Mild
* Mammary Gland		Carcinoma	
[ Carcinoma TGLS = 1-6,10 ]			
* Nose	Respirat Epith	Metaplasia	Squamous, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Bilateral	Dilatation	Moderate
[ Dilatation TGLS = 3-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 254

TRT#: 6

SEX: Female

DAY ON TEST: 695

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F254

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Gallbladder	* Intestine Large, Rectum	* Lymph Node, Mediastinal
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AUTO PRECLUDES DIAG.

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

* Adrenal Medulla	Spindle Cell	Hyperplasia	Minimal
* Lung	Alveolar Epith	Alveolar/Bronchiolar Carcinoma	Minimal
	Alveolus	Hyperplasia	Macrophage, Moderate
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 3-9 ]		
	[ Hyperplasia TGLS = 4-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Lymph Node, Mesenteric		Congestion	Mild
* Nose	Respirat Epith	Degeneration	Mild
* Ovary		Congestion	Mild
		Cyst	
	[ Congestion TGLS = 2-6 ]		
	[ Cyst TGLS = 2-6 ]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 254

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 695

**DOSE:** 1.25MGM3

**DISP:** Natural Death

**HISTO:** MZ031/F254

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Spleen

Note: ECTOPIC PANCREAS IN SPLEEN

\* Uterus

Endometrium

Hyperplasia

Cystic, Marked

[ Hyperplasia TGLS = 1-11 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 255

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 200

**DOSE:** 1.25MGM3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-F255

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Kidney

\* Nose

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**MISSING**

\* Lymph Node, Mediastinal

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**INSUFFICIENT TISSUE**

\* Lymph Node, Bronchial

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**OBSERVATIONS**

\* Lung

Inflammation

Chronic, Mild

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 256

TRT#: 6

SEX: Female

DAY ON TEST: 609

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F256

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Brain	* Clitoral Gland
* 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
* Liver	* Lymph Node, Mediastinal	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mesenteric

OBSERVATIONS

* Adrenal Medulla	Spindle Cell	Hyperplasia	Mild
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
Ear			
Note: TGL"EYE MASS" IS HARDERIAN GLAND ADENOMA			
Harderian Gland		Adenoma	
[ Adenoma TGLS = 2-10,11 ]			
* Lung	Alveolus	Inflammation	Chronic, Minimal
		Pigmentation	Mild
		Pigmentation	Minimal
* Lymph Node, Bronchial			
[ Pigmentation TGLS = 6-4 ]			
* Lymph Node, Mandibular			
* Nose	Olfactory Epi	Hyperplasia	Lymphoid, Marked
	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal
		Inflammation	Suppurative, Minimal
* Ovary		Cyst	
[ Cyst TGLS = 4-6 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal
		Inflammation	Suppurative, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:46  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 256

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 609

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F256

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Uterus

Endometrium

Hyperplasia  
Polyp Stromal

Cystic, Mild

[ Hyperplasia TGLS = 3-12 ]

[ Polyp Stromal TGLS = 3-6 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:46

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 257

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031/F257

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Intestine Small, Ileum

OBSERVATIONS

* Lung		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Mild
	[ Inflammation TGLS = 7-4 ]		
	[ Proteinosis TGLS = 7-4 ]		
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
	Renal	Hyperplasia	Lymphoid, Marked
	[ Hyperplasia TGLS = 2-11,6-4,3-10,5-2 ]		
	[ Hyperplasia TGLS = 2-11,6-4,3-10,5-2 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
	[ Hyperplasia TGLS = 2-11,6-4,3-10,5-2 ]		
	[ Pigmentation TGLS = 6-4 ]		
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Marked
	[ Hyperplasia TGLS = 2-11,6-4,3-10,5-2 ]		
* Nose	Olfactory Epi	Degeneration	Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
	[ Hyperplasia TGLS = 1-6,9 ]		

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:46

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

**Lab:** LITRI

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**ANIMAL ID:** 257

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 1.25MGM3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031/F257

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 258

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F258

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolus	Pigmentation	Mild
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
	Iliac	Pigmentation	Minimal
[ Hyperplasia TGLS = 3-9 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 3-9 ]			
Mesentery	Artery	Inflammation	Chronic, Moderate
* Ovary		Cyst	
[ Cyst TGLS = 2-6 ]			
* Spleen		Hyperplasia	Lymphoid, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

-

Animal Note: ILIAC LN-TATTO PIG. SINUS ECTASIA

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 259

TRT#: 6

SEX: Female

DAY ON TEST: 469

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F259

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Islets, Pancreatic
* Kidney	* Larynx	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Parathyroid Gland

AUTO PRECLUDES DIAG.

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

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone Marrow		Myelofibrosis	Mild
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-3,9 ]			
* Lung	Alveolus	Pigmentation	Minimal
* Spleen		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 1-3 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 260

TRT#: 8

SEX: Female

DAY ON TEST: 657

DOSE: 1.25MG/3 LUNGTX

DISP: Natural Death

HISTO: MZ031/F260

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Small, Duodenum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Lung	Alveolar/Bronchiolar Carcinoma Hyperplasia Pigmentation	Multiple Macrophage, Mild Minimal
[ Alveolar/Bronchiolar Carcinoma TGLS = 5,6-4 ]		
* Lymph Node, Bronchial	Hyperplasia Pigmentation	Lymphoid, Mild Minimal
[ Hyperplasia TGLS = 1-6 ]		
* Lymph Node, Mandibular	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 1-6 ]		
* Spleen	Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 2-3 ]		
* Uterus	Dilatation Hemangiosarcoma	Mild
[ Dilatation TGLS = 4-6 ]		
[ Hemangiosarcoma TGLS = 3-6,9 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 261

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F261

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Bone		Hyperostosis	
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Mild
Lymph Node	Renal	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-2,2-5,3-9 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Pigmentation TGLS = 5-4 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-2,2-5,3-9 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-2,2-5,3-9 ]		
* Nose	Respirat Epith	Degeneration	Minimal
* Spleen		Hyperplasia	Lymphoid, Mild
	[ Hyperplasia TGLS = 1-3 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 262

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F262

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Intestine Large, Rectum

INSUFFICIENT TISSUE

\* Lymph Node, Bronchial

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 5-11,4-10 ]		
* Lymph Node, Mediastinal		Pigmentation	Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Marked
	[ Angiectasis TGLS = 3-8 ]		
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus		Carcinoma	
	[ Carcinoma TGLS = 1-9 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 263

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F263

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* 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	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Clitoral Gland		Pigmentation	Minimal
* Kidney		Inflammation	Chronic, Mild
Note: INFLAMMATION IS CENTERED AROUND VESSELS			
* Liver		Hepatocellular Carcinoma	
		Inflammation	Chronic, Focal, Mild
Note: INFLAM. IS AROUND VESSELS			
[ Hepatocellular Carcinoma TGLS = 3-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Minimal
[ Inflammation TGLS = 5-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Minimal
* Mammary Gland		Carcinoma	
[ Carcinoma TGLS = 1-10 ]			
Mesentery	Artery	Inflammation	Chronic, Mild
* Nose	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-8 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 263

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 1.25MGM3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-F263

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Spleen  
[ Hyperplasia TGLS = 2-3 ]

Hyperplasia

Lymphoid, Mild

\* Thyroid Gland

Hyperplasia

Cystic, Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 264

TRT#: 8

SEX: Female

DAY ON TEST: 593

DOSE: 1.25MGM3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/F264

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal
Skin		Sarcoma	
	[ Sarcoma TGLS = 1-10 ]		
* Spleen		Hematopoietic Cell Proliferation	Moderate
	[ Hematopoietic Cell Proliferation TGLS = 2-3 ]		
Tissue NOS			
	Note: TGL"TNOS"=SKIN N.B.		
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
	[ Hyperplasia TGLS = 3,4-6,9 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 265

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F265

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 4-3 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Alveolar/Bronchiolar Carcinoma TGLS = 2-4,10 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
[ Hyperplasia TGLS = 3-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 3-4 ]			
* Mammary Gland		Carcinoma	
[ Carcinoma TGLS = 1-9,10 ]			
* Pituitary Gland	Pars Distalis	Angiectasis	Minimal
Skin			
Note: TGL-SKIN = MAMMARY GLAND			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 266

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F266

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Bone		Hyperostosis	
* Lung		Alveolar/Bronchiolar Adenoma	Multiple
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
Note: ADENOMA, PAPILLARY ON SLIDE 4			
Note: ADENOMA, SOLID, ON SLIDE 9			
[ Alveolar/Bronchiolar Adenoma TGLS = 4-9 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Ovary		Cyst	
[ Cyst TGLS = 3-6 ]			
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
* Spleen		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 1-3 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 267

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F267

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone		Hyperostosis	
* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation Pigmentation Ectasia	Minimal Minimal Minimal Moderate
* Lymph Node, Bronchial			
* Lymph Node, Mesenteric [ Ectasia TGLS = 1-5 ]			
* Nose	Respirat Epith	Degeneration	Minimal
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 269

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F269

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

* Intestine Large, Rectum	* Thymus
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OBSERVATIONS

* Bone		Hyperostosis	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Mandibular		Lymphoma Malignant	
* Nose	Respirat Epith	Degeneration	Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Marked
[ Hyperplasia TGLS = 1-9 ]			

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL2 MESLN RED = CONGESTION, NOT SIGNIF LESION

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 270

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F270

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mediastinal

INSUFFICIENT TISSUE

\* Islets, Pancreatic                      \* Larynx

OBSERVATIONS

* Bone		Hyperostosis	
Ear	External Ear	Hyperkeratosis	Mild
[ Hyperkeratosis TGLS = 1-9 ]			
* Liver		Inflammation	Chronic, Focal, Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
		Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
[ Hyperplasia TGLS = 2-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-4 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 271

TRT#: 6

SEX: Female

DAY ON TEST: 644

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F271

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, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Thymus

OBSERVATIONS

* Clitoral Gland		Ectasia	Mild
		Pigmentation	Mild
[ Ectasia TGLS = 1-6 ]			
* Intestine Small, Duodenum		Inflammation	Suppurative, Mild
* Larynx		Inflammation	Suppurative, Mild
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3-3,9 ]			
* Lung		Hepatocellular Carcinoma	Metastatic (Uncertain Primary Site)
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Ovary		Cyst	
[ Cyst TGLS = 2-6 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 272

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F272

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex	Spindle Cell	Hyperplasia	Marked
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-10 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
[ Hyperplasia TGLS = 3-4 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 3-4 ]			
* Nose	Olfactory Epi	Degeneration	Minimal
* Spleen		Hyperplasia	Lymphoid, Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 5-2 ]			
Tooth		Developmental Malformation	
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 2-9 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 272

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 1.25MGM3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-F272

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 273

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F273

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone		Hyperostosis	
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Inflammation	Chronic, Minimal
	[ Alveolar/Bronchiolar Adenoma TGLS = 3-4 ]	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Thyroid Gland		Hyperplasia	Cystic, Moderate
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
		Polyp Stromal	
		[ Hyperplasia TGLS = 1-6,9 ]	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 275

TRT#: 6

SEX: Female

DAY ON TEST: 640

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F275

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymsus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Liver		Hemangiosarcoma	Multiple
[ Hemangiosarcoma TGLS = 4,5,6-3,9,10,11,12 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Congestion	Minimal
		Pigmentation	Minimal
[ Congestion TGLS = 8-4 ]			
* Nose	Respirat Epith	Degeneration	Mild
	Respirat Epith	Metaplasia	Squamous, Mild
Skin	Subcut Tiss	Edema	Moderate
[ Edema TGLS = 1-6,13 ]			
* Spleen		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 2-3 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 276

TRT#: 6

SEX: Female

DAY ON TEST: 676

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F276

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLS = 1-3,9 ]		
* Lung		Alveolar/Bronchiolar Carcinoma	
		Inflammation	Chronic, Moderate
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 4-4,10 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Hyperplasia TGLS = 3-4 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Spleen		Hyperplasia	Lymphoid, Marked
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 277

TRT#: 6

SEX: Female

DAY ON TEST: 683

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F277

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Bronchial	* Lymph Node, Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Bone		Hyperostosis	Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 3-2 ]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 3-2 ]		Pigmentation	Mild
* Mammary Gland		Adenoma	
[ Adenoma TGLS = 1-10 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Hyperplasia	Lymphoid, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 2-6,9 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 278

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F278

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Clitoral Gland		Pigmentation	Moderate
[ Pigmentation TGLS = 1-6 ]			
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
[ Hyperplasia TGLS = 2-6 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 2-6 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 3-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 279

TRT#: 6

DOSE: 1.25MGM3

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 729

HISTO: MZ031-F279

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Glandular	* Trachea
* Urinary Bladder			

MISSING

* Adrenal Medulla	* Clitoral Gland
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OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-9 ]			
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
Lymph Node	Pancreatic	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 3-11,1-6 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Minimal
[ Lymphoma Malignant TGLS = 3-11,1-6 ]			
* Lymph Node, Mandibular		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 3-11,1-6 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 3-11,1-6 ]			
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal
* Ovary		Cyst	
[ Cyst TGLS = 6-6 ]			
* Spleen		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 4-3 ]			
* Stomach, Forestomach		Hyperkeratosis	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 279

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 1.25MGM3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-F279

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Lymphoma Malignant	
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 5-10 ]			

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 280

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F280

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Bone		Hyperostosis	
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 2-9 ]	Pigmentation	Minimal
	[ Inflammation TGLS = 3-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
	[ Hyperplasia TGLS = 4-4 ]		
* Nose	Respirat Epith	Degeneration	Minimal
Skin		Melanoma Nos	
	Note: MELANOMA IN SKIN NEAR ANUS, SEE SLIDE5		
* Spleen		Hyperplasia	Lymphoid, Mild
	[ Hyperplasia TGLS = 1-3 ]		
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 281

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F281

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                          |                             |                          |
|----------------------------|--------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla        | * Bone Marrow               | * Brain                  |
| * Clitoral Gland           | * Esophagus              | * Gallbladder               | * Heart                  |
| * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic     | * Kidney                    | * Larynx                 |
| * Liver                    | * Lymph Node, Mesenteric | * Pancreas                  | * Parathyroid Gland      |
| * Salivary Glands          | * Spleen                 | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland          | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                          |                             |                          |

MISSING

- \* Intestine Large, Rectum

INSUFFICIENT TISSUE

- \* Lymph Node, Mediastinal

OBSERVATIONS

- |                          |                           |              |                      |
|--------------------------|---------------------------|--------------|----------------------|
| * Bone                   |                           | Hyperostosis |                      |
| * Lung                   |                           | Hemorrhage   | Minimal              |
|                          | Alveolus                  | Pigmentation | Minimal              |
|                          | [ Hemorrhage TGLS = 3-9 ] |              |                      |
| * Lymph Node, Bronchial  |                           | Pigmentation | Mild                 |
| * Lymph Node, Mandibular |                           | Hyperplasia  | Lymphoid, Mild       |
| * Mammary Gland          |                           | Hyperplasia  | Glandular, Minimal   |
| * Nose                   | Respirat Epith            | Inflammation | Suppurative, Minimal |
| * Ovary                  |                           | Cyst         |                      |
|                          | Note: HEMORRAGE INTO CYST |              |                      |
|                          | [ Cyst TGLS = 1-6 ]       |              |                      |
| * Pituitary Gland        | Pars Intermed             | Adenoma      |                      |
|                          | [ Adenoma TGLS = 4-8 ]    |              |                      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 282

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F282

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* 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	* Islets, Pancreatic	* Kidney
* Liver	* Mammary Gland	* Ovary	* Pancreas
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland	* Thymus
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INSUFFICIENT TISSUE

\* Larynx

OBSERVATIONS

* Brain	Hypothalamus	Compression	Marked
	Pons	Compression	Marked
	[ Compression TGLS = 4-1 ]		
	[ Compression TGLS = 4-1 ]		
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Lymphoma Malignant	
	Pancreatic	Pigmentation	Mild
	Renal	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 2-10,5-4,1-11 ]		
	[ Lymphoma Malignant TGLS = 2-10,5-4,1-11 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 2-10,5-4,1-11 ]		
* Lymph Node, Mandibular		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 2-10,5-4,1-11 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 2-10,5-4,1-11 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 282

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F282

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 3-8 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 283

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 1.25MGM3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/F283

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	Tissue NOS
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Lung		Inflammation	Chronic, Mild
* Lymph Node, Bronchial [ Hyperplasia TGLS = 5-2,1-6 ]		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular [ Hyperplasia TGLS = 5-2,1-6 ]		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mediastinal [ Hyperplasia TGLS = 5-2,1-6 ]		Hyperplasia	Lymphoid, Mild
* Spleen [ Hyperplasia TGLS = 2-3 ]		Hyperplasia	Lymphoid, Mild
* Uterus [ Hyperplasia TGLS = 3-6,9 ]	Endometrium	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 284

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F284

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Intestine Large, Rectum

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Intestine Large, Colon [ Lymphoma Malignant TGLS = 2-5 ]		Lymphoma Malignant	
* Intestine Small, Ileum [ Lymphoma Malignant TGLS = 2-5,1-5 ]		Lymphoma Malignant	
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Minimal
		Pigmentation	Minimal
* Lymph Node, Bronchial [ Pigmentation TGLS = 3-4 ]		Pigmentation	Minimal
* Lymph Node, Mesenteric		Lymphoma Malignant	
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 285

TRT#: 8

SEX: Female

DAY ON TEST: 626

DOSE: 1.25MGM3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/F285

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* 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
* Liver	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex	Spindle Cell	Hyperplasia	Mild
* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Lymph Node, Mandibular		Sarcoma	Metastatic (Skin)
[ Sarcoma TGLS = 2-6 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
Skin	Pinna	Sarcoma	
[ Sarcoma TGLS = 1-9 ]			
* Spleen		Hematopoietic Cell Proliferation	Marked
[ Hematopoietic Cell Proliferation TGLS = 3-3 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 286

TRT#: 6

SEX: Female

DAY ON TEST: 726

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F286

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Liver	Hepatocyte	Vacuolization Cytoplasmic	Mild
* Lung	Alveolus	Inflammation	Chronic, Minimal
		Pigmentation	Mild
[ Inflammation TGLS = 4-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
* Lymph Node, Mandibular		Lymphoma Malignant	
* Ovary		Cyst	
[ Cyst TGLS = 1-6 ]			
* Pancreas		Inflammation	Chronic, Minimal
* Thyroid Gland		Hyperplasia	Cystic, Moderate
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

<b>ANIMAL ID:</b> 287	<b>TRT#:</b> 6 <b>DOSE:</b> 1.25MGM3	<b>SEX:</b> Female <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 603 <b>HISTO:</b> MZ031/F287
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**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Islets, Pancreatic	* Larynx
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Thyroid Gland	* Trachea
* Urinary Bladder			

**OBSERVATIONS**

* Adrenal Cortex		Lymphoma Malignant	
* Bone Marrow		Necrosis	Marked
* Gallbladder		Lymphoma Malignant	
* Intestine Large, Cecum		Lymphoma Malignant	
* Intestine Large, Colon		Lymphoma Malignant	
* Intestine Large, Rectum		Lymphoma Malignant	
* Intestine Small, Duodenum		Lymphoma Malignant	
* Intestine Small, Ileum		Lymphoma Malignant	
* Intestine Small, Jejunum		Lymphoma Malignant	
* Kidney		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 11-3 ]			
* Liver		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 8,9-3,16 ]			
* Lung		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 16-4,17 ]			
Lymph Node	Alveolus	Pigmentation	Minimal
	Axillary	Lymphoma Malignant	
	Deep Cervical	Lymphoma Malignant	
	Iliac	Lymphoma Malignant	
	Inguinal	Lymphoma Malignant	
	Pancreatic	Lymphoma Malignant	
	Renal	Lymphoma Malignant	

Note: LYMPH MAL TGLs = 6-5;18-11  
Note: LYMPH MAL TGLs = 6-5;18-11

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 287

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 603

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F287

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: LYMPH MAL TGLs = 6-5;18-11

Note: LYMPH MAL TGLs = 6-5;18-11

Note: LYMPH MAL TGLs = 6-5;18-11

Note: LYMPH MAL TGLs = 6-5;18-11

[ Lymphoma Malignant TGLs = 2-12,14;12-15;1-6;3-13;14-2;10-9;15-4;7-5,10 ]

[ Lymphoma Malignant TGLs = 2-12,14;12-15;1-6;3-13;14-2;10-9;15-4;7-5,10 ]

[ Lymphoma Malignant TGLs = 2-12,14;12-15;1-6;3-13;14-2;10-9;15-4;7-5,10 ]

[ Lymphoma Malignant TGLs = 2-12,14;12-15;1-6;3-13;14-2;10-9;15-4;7-5,10 ]

[ Lymphoma Malignant TGLs = 2-12,14;12-15;1-6;3-13;14-2;10-9;15-4;7-5,10 ]

[ Lymphoma Malignant TGLs = 2-12,14;12-15;1-6;3-13;14-2;10-9;15-4;7-5,10 ]

\* Lymph Node, Bronchial

Lymphoma Malignant  
Pigmentation

Minimal

Note: LYMPH MAL TGLs = 7-5,10

[ Lymphoma Malignant TGLs = 12-15;1-6;3-13;14-2;10-9;15-4;6-5;18-11;2-12,14 ]

\* Lymph Node, Mandibular

Lymphoma Malignant

Note: LYMPH MAL TGLs = 6-5;18-11

[ Lymphoma Malignant TGLs = 2-12,14;12-15;1-6;3-13;14-2;10-9;15-4;7-5,10 ]

\* Lymph Node, Mediastinal

Lymphoma Malignant

Note: LYMPH MAL TGLs = 6-5;18-11

[ Lymphoma Malignant TGLs = 2-12,14;12-15;1-6;3-13;14-2;10-9;15-4;7-5,10 ]

\* Lymph Node, Mesenteric

Lymphoma Malignant

Note: LYMPH MAL TGLs = 6-5;18-11

[ Lymphoma Malignant TGLs = 2-12,14;12-15;1-6;3-13;14-2;10-9;15-4;7-5,10; ]

\* Ovary

Lymphoma Malignant

\* Spleen

Lymphoma Malignant

[ Lymphoma Malignant TGLs = 4,5-3 ]

\* Stomach, Forestomach

Lymphoma Malignant

\* Stomach, Glandular

Lymphoma Malignant

\* Thymus

Lymphoma Malignant

\* Uterus

Endometrium

Hyperplasia

Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 287

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 603

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F287

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Animal Note: TGL "SUBLINGUAL LN" IS LISTED AS DEEP CERVICAL

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 288

TRT#: 6

SEX: Female

DAY ON TEST: 690

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F288

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Liver		Basophilic Focus	
[ Basophilic Focus TGLS = 5-3 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hemorrhage	Moderate
		Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Moderate
[ Alveolar/Bronchiolar Carcinoma TGLS = 2-4, 11 ]		Pigmentation	Mild
[ Hemorrhage TGLS = 4-4, 10 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Pigmentation TGLS = 3-4 ]			
* Lymph Node, Mediastinal		Alveolar/Bronchiolar Carcinoma	Metastatic (Uncertain Primary Site)
* Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Thymus		Alveolar/Bronchiolar Carcinoma	Metastatic (Uncertain Primary Site)
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 289

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F289

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Bone		Hyperostosis	
* Liver		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 1-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Nose	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Moderate
* Spleen		Hematopoietic Cell Proliferation	Mild
* Stomach, Forestomach		Hyperkeratosis	Minimal
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 290

TRT#: 6

SEX: Female

DAY ON TEST: 583

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F290

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Rectum
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mandibular

AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Bone		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 7,8-9,10 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolus	Pigmentation	Minimal
[ Alveolar/Bronchiolar Carcinoma TGLS = 2,3-4,12,13 ]			
* Lymph Node, Bronchial		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
		Pigmentation	Minimal
[ Alveolar/Bronchiolar Carcinoma TGLS = 5-4 ]			
* Lymph Node, Mediastinal		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 6-2 ]			
* Nose	Olfactory Epi	Degeneration	Minimal
* Stomach, Forestomach		Hyperkeratosis	Mild
* Thymus		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 1-2 ]			
Tissue NOS		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 4-11 ]			
* Uterus		Polyp Stromal	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 290

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 583

**DOSE:** 1.25MGM3

**DISP:** Natural Death

**HISTO:** MZ031/F290

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 291

TRT#: 6

SEX: Female

DAY ON TEST: 203

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F291

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex  
\* Esophagus  
\* Intestine Large, Colon  
\* Intestine Small, Jejunum  
\* Liver  
\* Ovary  
\* Spleen  
\* Thyroid Gland

\* Adrenal Medulla  
\* Gallbladder  
\* Intestine Large, Rectum  
\* Islets, Pancreatic  
\* Lymph Node, Mesenteric  
\* Pancreas  
\* Stomach, Forestomach  
\* Trachea

\* Brain  
\* Heart  
\* Intestine Small, Duodenum  
\* Kidney  
\* Mammary Gland  
\* Pituitary Gland  
\* Stomach, Glandular  
\* Urinary Bladder

\* Clitoral Gland  
\* Intestine Large, Cecum  
\* Intestine Small, Ileum  
\* Larynx  
\* Nose  
\* Salivary Glands  
\* Thymus  
\* Uterus

**MISSING**

\* Bone Marrow

\* Lymph Node, Bronchial

\* Lymph Node, Mediastinal

\* Parathyroid Gland

**INSUFFICIENT TISSUE**

\* Bone

**OBSERVATIONS**

\* Lung  
\* Lymph Node, Mandibular  
[ Congestion TGLS = 1,2-6 ]  
Spinal Cord

Alveolus

Pigmentation  
Congestion

Minimal  
Mild

Hemorrhage

Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 292

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F292

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

* Lymph Node, Mediastinal	* Thymus
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**OBSERVATIONS**

* Lung	Alveolar Epith	Hyperplasia Inflammation	Minimal Chronic, Minimal
[ Inflammation TGLS = 2-4 ]			
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Mild
[ Pigmentation TGLS = 1-4 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 293

TRT#: 6

SEX: Female

DAY ON TEST: 683

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F293

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

INSUFFICIENT TISSUE

* Lymph Node, Mediastinal	* Thymus
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OBSERVATIONS

* Intestine Small, Ileum [ Lymphoma Malignant TGLS = 7-9 ]		Lymphoma Malignant	
* Kidney [ Nephropathy TGLS = 4-3 ]		Nephropathy	Marked
* Liver [ Amyloid Deposition TGLS = 3-3 ]	Sinusoid	Amyloid Deposition	Moderate
* Lung Note: TGL 8 = NCL	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric [ Lymphoma Malignant TGLS = 6-5 ]		Lymphoma Malignant	
* Ovary [ Cyst TGLS = 1-6 ]		Cyst	
* Spleen [ Hematopoietic Cell Proliferation TGLS = 2-3 ]		Hematopoietic Cell Proliferation	Moderate
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 294

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 317

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F294

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

\* Parathyroid Gland

**OBSERVATIONS**

* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
[ Hyperplasia TGLS = 2-8 ]			
Skin		Alopecia	Minimal
[ Alopecia TGLS = 1-9 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 295

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F295

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 1-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Pigmentation TGLS = 2-4 ]			
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Mild
	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 296

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 1.25MGM3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-F296

**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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

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

* Bone		Hyperostosis	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	[ Pigmentation TGLS = 4-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Pigmentation TGLS = 3-4 ]		
* Nose	Olfactory Epi	Degeneration	Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Marked
	[ Angiectasis TGLS = 5-8 ]		
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
	[ Hyperplasia TGLS = 2-9 ]		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 297

TRT#: 6

SEX: Female

DAY ON TEST: 711

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F297

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Kidney	* Larynx
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Intestine Small, Ileum	* Lymph Node, Mediastinal	* Parathyroid Gland	
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OBSERVATIONS

* Islets, Pancreatic		Hyperplasia	Minimal
* Liver		Hepatocellular Carcinoma	
		Lymphoma Malignant	
	[ Hepatocellular Carcinoma TGLS = 1,2-10 ]		
	[ Lymphoma Malignant TGLS = 3-3 ]		
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Minimal
	[ Pigmentation TGLS = 5-4 ]		
Lymph Node	Pancreatic	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-5 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
	[ Pigmentation TGLS = 6-4 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 4-5 ]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Thyroid Gland	Follicular Cel	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 298

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F298

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
[ Hyperplasia TGLS = 3-4 ]			
* Pituitary Gland	Pars Distalis	Angiectasis	Minimal
Skin	Subcut Tiss	Hemangiosarcoma	
[ Hemangiosarcoma TGLS = 1-10 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 2-9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 299

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 200

**DOSE:** 1.25MGM3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-F299

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Kidney

\* Nose

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**MISSING**

\* Lymph Node, Mandibular

\* Lymph Node, Mediastinal

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**OBSERVATIONS**

\* Lung

Alveolus

Pigmentation

Minimal

\* Lymph Node, Bronchial

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 300

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F300

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Bone Marrow             | * Brain                     |
| * Clitoral Gland         | * 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                 | * Liver                    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   |
| * Lymph Node, Mesenteric | * Mammary Gland            | * Nose                    | * Ovary                     |
| * Pancreas               | * Parathyroid Gland        | * Salivary Glands         | * Spleen                    |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          | * Uterus                  |                             |

OBSERVATIONS

- |                             |                |              |                   |
|-----------------------------|----------------|--------------|-------------------|
| * Bone                      |                | Hyperostosis |                   |
| * Lung                      | Alveolar Epith | Hyperplasia  | Minimal           |
|                             |                | Inflammation | Chronic, Minimal  |
|                             | Alveolus       | Pigmentation | Minimal           |
| * Lymph Node, Bronchial     |                | Hyperplasia  | Lymphoid, Minimal |
|                             |                | Pigmentation | Mild              |
| [ Pigmentation TGLS = 1-4 ] |                |              |                   |
| * Pituitary Gland           | Pars Distalis  | Hyperplasia  | Moderate          |
| [ Hyperplasia TGLS = 2-8 ]  |                |              |                   |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 301	<b>TRT#:</b> 8	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 459
	<b>DOSE:</b> 1.25MGM3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZ031/F301

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

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**OBSERVATIONS**

* Liver		Inflammation	Chronic, Mild
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
* Uterus	Endometrium	Hyperplasia	Mild
	[ Hyperplasia TGLS = 1-6,9 ]		

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 302

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 200

**DOSE:** 1.25MGM3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-F302

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Nose

**OBSERVATIONS**

* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Moderate
[ Hyperplasia TGLS = 3-4,2-2 ]			
* Lymph Node, Mediastinal		Hyperplasia	Moderate
[ Hyperplasia TGLS = 3-4,2-2 ]			
* Spleen		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 1-3 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 303

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F303

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Intestine Large, Rectum	* Parathyroid Gland
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INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Kidney		Nephropathy	Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
[ Hyperplasia TGLS = 2-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 2-4 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 304

TRT#: 6

SEX: Female

DAY ON TEST: 652

DOSE: 1.25MGM3

DISP: Natural Death

HISTO: MZ031/F304

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Colon
* Intestine Large, Rectum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mediastinal

AUTO PRECLUDES DIAG.

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

INSUFFICIENT TISSUE

\* Lymph Node, Mandibular

OBSERVATIONS

* Brain	Hypothalamus	Compression	Mild
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Inflammation	Chronic, Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 6-4,9 ]	Pigmentation	Minimal
* Lymph Node, Bronchial		Congestion	Mild
	[ Congestion TGLS = 5-4 ]	Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Pigmentation	Mild
	[ Hyperplasia TGLS = 3-5 ]	Hyperplasia	Lymphoid, Marked
* Nose	Respirat Epith	Degeneration	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 7-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 305

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 200

**DOSE:** 1.25MGM3 LUNGTX

**DISP:** Scheduled Sacrifice

**HISTO:** MZO31-F305

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Kidney

\* Lymph Node, Bronchial

\* Lymph Node, Mediastinal

\* Nose

**OBSERVATIONS**

\* Lung

Alveolus

Pigmentation

Minimal

\* Lymph Node, Mandibular

Hyperplasia

Lymphoid, Minimal

[ Hyperplasia TGLS = 1-9 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 306

TRT#: 6

SEX: Female

DAY ON TEST: 692

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F306

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Clitoral Gland [ Ectasia TGLS = 1-6 ]		Ectasia	Mild
* Liver [ Hepatocellular Carcinoma TGLS = 4-10 ] [ Hyperplasia TGLS = 5-9 ]	Hepatocyte	Hepatocellular Carcinoma Hyperplasia	Mild
* Lung [ Alveolar/Bronchiolar Carcinoma TGLS = 7-11 ] [ Inflammation TGLS = 8-4 ]	Alveolus	Alveolar/Bronchiolar Carcinoma Inflammation Pigmentation	Chronic, Marked Minimal
* Lymph Node, Bronchial		Alveolar/Bronchiolar Carcinoma Hyperplasia Pigmentation	Metastatic (Lung) Lymphoid, Moderate Mild
* Lymph Node, Mesenteric [ Congestion TGLS = 6-5 ]		Congestion	Marked
* Uterus [ Hyperplasia TGLS = 2-12 ]	Endometrium	Hyperplasia	Cystic, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 306

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 692

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F306

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 307

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F307

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild

[ Hyperplasia TGLS = 1-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 308

TRT#: 8

SEX: Female

DAY ON TEST: 46

DOSE: 1.25MGM3 LUNGTX

DISP: Natural Death

HISTO: MZ031/F308

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Brain  
\* Islets, Pancreatic  
\* Lung  
\* Pancreas  
\* Thymus

\* Adrenal Medulla  
\* Clitoral Gland  
\* Kidney  
\* Lymph Node, Bronchial  
\* Pituitary Gland  
\* Thyroid Gland

\* Bone  
\* Esophagus  
\* Larynx  
\* Mammary Gland  
\* Salivary Glands  
\* Trachea

\* Bone Marrow  
\* Heart  
\* Liver  
\* Ovary  
\* Spleen  
\* Uterus

MISSING

\* Lymph Node, Mediastinal

\* Lymph Node, Mesenteric

\* Parathyroid Gland

AUTO PRECLUDES DIAG.

\* Gallbladder  
\* Intestine Small, Duodenum  
\* Stomach, Glandular

\* Intestine Large, Cecum  
\* Intestine Small, Ileum  
\* Urinary Bladder

\* Intestine Large, Colon  
\* Intestine Small, Jejunum

\* Intestine Large, Rectum  
\* Stomach, Forestomach

OBSERVATIONS

\* Lymph Node, Mandibular  
\* Nose

Respirat Epith

Hyperplasia  
Inflammation

Lymphoid, Moderate  
Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 310

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 1.25MG/3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/F310

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Ovary		Cyst	
[ Cyst TGLS = 1-6 ]			
* Uterus	Endometrium	Hyperplasia	Mild
[ Hyperplasia TGLS = 2-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 311

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F311

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Cortex		Lymphoma Malignant	
* Liver		Hepatocellular Carcinoma	
		Lymphoma Malignant	
[ Hepatocellular Carcinoma TGLS = 3-13 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Mild
Lymph Node	Iliac	Lymphoma Malignant	
	Pancreatic	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 2-11,12,4-9,10 ]			
[ Lymphoma Malignant TGLS = 2-11,12,4-9,10 ]			
[ Lymphoma Malignant TGLS = 2-11,12,4-9,10 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 5-4 ]			
* Lymph Node, Mesenteric		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 2-11,12,4-9,10 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Mild
* Ovary		Cyst	
* Spleen		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 1-3 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 311

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F311

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Stomach, Forestomach

Hyperkeratosis

Mild

\* Stomach, Glandular

Inflammation

Suppurative, Mild

\* Thymus

Lymphoma Malignant

\* Thyroid Gland

Hyperplasia

Cystic, Minimal

\* Uterus

Endometrium

Hyperplasia

Cystic, Moderate

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 312

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F312

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
Note: TGL 4 = NCL			
[ Hepatocellular Carcinoma TGLS = 5-11 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Pigmentation	Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
* Ovary		Cyst	
[ Cyst TGLS = 2-6 ]			
* Spleen		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 1-3,9 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 3-6,12 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 313

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F313

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-10 ]			
* Lung		Alveolar/Bronchiolar Carcinoma	
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Minimal
[ Alveolar/Bronchiolar Carcinoma TGLS = 4-4,9 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
* Mammary Gland		Hyperplasia	Glandular, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 314

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F314

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Bone Marrow             | * Brain                     |
| * Clitoral Gland         | * 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                 | * Lymph Node, Mesenteric   | * Ovary                   | * Pancreas                  |
| * Parathyroid Gland      | * Salivary Glands          | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

MISSING

- \* Lymph Node, Mediastinal

OBSERVATIONS

- |   |                |                                |                      |
|---|----------------|--------------------------------|----------------------|
| * Bone  |                | Hyperostosis                   |                      |
| * Liver   |                | Inflammation                   | Chronic, Focal, Mild |
| [ Inflammation TGLS = 3-10 ]                    |                |                                |                      |
| * Lung  |                | Alveolar/Bronchiolar Carcinoma |                      |
|   |                | Inflammation                   | Chronic, Minimal     |
|   | Alveolus       | Pigmentation                   | Mild                 |
| [ Alveolar/Bronchiolar Carcinoma TGLS = 4-4,9 ] |                |                                |                      |
| * Lymph Node, Bronchial                         |                | Hyperplasia                    | Lymphoid, Mild       |
|   |                | Pigmentation                   | Minimal              |
| [ Hyperplasia TGLS = 5-4 ]                      |                |                                |                      |
| * Lymph Node, Mandibular                        |                | Hyperplasia                    | Lymphoid, Marked     |
| [ Hyperplasia TGLS = 5-4 ]                      |                |                                |                      |
| * Mammary Gland                                 |                | Hyperplasia                    | Glandular, Minimal   |
| [ Hyperplasia TGLS = 1-6 ]                      |                |                                |                      |
| * Nose  | Respirat Epith | Inflammation                   | Suppurative, Minimal |
| * Pituitary Gland                               | Pars Distalis  | Adenoma                        |                      |
| [ Adenoma TGLS = 6-8 ]                          |                |                                |                      |
| * Thyroid Gland                                 |                | Hyperplasia                    | Cystic, Mild         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 314

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 1.25MGM3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-F314

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 316

TRT#: 6

SEX: Female

DAY ON TEST: 720

DOSE: 1.25MGM3

DISP: Moribund Sacrifice

HISTO: MZ031/F316

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* 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	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Thyroid Gland	* Trachea		

MISSING

\* Urinary Bladder

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Liver	Hepatocyte	Hepatocellular Adenoma Necrosis	Mild
	[ Hepatocellular Adenoma TGLS = 5-10 ]		
	[ Necrosis TGLS = 6,7-3,10 ]		
* Lung	Alveolus Alveolus	Pigmentation Proteinosis	Minimal Minimal
* Lymph Node, Bronchial		Pigmentation	Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mediastinal		Lymphoma Malignant	
* Lymph Node, Mesenteric		Lymphoma Malignant	
* Nose	Respirat Epith	Inflammation	Chronic, Minimal
* Ovary		Lymphoma Malignant	
* Pituitary Gland	Pars Distalis	Angiectasis	Marked
	[ Angiectasis TGLS = 10-8 ]		
* Salivary Glands		Lymphoma Malignant	
Skin		Hemangiosarcoma	
	[ Hemangiosarcoma TGLS = 1-9 ]		
* Spleen		Hemangiosarcoma	
	[ Hemangiosarcoma TGLS = 4-3 ]	Lymphoma Malignant	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 316

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 720

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F316

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Lymphoma Malignant TGLS = 3-3 ]

\* Stomach, Forestomach

Lymphoma Malignant

\* Stomach, Glandular

Lymphoma Malignant

\* Thymus

Lymphoma Malignant

\* Uterus

Endometrium

Hyperplasia

Cystic, Moderate

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 317

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 510

**DOSE:** 1.25MGM3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/F317

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

* Lymph Node, Mediastinal	* Parathyroid Gland
---------------------------	---------------------

**OBSERVATIONS**

* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal
* Stomach, Forestomach		Hyperkeratosis	Mild
		Inflammation	Suppurative, Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 318

TRT#: 6

SEX: Female

DAY ON TEST: 733

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F318

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Liver		Hemangiosarcoma	Metastatic (Uterus)
Note: DOESN'T APPEAR TO BE MET FROM UTERUS [ Hemangiosarcoma TGLS = 2-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Nose	Respirat Epith	Degeneration	Minimal
* Spleen		Hyperplasia	Lymphoid, Mild
* Uterus		Hemangiosarcoma	
Note: DOESN'T APPEAR TO BE MET FROM LIVER [ Hemangiosarcoma TGLS = 1-10 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 319

TRT#: 6

SEX: Female

DAY ON TEST: 732

DOSE: 1.25MGM3

DISP: Terminal Sacrifice

HISTO: MZ031-F319

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone		Hyperostosis	
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
[ Proteinosis TGLS = 3-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal
* Spleen		Hyperplasia	Macrophage, Mild
[ Hyperplasia TGLS = 2-3 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 1-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 320

TRT#: 8

SEX: Female

DAY ON TEST: 162

DOSE: 1.25MGM3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/F320

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex  
\* Brain  
\* Heart  
\* Intestine Small, Duodenum  
\* Kidney  
\* Mammary Gland  
\* Salivary Glands  
\* Thymus  
\* Uterus

\* Adrenal Medulla  
\* Clitoral Gland  
\* Intestine Large, Cecum  
\* Intestine Small, Ileum  
\* Larynx  
\* Nose  
\* Spleen  
\* Thyroid Gland

\* Bone  
\* Esophagus  
\* Intestine Large, Colon  
\* Intestine Small, Jejunum  
\* Liver  
\* Pancreas  
\* Stomach, Forestomach  
\* Trachea

\* Bone Marrow  
\* Gallbladder  
\* Intestine Large, Rectum  
\* Islets, Pancreatic  
\* Lymph Node, Mesenteric  
\* Pituitary Gland  
\* Stomach, Glandular  
\* Urinary Bladder

**MISSING**

\* Lymph Node, Bronchial

\* Lymph Node, Mandibular

\* Lymph Node, Mediastinal

\* Parathyroid Gland

**OBSERVATIONS**

\* Lung  
\* Ovary

Alveolus

Pigmentation  
Teratoma Benign

Minimal

[ Teratoma Benign TGLS = 1-6 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 401

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G401

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

**MISSING**

* Intestine Large, Rectum	* Parathyroid Gland
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**OBSERVATIONS**

* Kidney	Medulla	Cyst	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
	[ Hyperplasia TGLS = 1-4 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 402

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G402

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Larynx	* Lymph Node, Mediastinal
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OBSERVATIONS

* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Liver		Inflammation	Chronic, Focal, Minimal
* Lung		Inflammation	Chronic, Minimal
* Lymph Node, Bronchial	Alveolus	Pigmentation	Mild
		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Pigmentation TGLS = 3-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-8 ]			
* Spleen		Hyperplasia	Lymphoid, Mild
Note: [ LYMPH MAL ] TGLs = 1-3			
[ Hyperplasia TGLS = 1-3 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 2-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 403

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G403

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mediastinal	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	

MISSING

\* Urinary Bladder

OBSERVATIONS

* Bone		Hyperostosis	Mild
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Pigmentation TGLS = 2-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Marked
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 404

TRT#: 10

SEX: Female

DAY ON TEST: 736

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G404

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Salivary Glands	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Parathyroid Gland

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 5-10,6-4,10 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 4-4 ]			
* Nose	Olfactory Epi	Degeneration	Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Minimal
* Spleen		Hemangiosarcoma	
[ Hemangiosarcoma TGLS = 1-3 ]			
* Stomach, Forestomach		Hyperkeratosis	Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 3-6 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 404

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031/G404

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 405

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G405

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Moderate
* Clitoral Gland		Pigmentation	Minimal
* Lung		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
Lymph Node	Pancreatic	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 3-10,1-6 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Mild
[ Lymphoma Malignant TGLS = 3-10,1-6 ]			
[ Pigmentation TGLS = 5-4 ]			
* Lymph Node, Mandibular		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 3-10,1-6 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 3-10,1-6 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Spleen		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 2-3,9 ]			
* Thymus		Lymphoma Malignant	
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 406	<b>TRT#:</b> 12	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 200
	<b>DOSE:</b> 2.5MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZ031-G406

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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<b>NORMAL</b>			
* Kidney	* Nose		

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<b>MISSING</b>			
* Lymph Node, Mediastinal			

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<b>OBSERVATIONS</b>			
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal

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

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 407

TRT#: 10

SEX: Female

DAY ON TEST: 451

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G407

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Intestine Large, Rectum
* Islets, Pancreatic	* Kidney	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Parathyroid Gland

AUTO PRECLUDES DIAG.

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

INSUFFICIENT TISSUE

\* Clitoral Gland

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3-3,10 ]			
* Lung	Alveolar Epith	Hepatocellular Carcinoma	Metastatic (Uncertain Primary Site)
	Alveolus	Hyperplasia	Minimal
		Pigmentation	Minimal
[ Hepatocellular Carcinoma TGLS = 4-9 ]			
* Lymph Node, Bronchial		Congestion	Mild
		Pigmentation	Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
[ Hematopoietic Cell Proliferation TGLS = 1-3 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 408

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G408

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Bronchial	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mesenteric

OBSERVATIONS

* Intestine Large, Cecum		Hyperplasia	Lymphoid, Moderate
* Liver		Clear Cell Focus	
* Lung		Alveolar/Bronchiolar Carcinoma	
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Minimal
	[ Alveolar/Bronchiolar Carcinoma TGLS = 3-4,9 ]		
* Lym Node Bron			
	Note: TGL 2 = NCL		
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Minimal
	[ Hyperplasia TGLS = 1-2 ]		
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Marked
	[ Hyperplasia TGLS = 1-2 ]	Pigmentation	Mild
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Ovary		Cyst	
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
* Spleen		Hyperplasia	Lymphoid, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 409

TRT#: 10

SEX: Female

DAY ON TEST: 315

DOSE: 2.5MG/M3

DISP: Accidentally Killed

HISTO: MZ031/G409

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Bone Marrow	* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Lung		Inflammation	Chronic Active, Mild
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 2-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Minimal
[ Hyperplasia TGLS = 4-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 4-4 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 1-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 410

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 36

**DOSE:** 2.5MG/M3 LUNGTX

**DISP:** Natural Death

**HISTO:** MZ031/G410

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

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

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

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 412

TRT#: 10

SEX: Female

DAY ON TEST: 640

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G412

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* 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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Brain	Hypothalamus	Compression	Mild
Eye			
Note: TGL5"EYE" IS HARDERIAN GLAND N.B.			
Harderian Gland		Adenoma	
[ Adenoma TGLS = 5-9 ]			
* Liver		Hepatocellular Adenoma	
Note: CARCINOMA BASED ON INVASION OF VESSEL			
[ Hepatocellular Adenoma TGLS = 2-3 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 3-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
[ Hyperplasia TGLS = 4-4 ]			
* Ovary		Cyst	
[ Cyst TGLS = 1-6 ]			
* Pancreas		Infiltration Cellular	Lymphocyte, Mild
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 412

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 640

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G412

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 6-8 ]

\* Thyroid Gland

Hyperplasia

Cystic, Minimal

\* Uterus

Endometrium

Hyperplasia

Cystic, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 413

TRT#: 10

SEX: Female

DAY ON TEST: 570

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G413

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	* Islets, Pancreatic	* Kidney
* Larynx	* 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	

MISSING

\* Clitoral Gland

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 1-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
		Pigmentation	Mild
* Lymph Node, Bronchial			
[ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Nose	Respirat Epith	Degeneration	Minimal
* Spleen		Hyperplasia	Lymphoid, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 414

TRT#: 12

SEX: Female

DAY ON TEST: 566

DOSE: 2.5MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/G414

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* 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

OBSERVATIONS

* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3-3,10,11 ]			
* Lung	Alveolus	Inflammation	Chronic, Minimal
		Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
[ Hyperplasia TGLS = 4-4 ]			
* Lymph Node, Mandibular		Congestion	Mild
		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 4-4 ]			
* Nose	Respirat Epith	Degeneration	Minimal
* Spleen		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 1-3 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 2-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 415

TRT#: 10

SEX: Female

DAY ON TEST: 538

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G415

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* 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	* Liver	* 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

Blood			
Note: TGL6"BONE" IS MARROW LESION, N.B.			
* Bone Marrow		Hemangiosarcoma	Metastatic (Spleen)
[ Hemangiosarcoma TGLS = 6-7,12 ]			
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 5-4 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
* Spleen		Hemangiosarcoma	
[ Hemangiosarcoma TGLS = 1,2-9,10 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 3-6,11 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 416

TRT#: 10

SEX: Female

DAY ON TEST: 584

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G416

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

Ear		Fibrosarcoma	
[ Fibrosarcoma TGLS = 10-9 ]			
* Heart		Inflammation	Chronic Active, Minimal
[ Inflammation TGLS = 6-3 ]			
* Liver		Inflammation	Chronic, Focal, Minimal
[ Inflammation TGLS = 3-3 ]			
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Pigmentation TGLS = 9-4 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 8-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 1-6 ]			
* Spleen		Hematopoietic Cell Proliferation	Marked
[ Hematopoietic Cell Proliferation TGLS = 2-3 ]			
* Thyroid Gland		Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 7-2 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 416

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 584

**DOSE:** 2.5MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/G416

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 417

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G417

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 5-9 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 4-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
[ Hyperplasia TGLS = 3-4 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 3-4 ]			
* Ovary		Cyst	
[ Cyst TGLS = 1-6 ]			
* Spleen		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 2-3 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 418

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G418

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Lymph Node, Mandibular
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

INSUFFICIENT TISSUE

\* Lymph Node, Bronchial

OBSERVATIONS

* Bone		Hyperostosis	
* Intestine Large, Cecum		Hyperplasia	Lymphoid, Mild
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Mild
* Liver		Hemangiosarcoma	
[ Hemangiosarcoma TGLS = 5-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
[ Pigmentation TGLS = 8-4 ]			
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mesenteric		Hemangiosarcoma	Metastatic (Liver)
		Hyperplasia	Lymphoid, Mild
[ Hemangiosarcoma TGLS = 2-5 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
[ Hematopoietic Cell Proliferation TGLS = 1-3 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Marked
[ Hyperplasia TGLS = 3-10,4-6 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 418

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-G418

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 419

TRT#: 10

SEX: Female

DAY ON TEST: 587

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G419

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mandibular

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Liver [ Fatty Change TGLS = 4-3 ]	Hepatocyte	Fatty Change	Mild
* Lung [ Hyperplasia TGLS = 5-4 ]	Alveolar Epith Alveolus	Hyperplasia Pigmentation	Minimal Mild
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Mild
* Ovary [ Cyst TGLS = 2,6-6 ]		Cyst	
* Uterus [ Hemangioma TGLS = 3-9 ]	Endometrium	Hemangioma Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 420

TRT#: 10

SEX: Female

DAY ON TEST: 321

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G420

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Lung	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Minimal
	[ Lymphoma Malignant TGLS = 5-4,4-9 ]		
	[ Pigmentation TGLS = 5-4 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 5-4,4-9 ]		
* Spleen		Lymphoma Malignant	
* Thymus		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 3-2,9 ]		
* Uterus	Endometrium	Hyperplasia	Cystic, Marked
	[ Hyperplasia TGLS = 1-6,10 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 421

TRT#: 10

SEX: Female

DAY ON TEST: 326

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G421

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Liver	* Mammary Gland	* Nose	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Uterus		

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Parathyroid Gland	* Pituitary Gland
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OBSERVATIONS

* Gallbladder		Inflammation	Suppurative, Moderate
* Kidney		Inflammation	Chronic, Moderate
[ Inflammation TGLS = 6-3 ]			
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	Alveolus	Proteinosis	Minimal
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 4-9 ]			
* Lymph Node, Bronchial		Pigmentation	Minimal
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 5-2 ]			
* Ovary		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 7-5,6,10 ]			
* Pancreas		Congestion	Mild
		Inflammation	Suppurative, Mild
[ Congestion TGLS = 3-5 ]			
Skin	Subcut Tiss	Inflammation	Suppurative, Mild
[ Inflammation TGLS = 1-6 ]			
* Spleen		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 2-3 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 421	<b>TRT#:</b> 10 <b>DOSE:</b> 2.5MG/M3	<b>SEX:</b> Female <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 326 <b>HISTO:</b> MZ031/G421
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<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>		
* Urinary Bladder	Inflammation	Suppurative, Moderate

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



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 422

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G422

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymsus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Liver		Hepatocellular Adenoma Lymphoma Malignant	
[ Hepatocellular Adenoma TGLS = 4-3 ]			
* Lung	Alveolar Epith	Hyperplasia Inflammation Pigmentation	Minimal Chronic, Mild Mild
[ Inflammation TGLS = 8-4 ]			
Lymph Node	Pancreatic	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 3-11 ]			
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Mild
[ Pigmentation TGLS = 7-4 ]			
* Nose	Olfactory Epi Respirat Epith Respirat Epith	Degeneration Inflammation Metaplasia Lymphoma Malignant	Mild Suppurative, Minimal Squamous, Minimal
* Spleen			
[ Lymphoma Malignant TGLS = 1,2-9 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 5-6,10,6-6,10 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

<b>ANIMAL ID:</b> 423	<b>TRT#:</b> 10 <b>DOSE:</b> 2.5MG/M3	<b>SEX:</b> Female <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 19 <b>HISTO:</b> MZ031/G423
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ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Bronchial
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mediastinal

**AUTO PRECLUDES DIAG.**

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

* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Mandibular		Inflammation	Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 424

TRT#: 10

SEX: Female

DAY ON TEST: 736

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G424

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Intestine Large, Rectum	* Parathyroid Gland
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OBSERVATIONS

* Bone		Hyperostosis	
* Intestine Large, Cecum		Hyperplasia	Lymphoid, Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
	[ Inflammation TGLS = 5-4 ]	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
	[ Pigmentation TGLS = 4-4 ]	Pigmentation	Mild
* Nose	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Mild
* Ovary		Cyst	
	[ Cyst TGLS = 3-6 ]		
Skin		Sarcoma	
	Note: UNDIFFERENTIATED SARCOMA IN SUBQ		
	[ Sarcoma TGLS = 1-9 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland		Hyperplasia	Cystic, Marked
Tissue NOS			
	Note: TGL TNOS=SUBQ OF SKIN, NB		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 424

**TRT#:** 10  
**DOSE:** 2.5MG/M3

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 736  
**HISTO:** MZ031-G424

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Uterus	Endometrium	Hyperplasia Sarcoma Stromal	Cystic, Minimal
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[ Sarcoma Stromal TGLS = 2-10 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 425

TRT#: 10

SEX: Female

DAY ON TEST: 736

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G425

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Clitoral Gland
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Bone Marrow		Necrosis	Mild
* Brain	Hypothalamus	Compression	
[ Compression TGLS = 2-1 ]			
* Lung	Alveolar Epith	Hyperplasia	Focal, Mild
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Minimal
[ Inflammation TGLS = 1-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Glandular, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			
* Spleen		Hyperplasia	Lymphoid, Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 426

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G426

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 3-3,10 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 6-4 ]			
Lymph Node	Axillary	Hemangiosarcoma	
[ Hemangiosarcoma TGLS = 4-12 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 7-4 ]			
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
[ Angiectasis TGLS = 8-8 ]			
* Spleen		Hemangiosarcoma	
		Hematopoietic Cell Proliferation	Mild
[ Hemangiosarcoma TGLS = 1-9 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 426

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-G426

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hyperplasia TGLS = 2-11 ]

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 427

TRT#: 10

SEX: Female

DAY ON TEST: 670

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G427

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	* Islets, Pancreatic	* Larynx
* Lymph Node, Mediastinal	* Mammary Gland	* Nose	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Ovary

OBSERVATIONS

* Clitoral Gland		Pigmentation	Minimal
* Kidney		Lymphoma Malignant	
* Liver		Lymphoma Malignant	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
		Lymphoma Malignant	
	Alveolus	Pigmentation	Mild
Lymph Node	Iliac	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 5-4,6-11 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Mild
[ Lymphoma Malignant TGLS = 5-4,6-11 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
* Lymph Node, Mesenteric		Inflammation	Chronic Active, Moderate
[ Inflammation TGLS = 4-5 ]			
* Pancreas		Lymphoma Malignant	
Skin	Sebaceous GI	Adenoma	
[ Adenoma TGLS = 3-9 ]			
* Spleen		Lymphoma Malignant	
* Thymus		Lymphoma Malignant	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 427

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 670

**DOSE:** 2.5MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/G427

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**ORGAN AND ACCOUNTABLE SITE STATUS**

\* Uterus

Endometrium

Hyperplasia

Cystic, Moderate

[ Hyperplasia TGLS = 1-6,10 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 428

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G428

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mediastinal	* Ovary	* Pancreas	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Intestine Large, Rectum	* Lymph Node, Mesenteric	* Parathyroid Gland
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INSUFFICIENT TISSUE

\* Clitoral Gland

OBSERVATIONS

* Bone		Hyperostosis	
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Moderate
	[ Alveolar/Bronchiolar Carcinoma TGLS = 3-9 ]	Pigmentation	Mild
	[ Inflammation TGLS = 6-4,4-4 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Mild
	[ Lymphoma Malignant TGLS = 5-4 ]		
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Hyperplasia	Glandular, Mild
* Nose	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Mild
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
	Pars Distalis	Hyperplasia	Marked
	[ Hyperplasia TGLS = 7-8 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 428

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-G428

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Spleen [ Hyperplasia TGLS = 1-3 ]		Hyperplasia	Lymphoid, Moderate
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus [ Hyperplasia TGLS = 2-10 ]	Endometrium	Hyperplasia	Cystic, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 429

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G429

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Clitoral Gland

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
	[ Inflammation TGLS = 7-4,8-4 ]	Pigmentation	Mild
Lymph Node	Iliac	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 6-4,2-5,4-11 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 6-4,2-5,4-11 ]	Pigmentation	Mild
* Lymph Node, Mandibular		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 6-4,2-5,4-11 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 6-4,2-5,4-11 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 6-4,2-5,4-11 ]		
* Spleen		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 1-2,9 ]		
* Thymus		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 5-2 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 429

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-G429

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Uterus

Endometrium

Hyperplasia

Cystic, Mild

[ Hyperplasia TGLS = 3-6,10 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 430

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G430

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* 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	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
Harderian Gland		Adenoma	
	[ Adenoma TGLS = 4-11 ]		
* Liver		Hepatocellular Carcinoma	
	Note: DX BASED ON MOST ANAPLASTIC AREA, SLIDE 9		
	[ Hepatocellular Carcinoma TGLS = 1-9,3 ]		
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
		Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mandibular			
	[ Hyperplasia TGLS = 2-4 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Mild
* Ovary		Granulosa-Theca Tumor Benign	
* Spleen		Hematopoietic Cell Proliferation	Marked
* Stomach, Forestomach		Hyperkeratosis	Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 431

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G431

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Clitoral Gland
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Bone		Hyperostosis	
* Brain	Hypothalamus	Compression	
[ Compression TGLS = 8-1 ]			
* Kidney		Nephropathy	Minimal
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Moderate
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 5-4,6-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
[ Hyperplasia TGLS = 4-4 ]			
[ Pigmentation TGLS = 4-4 ]			
* Nose	Respirat Epith	Degeneration	Mild
	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Ovary		Cyst	
[ Cyst TGLS = 1-6 ]			
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 431

**TRT#:** 10  
**DOSE:** 2.5MG/M3

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 733  
**HISTO:** MZ031-G431

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 7-8 ]

\* Spleen  
\* Thyroid Gland

Hyperplasia  
Hyperplasia

Lymphoid, Mild  
Cystic, Mild

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 432

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G432

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Bone		Hyperostosis	
* Liver		Hepatocellular Carcinoma	
Note: TGL PANCREAS IS ACTUALLY LIVER CA [ Hepatocellular Carcinoma TGLS = 2-9 ]			
* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation	Minimal Minimal
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Mild
[ Hyperplasia TGLS = 1-5 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 1-5 ]			
* Pancreas			
Note: TGL PANCREAS IS LIVER N.B.			
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
[ Angiectasis TGLS = 3-8 ]			
* Spleen		Hyperplasia	Lymphoid, Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 433

TRT#: 12

SEX: Female

DAY ON TEST: 670

DOSE: 2.5MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/G433

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mediastinal	* Ovary	* Thymus
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OBSERVATIONS

* Bone		Hyperostosis	Mild
* Kidney		Inflammation	Chronic, Moderate
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 3-3,9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
Lymph Node	Pancreatic	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-10 ]			
* Lymph Node, Bronchial		Pigmentation	Minimal
[ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Mesenteric		Congestion	Moderate
[ Congestion TGLS = 1-5 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 434

TRT#: 10

SEX: Female

DAY ON TEST: 681

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G434

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Colon
* Intestine Large, Rectum	* Islets, Pancreatic	* Larynx	* Mammary Gland
* Nose	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Thyroid Gland	* Trachea	* Urinary Bladder

AUTO PRECLUDES DIAG.

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

* Adrenal Cortex		Lymphoma Malignant	
* Clitoral Gland		Pigmentation	Mild
[ Pigmentation TGLS = 2-6 ]			
* Kidney		Lymphoma Malignant	
* Liver		Lymphoma Malignant	
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Lymphoma Malignant	
	Alveolus	Pigmentation	Minimal
[ Alveolar/Bronchiolar Adenoma TGLS = 13-10 ]		Proteinosis	Minimal
Lymph Node	Iliac	Lymphoma Malignant	
	Pancreatic	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-5,11,12-4,6-22,23,10-12,13,11-17,18 ]			
[ Lymphoma Malignant TGLS = 9-5,11,12-4,6-22,23,10-12,13,11-17,18 ]			
[ Lymphoma Malignant TGLS = 9-5,11,12-4,6-22,23,10-12,13,11-17,18 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Minimal
[ Lymphoma Malignant TGLS = 9-5,11,12-4,6-22,23,10-12,13,11-17,18 ]			
* Lymph Node, Mandibular		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-5,11,12-4,6-22,23,10-12,13,11-17,18 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 434

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 681

**DOSE:** 2.5MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/G434

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Lymphoma Malignant TGLS = 9-5,11,12-4,6-22,23,10-12,13,11-17,18 ]	
* Lymph Node, Mesenteric	Lymphoma Malignant
[ Lymphoma Malignant TGLS = 9-5,11,12-4,6-22,23,10-12,13,11-17,18 ]	
Mesentery	Lymphoma Malignant
[ Lymphoma Malignant TGLS = 8-20,21 ]	
* Ovary	Lymphoma Malignant
* Pancreas	Lymphoma Malignant
Skin	Alopecia
[ Alopecia TGLS = 1-19 ]	
* Spleen	Lymphoma Malignant
[ Lymphoma Malignant TGLS = 5-3,9 ]	
* Stomach, Glandular	Lymphoma Malignant
* Thymus	Lymphoma Malignant
* Uterus	Hemangiosarcoma
	Lymphoma Malignant
[ Hemangiosarcoma TGLS = 4-14 ]	
[ Lymphoma Malignant TGLS = 3,4-6,14,15,16 ]	

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 435

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G435

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Brain	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Lymph Node, Mediastinal
* Mammary Gland	* Ovary	* Pancreas	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Bone		Hyperostosis	
* Bone Marrow	Myeloid Cell	Hyperplasia	Marked
* Clitoral Gland		Pigmentation	Minimal
* Liver		Hepatocellular Adenoma	Multiple
	[ Hepatocellular Adenoma TGLS = 3-10,4-3,9 ]		
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	[ Inflammation TGLS = 7-4 ]		
	[ Pigmentation TGLS = 7-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Hyperplasia TGLS = 1-5 ]		
	[ Pigmentation TGLS = 6-4 ]		
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
	[ Hyperplasia TGLS = 1-5 ]		
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
	[ Hyperplasia TGLS = 1-5 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Moderate
	Respirat Epith	Metaplasia	Squamous, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 435	<b>TRT#:</b> 10 <b>DOSE:</b> 2.5MG/M3	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b> MZ031-G435
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Pituitary Gland [ Adenoma TGLS = 8-8 ]	Pars Distalis	Adenoma	
* Spleen [ Hematopoietic Cell Proliferation TGLS = 2-3 ]		Hematopoietic Cell Proliferation	Moderate
* Thyroid Gland Tissue NOS Note: FAT LOOKS TO BE ABDOMINAL [ Hemangiosarcoma TGLS = 5-11 ]	Bilateral, Follicular Cel Fat	Adenoma Hemangiosarcoma	

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 437

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 16

**DOSE:** 2.5MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/G437

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex  
\* Brain  
\* Islets, Pancreatic  
\* Lung  
\* Ovary  
\* Salivary Glands  
\* Thymus

\* Adrenal Medulla  
\* Clitoral Gland  
\* Kidney  
\* Lymph Node, Mandibular  
\* Pancreas  
\* Spleen  
\* Thyroid Gland

\* Bone  
\* Esophagus  
\* Larynx  
\* Mammary Gland  
\* Parathyroid Gland  
\* Stomach, Forestomach  
\* Trachea

\* Bone Marrow  
\* Heart  
\* Liver  
\* Nose  
\* Pituitary Gland  
\* Stomach, Glandular  
\* Uterus

**MISSING**

\* Gallbladder  
\* Urinary Bladder

\* Lymph Node, Bronchial

\* Lymph Node, Mediastinal

\* Lymph Node, Mesenteric

**AUTO PRECLUDES DIAG.**

\* Intestine Large, Cecum  
\* Intestine Small, Ileum

\* Intestine Large, Colon  
\* Intestine Small, Jejunum

\* Intestine Large, Rectum

\* Intestine Small, Duodenum

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 438

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G438

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Minimal
		Pigmentation	Minimal
	[ Inflammation TGLS = 4-4 ]		
	[ Pigmentation TGLS = 4-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Hyperplasia TGLS = 5-4,1-6 ]		
	[ Pigmentation TGLS = 5-4 ]		
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
	[ Hyperplasia TGLS = 5-4,1-6 ]		
* Ovary		Cystadenoma	
	[ Cystadenoma TGLS = 2-6 ]		
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 440

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G440

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Lung		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Minimal
[ Inflammation TGLS = 2-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Nose	Respirat Epith	Degeneration	Minimal
* Spleen		Hyperplasia	Lymphoid, Minimal
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 441

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G441

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
	[ Inflammation TGLS = 4-4,9,3-9 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
	[ Pigmentation TGLS = 2-4 ]		
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Hyperplasia	Glandular, Minimal
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Ovary		Cystadenoma	
	[ Cystadenoma TGLS = 1-6 ]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
	[ Hyperplasia TGLS = 5-8 ]		
* Spleen		Hyperplasia	Lymphoid, Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 442

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G442

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* 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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Bone		Hyperostosis	
* Brain	Hypothalamus	Compression	
[ Compression TGLS = 5-1 ]			
* Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma	
	Alveolus	Hyperplasia	Mild
	Alveolus	Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
		Proteinosis	Mild
[ Alveolar/Bronchiolar Adenoma TGLS = 7-10 ]			
[ Inflammation TGLS = 4-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 3-4 ]			
[ Pigmentation TGLS = 3-4 ]			
* Mammary Gland		Hyperplasia	Glandular, Minimal
* Pancreas		Atrophy	Moderate
		Cyst	
[ Cyst TGLS = 1-9 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 6-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 443

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G443

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Liver		Inflammation	Chronic, Focal, Mild
* Lung		Alveolar/Bronchiolar Adenoma	
		Alveolar/Bronchiolar Carcinoma	
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
Note: CA DX BASED ON ANAPLASIA & LOCAL INVASION [ Alveolar/Bronchiolar Carcinoma TGLS = 3-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
		[ Hyperplasia TGLS = 2-4 ]	
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
		[ Hyperplasia TGLS = 2-4 ]	
* Pituitary Gland	Pars Distalis	Angiectasis	Minimal
* Spleen		Hyperplasia	Lymphoid, Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
		[ Hyperplasia TGLS = 1-9 ]	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 443

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-G443

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 444

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G444

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mediastinal	* Pituitary Gland
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OBSERVATIONS

* Lung	Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia
		Inflammation
	Alveolus	Pigmentation
	Alveolus	Proteinosis
	[ Alveolar/Bronchiolar Adenoma TGLS = 3-4 ]	
	[ Inflammation TGLS = 4-4 ]	
* Lymph Node, Bronchial		Hyperplasia
		Pigmentation
	[ Hyperplasia TGLS = 2-4 ]	
* Mammary Gland		Hyperplasia
	[ Hyperplasia TGLS = 1-6 ]	
* Pituitary Gland		
	Note: NOT ABLE TO FIND, SECTION IS PIECE OF SPLEEN	
* Thyroid Gland		Hyperplasia

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 446

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G446

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
[ Inflammation TGLS = 3-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Pigmentation TGLS = 2-4 ]			
* Spleen		Hyperplasia	Lymphoid, Moderate
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 1-6 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 447

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G477

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-9,3 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
* Ovary		Cyst	
Note: CUT ON OVARY NOT GOOD, CYST PROB. PARAOVARIAN			
[ Cyst TGLS = 1-6 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 448

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G448

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Intestine Large, Rectum

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Bone		Hyperostosis	
* Kidney		Nephropathy	Minimal
* Liver		Eosinophilic Focus	
	Hepatocyte	Necrosis	Minimal
[ Eosinophilic Focus TGLS = 1-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 3-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Pigmentation TGLS = 2-4 ]			
* Pituitary Gland	Pars Intermed	Adenoma	
	Pars Distalis	Angiectasis	Mild
* Spleen		Hyperplasia	Lymphoid, Minimal
* Thyroid Gland		Hyperplasia	Cystic, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 448

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-G448

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 449

TRT#: 12

SEX: Female

DAY ON TEST: 676

DOSE: 2.5MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/G449

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* 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

OBSERVATIONS

* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 3-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
[ Pigmentation TGLS = 5-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 1-6 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Minimal
Skin		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 6-11 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 2-10 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 450

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G450

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Bone		Hyperostosis	
* Clitoral Gland		Pigmentation	Mild
[ Pigmentation TGLS = 1-6 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 3-4 ]			
* Nose	Respirat Epith	Degeneration	Mild
	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Ovary		Cystadenoma	
* Spleen		Hyperplasia	Lymphoid, Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 2-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 452

TRT#: 10

SEX: Female

DAY ON TEST: 58

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G452

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex  
\* Brain  
\* Islets, Pancreatic  
\* Mammary Gland  
\* Pituitary Gland  
\* Stomach, Glandular  
\* Urinary Bladder

\* Adrenal Medulla  
\* Clitoral Gland  
\* Kidney  
\* Nose  
\* Salivary Glands  
\* Thymus  
\* Uterus

\* Bone  
\* Esophagus  
\* Liver  
\* Ovary  
\* Spleen  
\* Thyroid Gland

\* Bone Marrow  
\* Heart  
\* Lymph Node, Mandibular  
\* Pancreas  
\* Stomach, Forestomach  
\* Trachea

**MISSING**

\* Lymph Node, Bronchial

\* Lymph Node, Mediastinal

\* Lymph Node, Mesenteric

\* Parathyroid Gland

**AUTO PRECLUDES DIAG.**

\* Gallbladder  
\* Intestine Small, Duodenum

\* Intestine Large, Cecum  
\* Intestine Small, Ileum

\* Intestine Large, Colon  
\* Intestine Small, Jejunum

\* Intestine Large, Rectum

**OBSERVATIONS**

\* Larynx  
\* Lung

Alveolus

Inflammation  
Pigmentation

Suppurative, Mild  
Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 453

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G453

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Brain  
\* Heart  
\* Intestine Small, Ileum  
\* Larynx  
\* Ovary  
\* Salivary Glands  
\* Urinary Bladder

\* Adrenal Medulla  
\* Clitoral Gland  
\* Intestine Large, Cecum  
\* Intestine Small, Jejunum  
\* Lymph Node, Mesenteric  
\* Pancreas  
\* Stomach, Forestomach

\* Bone  
\* Esophagus  
\* Intestine Large, Colon  
\* Islets, Pancreatic  
\* Mammary Gland  
\* Parathyroid Gland  
\* Stomach, Glandular

\* Bone Marrow  
\* Gallbladder  
\* Intestine Small, Duodenum  
\* Kidney  
\* Nose  
\* Pituitary Gland  
\* Trachea

MISSING

\* Intestine Large, Rectum

INSUFFICIENT TISSUE

\* Thymus

OBSERVATIONS

* Liver		Eosinophilic Focus	
[ Eosinophilic Focus TGLS = 7-10 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
Lymph Node	Iliac	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 4-11,5-9,6-4 ]			
[ Lymphoma Malignant TGLS = 4-11,5-9,6-4 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Mild
[ Lymphoma Malignant TGLS = 4-11,5-9,6-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 1-6 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 4-11,5-9,6-4 ]			
* Spleen		Hemangiosarcoma	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 453

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-G453

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hemangiosarcoma TGLS = 3-3 ]

[ Hyperplasia TGLS = 2-3 ]

\* Thyroid Gland

\* Uterus

Endometrium

Hyperplasia

Hyperplasia

Hyperplasia

Lymphoid, Moderate

Cystic, Moderate

Cystic, Mild

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 455

TRT#: 10

SEX: Female

DAY ON TEST: 630

DOSE: 2.5MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/G455

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Lung		Alveolar/Bronchiolar Adenoma Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia Inflammation	Minimal Chronic, Mild
	Alveolus	Pigmentation	Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 3-9 ]		
	[ Alveolar/Bronchiolar Carcinoma TGLS = 4-4,10 ]		
	[ Inflammation TGLS = 2-4 ]		
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Mild
	[ Hyperplasia TGLS = 5-4 ]		
	[ Pigmentation TGLS = 5-4 ]		
* Nose	Respirat Epith	Degeneration	Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
	[ Hyperplasia TGLS = 1-11 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 456

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G456

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Clitoral Gland	* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Brain [ Compression TGLS = 6-1 ]	Hypothalamus	Compression	
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Mild
* Lung	Alveolus	Inflammation	Chronic, Minimal
Lymph Node [ Hyperplasia TGLS = 2-9,4-4 ]	Renal	Pigmentation	Mild
* Lymph Node, Bronchial [ Hyperplasia TGLS = 2-9,4-4 ]		Hyperplasia	Lymphoid, Marked
* Lymph Node, Mesenteric [ Inflammation TGLS = 1-5 ]		Pigmentation	Lymphoid, Minimal
* Nose	Respirat Epith	Inflammation	Mild
* Pituitary Gland [ Adenoma TGLS = 5-8 ]	Respirat Epith	Degeneration	Minimal
	Pars Distalis	Metaplasia	Squamous, Minimal
		Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 457

TRT#: 10

SEX: Female

DAY ON TEST: 731

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G457

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Clitoral Gland	* Lymph Node, Mediastinal
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OBSERVATIONS

* Intestine Large, Cecum		Hyperplasia	Lymphoid, Mild
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-10 ]		
	[ Inflammation TGLS = 1-9 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Hyperplasia TGLS = 3-4 ]		
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
	[ Hyperplasia TGLS = 3-4 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 458

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G458

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Bone Marrow             | * Brain                     |
| * Clitoral Gland         | * 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                 | * Liver                    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   |
| * Lymph Node, Mesenteric | * Mammary Gland            | * Nose                    | * Ovary                     |
| * Pancreas               | * Pituitary Gland          | * Salivary Glands         | * Spleen                    |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          | * Uterus                  |                             |

MISSING

- \* Parathyroid Gland

OBSERVATIONS

- |                             |                |              |                |
|-----------------------------|----------------|--------------|----------------|
| * Bone                      |                | Hyperostosis |                |
| * Lung                      | Alveolar Epith | Hyperplasia  | Minimal        |
|                             |                | Inflammation | Chronic, Mild  |
|                             | Alveolus       | Pigmentation | Mild           |
| [ Inflammation TGLS = 3-4 ] |                |              |                |
| * Lymph Node, Bronchial     |                | Hyperplasia  | Lymphoid, Mild |
|                             |                | Pigmentation | Mild           |
| [ Hyperplasia TGLS = 2-4 ]  |                |              |                |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 459

TRT#: 10

SEX: Female

DAY ON TEST: 730

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G459

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

**MISSING**

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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**OBSERVATIONS**

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 3-4 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 2-3 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 1-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 460

TRT#: 10

SEX: Female

DAY ON TEST: 736

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G460

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 2-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
* Mammary Gland		Hyperplasia	Glandular, Minimal
* Nose	Respirat Epith	Degeneration	Minimal
* Ovary		Cyst	
[ Cyst TGLS = 1-6 ]			
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 461

TRT#: 10

SEX: Female

DAY ON TEST: 729

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G461

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* 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

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Bone		Hyperostosis	
* Lung		Fibrosis	Mild
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
Note: FIBROSIS WITH OSSEOUS METAPLASIA			
[ Fibrosis TGLS = 6-9 ]			
[ Inflammation TGLS = 5-4 ]			
[ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
			[ Hyperplasia TGLS = 7-4 ]
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Spleen		Hyperplasia	Lymphoid, Minimal
			[ Hyperplasia TGLS = 1-3 ]
Tooth		Inflammation	Moderate
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
			[ Hyperplasia TGLS = 2-6,10 ]

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 461

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-G461

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 462

TRT#: 12

SEX: Female

DAY ON TEST: 459

DOSE: 2.5MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/G462

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Hyperplasia TGLS = 3-4 ]			
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
[ Angiectasis TGLS = 4-8 ]			
* Uterus	Endometrium	Hyperplasia	Mild
[ Hyperplasia TGLS = 1-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 463

TRT#: 10

SEX: Female

DAY ON TEST: 736

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G463

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Brain	* Clitoral Gland
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Pancreas	* Parathyroid Gland	* Salivary Glands
Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Bone		Hyperostosis	
* Bone Marrow	Myeloid Cell	Hyperplasia	Mild
* Intestine Small, Duodenum		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 6-9 ]			
* Kidney		Nephropathy	Moderate
[ Nephropathy TGLS = 7-3 ]			
* Lung	Alveolus	Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
		Proteinosis	Moderate
[ Inflammation TGLS = 10-4 ]			
[ Proteinosis TGLS = 11-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 2-5 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
[ Hyperplasia TGLS = 2-5 ]			
* Mammary Gland		Hyperplasia	Glandular, Mild
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Mild
* Ovary		Cyst	
[ Cyst TGLS = 5-6 ]			
* Pituitary Gland	Pars Distalis	Angiectasis	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 463

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-G463

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Angiectasis TGLS = 12-8 ]

\* Spleen

Hyperplasia

Lymphoid, Mild

\* Thymus

Atrophy

Mild

[ Atrophy TGLS = 9-2 ]

\* Thyroid Gland

Hyperplasia

Cystic, Minimal

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PRIMARY CAUSE OF DEATH

-

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Animal Note: ASCITES & SUBQ EDEMA

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 466

TRT#: 10

SEX: Female

DAY ON TEST: 659

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G466

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- \* Adrenal Cortex
- \* Clitoral Gland
- \* Larynx
- \* Mammary Gland
- \* Salivary Glands

- \* Adrenal Medulla
- \* Esophagus
- \* Liver
- \* Nose
- \* Thymus

- \* Bone
- \* Heart
- \* Lymph Node, Bronchial
- \* Parathyroid Gland
- \* Thyroid Gland

- \* Brain
- \* Kidney
- \* Lymph Node, Mediastinal
- \* Pituitary Gland
- \* Trachea

MISSING

- \* Ovary

AUTO PRECLUDES DIAG.

- \* Gallbladder
- \* Intestine Small, Duodenum
- \* Lymph Node, Mandibular
- \* Stomach, Glandular

- \* Intestine Large, Cecum
- \* Intestine Small, Ileum
- \* Lymph Node, Mesenteric
- \* Urinary Bladder

- \* Intestine Large, Colon
- \* Intestine Small, Jejunum
- \* Pancreas
- \* Uterus

- \* Intestine Large, Rectum
- \* Islets, Pancreatic
- \* Stomach, Forestomach

OBSERVATIONS

- \* Bone Marrow
- \* Lung

Hemangiosarcoma  
 Alveolar/Bronchiolar Adenoma  
 Inflammation  
 Pigmentation

Chronic, Minimal  
 Mild

Alveolus

Note: ADENOMA DIAGNOSIS WAS DIFFICULT DUE TO AUTOLYSIS

- \* Spleen

Hemangiosarcoma

[ Hemangiosarcoma TGLS = 1,2-3,9 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 468

TRT#: 10

SEX: Female

DAY ON TEST: 732

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G468

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Bone Marrow             | * Brain                     |
| * Clitoral Gland         | * 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                 | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             |
| * Nose                   | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Pituitary Gland        | * Salivary Glands          | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

INSUFFICIENT TISSUE

- \* Lymph Node, Mediastinal

OBSERVATIONS

- |                             |          |                  |                  |
|-----------------------------|----------|------------------|------------------|
| * Bone                      |          | Hyperostosis     |                  |
| * Liver                     |          | Mixed Cell Focus |                  |
| * Lung                      |          | Inflammation     | Chronic, Minimal |
|                             | Alveolus | Pigmentation     | Mild             |
| [ Pigmentation TGLS = 1-4 ] |          |                  |                  |
| * Lymph Node, Bronchial     |          | Hyperplasia      | Lymphoid, Mild   |
|                             |          | Pigmentation     | Moderate         |
| [ Pigmentation TGLS = 2-4 ] |          |                  |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 469

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G469

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Bone		Hyperostosis	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 4-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Pigmentation TGLS = 3-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
* Nose	Respirat Epith	Degeneration	Mild
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Minimal
* Spleen		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-3 ]			
* Thyroid Gland		Hyperplasia	Cystic, Moderate
* Uterus		Cyst	
[ Cyst TGLS = 1-9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 470

TRT#: 10

SEX: Female

DAY ON TEST: 669

DOSE: 2.5MG/M3

DISP: Natural Death

HISTO: MZ031/G470

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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OBSERVATIONS

* Heart		Inflammation	Suppurative, Mild
* Liver		Basophilic Focus	Minimal
		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 1-3 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Hemorrhage	Mild
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Alveolar/Bronchiolar Adenoma TGLS = 4-4 ]			
[ Hemorrhage TGLS = 3-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
[ Hyperplasia TGLS = 2-4 ]			
[ Pigmentation TGLS = 2-4 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Spleen		Hyperplasia	Lymphoid, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 470

**TRT#:** 10

**DOSE:** 2.5MG/M3

**SEX:** Female

**DISP:** Natural Death

**DAY ON TEST:** 669

**HISTO:** MZ031/G470

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 471

TRT#: 12

SEX: Female

DAY ON TEST: 459

DOSE: 2.5MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/G471

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* 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

* Liver		Infiltration Cellular	Lymphocyte, Minimal
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
[ Hyperplasia TGLS = 4-4 ]			
* Spleen		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 1-3 ]			
* Uterus	Endometrium	Hyperplasia	Mild
[ Hyperplasia TGLS = 2-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 472

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 2.5MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-G472

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

**MISSING**

\* Intestine Large, Rectum

**OBSERVATIONS**

* Lung	Alveolar Epith	Hyperplasia Inflammation	Minimal Chronic, Mild
	Alveolus	Pigmentation	Moderate
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Moderate Mild
[ Hyperplasia TGLS = 2-4 ]			
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
* Spleen		Hyperplasia	Lymphoid, Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 473

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-G473

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Intestine Large, Rectum	* Thymus
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OBSERVATIONS

* Bone		Hyperostosis	
* Intestine Small, Duodenum		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 3-5 ]			
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-9 ]			
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
[ Alveolar/Bronchiolar Adenoma TGLS = 4-4,11 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Pigmentation TGLS = 5-4 ]			
* Spleen		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 1-3 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 474

TRT#: 12

SEX: Female

DAY ON TEST: 459

DOSE: 2.5MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/G474

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Hyperplasia TGLS = 2-4 ]			
* Nose	Respirat Epith	Degeneration	Minimal
* Uterus	Endometrium	Hyperplasia	Mild
[ Hyperplasia TGLS = 1-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 476

TRT#: 12

SEX: Female

DAY ON TEST: 459

DOSE: 2.5MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/G476

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 4-4 ]		
* Lymph Node, Bronchial		Pigmentation	Mild
	[ Pigmentation TGLS = 5-4 ]		
* Uterus	Endometrium	Hyperplasia	Mild
	[ Hyperplasia TGLS = 1-6,9 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 477

TRT#: 12

SEX: Female

DAY ON TEST: 459

DOSE: 2.5MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/G477

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
* Nose	Respirat Epith	Degeneration	Mild
* Uterus	Endometrium	Hyperplasia	Mild

[ Hyperplasia TGLS = 1-6,9 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 478

TRT#: 10

SEX: Female

DAY ON TEST: 733

DOSE: 2.5MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031/G478

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Clitoral Gland
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Bone		Hyperostosis	
* Brain	Hypothalamus	Compression	
[ Compression TGLS = 5-1 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 4-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Hyperplasia TGLS = 3-4 ]			
* Mammary Gland		Hyperplasia	Glandular, Mild
[ Hyperplasia TGLS = 1-6 ]			
* Nose	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 6-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 479	<b>TRT#:</b> 12	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 200
	<b>DOSE:</b> 2.5MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZO31-G479

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Nose

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**MISSING**

\* Lymph Node, Mandibular

\* Lymph Node, Mediastinal

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**OBSERVATIONS**

* Kidney		Infiltration Cellular	Lymphocyte, Minimal
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

<b>ANIMAL ID:</b> 480	<b>TRT#:</b> 10 <b>DOSE:</b> 2.5MG/M3	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 729 <b>HISTO:</b> MZ031-G480
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Pigmentation TGLS = 3-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Minimal
[ Pigmentation TGLS = 2-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 561

TRT#: 14

SEX: Female

DAY ON TEST: 733

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H561

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mediastinal	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Bone		Hyperostosis	
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
[ Inflammation TGLS = 5-4 ]		Pigmentation	Moderate
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 2-5,4-4 ]		Pigmentation	Mild
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Minimal
[ Hyperplasia TGLS = 2-5,4-4 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-5,4-4 ]			
* Nose	Respirat Epith	Degeneration	Minimal
* Spleen		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 1-3 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 562

TRT#: 14

SEX: Female

DAY ON TEST: 730

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H562

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Intestine Large, Rectum

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Brain	Hypothalamus	Compression	
[ Compression TGLS = 4-1 ]			
* Kidney		Nephropathy	Minimal
* Lung	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 2-4 ]		Proteinosis	Minimal
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Pigmentation TGLS = 3-4 ]			
* Mammary Gland		Hyperplasia	Glandular, Mild
* Nose	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 5-8 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus		Polyp Stromal	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 562

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H562

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 563

TRT#: 14

SEX: Female

DAY ON TEST: 602

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H563

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia Inflammation	Minimal Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
Lymph Node	Iliac	Hyperplasia	Macrophage, Mild
	Renal	Inflammation	Chronic Active, Moderate
	[ Hyperplasia TGLS = 6-4,5-9 ]		
	[ Inflammation TGLS = 2-10 ]		
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Mild
	[ Hyperplasia TGLS = 6-4,5-9 ]		
	[ Pigmentation TGLS = 6-4 ]		
* Nose	Respirat Epith Respirat Epith	Degeneration Metaplasia	Minimal Squamous, Minimal
* Ovary		Cyst	
	[ Cyst TGLS = 3-6,11 ]		
* Spleen		Hyperplasia	Lymphoid, Mild
	[ Hyperplasia TGLS = 1-3 ]		
* Thyroid Gland		Hyperplasia	Cystic, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 563

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 602

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H563

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**ORGAN AND ACCOUNTABLE SITE STATUS**

\* Uterus

Endometrium

Hyperplasia

Cystic, Marked

[ Hyperplasia TGLS = 4-6,12 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 564

TRT#: 14

SEX: Female

DAY ON TEST: 729

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H564

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Bone Marrow             | * Brain                     |
| * Clitoral Gland         | * 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                 | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    |
| * Mammary Gland          | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Pituitary Gland        | * Salivary Glands          | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

OBSERVATIONS

- |                                       |                |                        |                 |
|---------------------------------------|----------------|------------------------|-----------------|
| * Bone                                |                | Hyperostosis           |                 |
| * Liver                               |                | Hepatocellular Adenoma |                 |
| [ Hepatocellular Adenoma TGLS = 1-9 ] |                |                        |                 |
| * Lung                                | Alveolus       | Inflammation           | Chronic, Mild   |
|                                       |                | Pigmentation           | Moderate        |
| * Lymph Node, Bronchial               |                | Hyperplasia            | Lymphoid, Mild  |
|                                       |                | Pigmentation           | Mild            |
| [ Hyperplasia TGLS = 2-4 ]            |                |                        |                 |
| * Nose                                | Respirat Epith | Degeneration           | Minimal         |
| * Thyroid Gland                       |                | Hyperplasia            | Cystic, Minimal |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 565

TRT#: 14

SEX: Female

DAY ON TEST: 732

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H565

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* 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	* Islets, Pancreatic	* Kidney
* Larynx	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal
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OBSERVATIONS

* Brain	Hypothalamus	Compression	
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 2-10 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Mild
[ Inflammation TGLS = 5-4,6-4 ]			
[ Pigmentation TGLS = 5-4 ]			
[ Proteinosis TGLS = 6-4 ]			
Lymph Node	Renal	Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 3-11 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 3-11 ]			
* Mammary Gland		Hyperplasia	Glandular, Moderate
* Nose	Olfactory Epi	Degeneration	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 565

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H565

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 7-8 ]

\* Spleen

Hyperplasia

Lymphoid, Moderate

[ Hyperplasia TGLS = 1-3,1-9 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 566

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H566

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Uterus		

**MISSING**

\* Urinary Bladder

**OBSERVATIONS**

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Moderate
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
	[ Inflammation TGLS = 5-4,6-4,7-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Hyperplasia TGLS = 2-5 ]		
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
	[ Hyperplasia TGLS = 2-5 ]		
* Mammary Gland		Hyperplasia	Glandular, Minimal
* Ovary		Cyst	
	[ Cyst TGLS = 3-6 ]		
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	[ Angiectasis TGLS = 8-8 ]		
* Spleen		Hyperplasia	Lymphoid, Moderate
	[ Hyperplasia TGLS = 1-3 ]		
* Thyroid Gland		Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 566

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H566

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 567

TRT#: 14

SEX: Female

DAY ON TEST: 731

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H567

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Clitoral Gland		Pigmentation	Mild
[ Pigmentation TGLS = 1-6 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Moderate
[ Inflammation TGLS = 7-4 ]			
Lymph Node	Iliac	Hyperplasia	Lymphoid, Moderate
	Renal	Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 4-12,5-11 ]			
[ Hyperplasia TGLS = 4-12,5-11 ]			
* Lymph Node, Bronchial		Pigmentation	Minimal
[ Pigmentation TGLS = 6-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 4-12,5-11 ]			
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal
		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 2-3,9 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 567

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H567

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hyperplasia TGLS = 3-10 ]

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 568

TRT#: 14

SEX: Female

DAY ON TEST: 595

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H568

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Parathyroid Gland
* Pituitary Gland	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea			

OBSERVATIONS

* Adrenal Cortex		Lymphoma Malignant	
* Heart		Lymphoma Malignant	
* Kidney		Lymphoma Malignant	
* Liver		Lymphoma Malignant	
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Lymphoma Malignant	Mild
	Alveolus	Pigmentation	Mild
	Iliac	Proteinosis	
Lymph Node	Renal	Lymphoma Malignant	
		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 5-9,3-4,2-10 ]		
	[ Lymphoma Malignant TGLS = 5-9,3-4,2-10 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Minimal
	[ Lymphoma Malignant TGLS = 5-9,3-4,2-10 ]		
* Lymph Node, Mandibular		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 5-9,3-4,2-10 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 5-9,3-4,2-10 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 5-9,3-4,2-10 ]		
* Mammary Gland		Lymphoma Malignant	
* Nose	Olfactory Epi	Degeneration	Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 568	<b>TRT#:</b> 14 <b>DOSE:</b> 5.0MG/M3	<b>SEX:</b> Female <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 595 <b>HISTO:</b> MZ031/H568
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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	Respirat Epith	Degeneration	Minimal
* Ovary		Lymphoma Malignant	
* Pancreas		Lymphoma Malignant	
* Salivary Glands		Lymphoma Malignant	
* Spleen		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 1-3 ]			
* Thymus		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 6-2 ]			
* Urinary Bladder		Lymphoma Malignant	
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 569

TRT#: 14

SEX: Female

DAY ON TEST: 699

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H569

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Brain	Hypothalamus	Compression	Moderate
* Intestine Large, Cecum		Leiomyosarcoma	
[ Leiomyosarcoma TGLS = 8-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
		Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
[ Hyperplasia TGLS = 5-4 ]			
[ Pigmentation TGLS = 5-4 ]			
* Lymph Node, Mesenteric		Congestion	Mild
		Hematopoietic Cell Proliferation	Mild
[ Congestion TGLS = 3-5 ]			
* Mammary Gland		Carcinoma	
[ Carcinoma TGLS = 1-10 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Mild
* Ovary		Angiectasis	Moderate
[ Angiectasis TGLS = 4-6 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 6-8 ]			
* Spleen		Hyperplasia	Lymphoid, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 569

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 699

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H569

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hyperplasia TGLS = 2-3 ]

\* Thyroid Gland

Hyperplasia

Cystic, Minimal

\* Uterus

Endometrium

Hyperplasia

Cystic, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 570

TRT#: 14

SEX: Female

DAY ON TEST: 731

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H570

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

Harderian Gland [ Adenoma TGLS = 1-10 ]		Adenoma	
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Moderate
		Proteinosis	Minimal
[ Inflammation TGLS = 4-4 ]			
[ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
* Nose	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Moderate
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 2-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:47  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 571	<b>TRT#:</b> 16	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 200
	<b>DOSE:</b> 5.0MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZO31-H571

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Lymph Node, Mediastinal	* Nose
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**OBSERVATIONS**

* Kidney		Infiltration Cellular	Lymphocyte, Mild
* Lung	Alveolus	Pigmentation	Minimal
* Lymph Node, Bronchial		Pigmentation	Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 572

TRT#: 14

SEX: Female

DAY ON TEST: 713

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H572

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Intestine Large, Colon	* Intestine Large, Rectum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mediastinal	* Thymus
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AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Lung	Alveolus	Inflammation	Chronic, Marked
	Alveolus	Pigmentation	Minimal
		Proteinosis	Mild
	[ Inflammation TGLS = 5-4 ]		
	[ Proteinosis TGLS = 5-4 ]		
* Lymph Node, Bronchial		Congestion	Moderate
		Pigmentation	Minimal
	[ Congestion TGLS = 4-4 ]		
* Nose	Olfactory Epi	Degeneration	Mild
	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Mild
Skin		Hemorrhage	Mild
	[ Hemorrhage TGLS = 1-9 ]		
* Spleen		Congestion	Marked
	[ Congestion TGLS = 3-3,11 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:47

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

**Lab:** LITRI

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**ANIMAL ID:** 572

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 713

**DOSE:** 5.0MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/H572

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:47

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 573

TRT#: 14

SEX: Female

DAY ON TEST: 731

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H573

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* 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	* Islets, Pancreatic	* Larynx	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Bone Marrow		Lymphoma Malignant	
* Clitoral Gland		Ectasia	Mild
* Kidney		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 6-3 ]			
* Liver		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 4-11,3-10,5-3 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
		Lymphoma Malignant	
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 8-4 ]			
[ Lymphoma Malignant TGLS = 10,13-4 ]			
[ Pigmentation TGLS = 8-4 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Mild
[ Lymphoma Malignant TGLS = 9-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Mammary Gland		Carcinoma	
Note: MISTAKEN AS LYMPH NODE AT GROSS			
[ Carcinoma TGLS = 1-9 ]			
* Pituitary Gland	Pars Distalis	Necrosis	Moderate
[ Necrosis TGLS = 11-8 ]			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 573

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H573

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Spleen  
[ Lymphoma Malignant TGLS = 2-3 ]

Lymphoma Malignant

\* Thyroid Gland

Hyperplasia

Cystic, Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 574

TRT#: 14

SEX: Female

DAY ON TEST: 731

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H574

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Lymph Node, Mandibular	* Mammary Gland	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mediastinal	* Thymus
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INSUFFICIENT TISSUE

* Parathyroid Gland
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OBSERVATIONS

* Bone		Hyperostosis	
* Liver		Clear Cell Focus	
[ Clear Cell Focus TGLS = 5-3 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Moderate
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 7-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
[ Hyperplasia TGLS = 2-5,6-4 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 2-5,6-4 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Ovary			
Note: TGL LESION = FOLLICULAR HEMORRAGE-NOT SIGNIF LESION			
* Spleen		Hyperplasia	Macrophage, Marked
[ Hyperplasia TGLS = 1-3,9 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 574

**TRT#:** 14  
**DOSE:** 5.0MG/M3

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 731  
**HISTO:** MZ031-H574

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thyroid Gland

Hyperplasia

Cystic, Moderate

\* Uterus

Endometrium

Hyperplasia

Cystic, Moderate

[ Hyperplasia TGLS = 3-10 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 576

TRT#: 16

SEX: Female

DAY ON TEST: 459

DOSE: 5.0MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/H576

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Heart	Venule	Inflammation	Chronic Active, Mild
* Lung		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 2-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Hyperplasia TGLS = 3-4 ]			
* Uterus	Endometrium	Hyperplasia	Mild
[ Hyperplasia TGLS = 1-6,9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 577

TRT#: 14

SEX: Female

DAY ON TEST: 732

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H577

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Intestine Small, Ileum [ Lymphoma Malignant TGLS = 3-9 ]		Lymphoma Malignant	
* Lung [ Inflammation TGLS = 5-4 ]	Alveolus	Inflammation Pigmentation	Chronic, Moderate Mild
* Lymph Node, Bronchial [ Pigmentation TGLS = 4-4 ]		Hyperplasia Pigmentation	Lymphoid, Mild Mild
* Lymph Node, Mesenteric [ Lymphoma Malignant TGLS = 1-5 ]		Lymphoma Malignant	
* Mammary Gland		Hyperplasia	Glandular, Minimal
* Ovary Note: TGLNODULE=FOLLICLE - NOT SIGNIF. LESION			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 578

TRT#: 14

SEX: Female

DAY ON TEST: 720

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H578

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Clitoral Gland	* Esophagus
* Islets, Pancreatic	* Larynx	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Stomach, Forestomach	* Thyroid Gland	* Trachea

AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Adrenal Cortex		Lymphoma Malignant	
* Bone Marrow		Lymphoma Malignant	
* Brain		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 11-1 ]			
* Heart		Lymphoma Malignant	
* Kidney		Lymphoma Malignant	
* Liver		Hepatocellular Adenoma	
	Hepatocyte	Lymphoma Malignant	Moderate
[ Hepatocellular Adenoma TGLS = 5-9 ]			
[ Lymphoma Malignant TGLS = 6-3,9 ]			
[ Necrosis TGLS = 6-3,9 ]			
* Lung		Lymphoma Malignant	
	Alveolus	Pigmentation	Mild
[ Lymphoma Malignant TGLS = 10-4 ]			
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Mild
[ Lymphoma Malignant TGLS = 9-4,8-2 ]			
[ Pigmentation TGLS = 9-4 ]			
* Lymph Node, Mandibular		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-4,8-2 ]			
* Lymph Node, Mediastinal		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 9-4,8-2 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 578	<b>TRT#:</b> 14 <b>DOSE:</b> 5.0MG/M3	<b>SEX:</b> Female <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 720 <b>HISTO:</b> MZ031/H578
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Lymph Node, Mesenteric [ Lymphoma Malignant TGLS = 9-4,8-2 ]		Lymphoma Malignant	
* Mammary Gland		Lymphoma Malignant	
* Nose	Respirat Epith	Degeneration	Minimal
* Ovary		Lymphoma Malignant	
* Salivary Glands		Lymphoma Malignant	
Skeletal Muscle		Lymphoma Malignant	
Note: SKIN LESION INCLUDES MUSCLE [ Lymphoma Malignant TGLS = 1-11 ]			
Skin [ Lymphoma Malignant TGLS = 2-12 ]	Subcut Tiss	Lymphoma Malignant	
* Spleen [ Lymphoma Malignant TGLS = 3-3 ]		Lymphoma Malignant	
* Stomach, Glandular		Lymphoma Malignant	
* Thymus		Lymphoma Malignant	
* Urinary Bladder		Lymphoma Malignant	
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 579

TRT#: 14

SEX: Female

DAY ON TEST: 731

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H579

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Clitoral Gland	* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Bone		Hyperostosis	
Eye	Cornea	Inflammation	Mild
[ Inflammation TGLS = 3-13 ]			
Harderian Gland		Adenoma	
[ Adenoma TGLS = 2-12 ]			
* Kidney		Lymphoma Malignant	
* Liver		Lymphoma Malignant	
* Lung	Alveolar Epith	Fibrosis	Minimal
	Alveolus	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
		Pigmentation	Mild
		Proteinosis	Moderate
[ Fibrosis TGLS = 6,7-4,10 ]			
* Lymph Node, Bronchial		Pigmentation	Minimal
[ Pigmentation TGLS = 5-4 ]			
* Spleen		Lymphoma Malignant	
[ Lymphoma Malignant TGLS = 4-3,9 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 1-11 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:48

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

**Lab:** LITRI

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**ANIMAL ID:** 579

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H579

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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Animal Note: MES LN NOT PRESENT ON RECUTS

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 581

TRT#: 14

SEX: Female

DAY ON TEST: 736

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H581

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Lung		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
[ Inflammation TGLS = 2-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
[ Hyperplasia TGLS = 3-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Skin		Sarcoma	
[ Sarcoma TGLS = 1-9 ]			
* Thyroid Gland		Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 582

TRT#: 14

SEX: Female

DAY ON TEST: 732

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H582

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Thymus

OBSERVATIONS

* Adrenal Cortex	Spindle Cell	Hyperplasia	Marked
* Lung	Alveolar Epith	Alveolar/Bronchiolar Carcinoma	
	Alveolus	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Moderate
		Pigmentation	Mild
		Proteinosis	Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 1-9 ]		
	[ Inflammation TGLS = 2-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Hyperplasia TGLS = 3-4 ]		
* Lymph Node, Mediastinal		Pigmentation	Minimal
* Ovary			
	Note: TGL PIGMENT=HEMOSIDERIN- NOT SIGNIF LESION		
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 583

TRT#: 14

SEX: Female

DAY ON TEST: 731

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H583

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

INSUFFICIENT TISSUE

* Lymph Node, Mediastinal	* Thymus
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OBSERVATIONS

* Bone		Hyperostosis	
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Moderate
	[ Alveolar/Bronchiolar Adenoma TGLS = 5-4 ]		
	[ Inflammation TGLS = 6-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Moderate
	[ Pigmentation TGLS = 7-4 ]		
* Nose	Respirat Epith	Degeneration	Minimal
* Ovary		Angiectasis	Mild
	Note: WITH MARKED LEIOMYOCYTE PROLIFERATION		
	[ Angiectasis TGLS = 2-6 ]		

PRIMARY CAUSE OF DEATH

-  
Animal Note: TGL1 RED = CONGESTION - NOT SIGNIF. LESION  
Animal Note: NO LESION FOUND FOR TGL3-"3MM DEFORMITY"

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 584

TRT#: 14

SEX: Female

DAY ON TEST: 426

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H584

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Larynx	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Lymphoma Malignant	
* Islets, Pancreatic		Lymphoma Malignant	
* Kidney		Lymphoma Malignant	
* Liver		Lymphoma Malignant	
* Lung	Alveolus	Pigmentation	Minimal
Lymph Node	Iliac	Lymphoma Malignant	
	Pancreatic	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 9-4,4-10,3-5,6-9,1-6,8-2 ]		
	[ Lymphoma Malignant TGLS = 9-4,4-10,3-5,6-9,1-6,8-2 ]		
	[ Lymphoma Malignant TGLS = 9-4,4-10,3-5,6-9,1-6,8-2 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
		Pigmentation	Minimal
	[ Lymphoma Malignant TGLS = 9-4,4-10,3-5,6-9,1-6,8-2 ]		
* Lymph Node, Mandibular		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 9-4,4-10,3-5,6-9,1-6,8-2 ]		
* Lymph Node, Mediastinal		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 9-4,4-10,3-5,6-9,1-6,8-2 ]		
* Lymph Node, Mesenteric		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 9-4,4-10,3-5,6-9,1-6,8-2 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Spleen		Lymphoma Malignant	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 584

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 426

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H584

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Lymphoma Malignant TGLS = 2-3 ]

\* Thymus

Lymphoma Malignant

\* Uterus

Endometrium

Hyperplasia

Cystic, Mild

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[ Hyperplasia TGLS = 5-6 ]

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 585

TRT#: 14

SEX: Female

DAY ON TEST: 293

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H585

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

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

* Lung	Alveolar Epith Alveolus	Hyperplasia Pigmentation	Minimal Mild
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Mild Mild
[ Pigmentation TGLS = 4-4 ]			
* Nose	Respirat Epith	Degeneration	Minimal
Skin		Alopecia	Mild
[ Alopecia TGLS = 1-9 ]			
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 586

TRT#: 14

SEX: Female

DAY ON TEST: 733

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H586

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Bone		Hyperostosis	
* Clitoral Gland		Pigmentation	Mild
[ Pigmentation TGLS = 1-6 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
[ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Moderate
[ Pigmentation TGLS = 5-4 ]			
* Pituitary Gland	Pars Distalis	Angiectasis	Marked
[ Angiectasis TGLS = 6-8 ]			
* Spleen		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-3 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 587

TRT#: 14

SEX: Female

DAY ON TEST: 736

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H587

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Uterus

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 6-3 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Moderate
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
[ Inflammation TGLS = 8-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 4-6 ]			
[ Pigmentation TGLS = 7-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 4-6 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 4-6 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Mild
* Saliv Glands			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 587

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H587

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: TGL 3,SALIVARY CYST, NOT FOUND ON 3 RECUTS

Skin

Inflammation

Chronic, Marked

[ Inflammation TGLS = 1-9,2-10 ]

\* Spleen

Hematopoietic Cell Proliferation

Mild

[ Hematopoietic Cell Proliferation TGLS = 5-3 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 588

TRT#: 14

SEX: Female

DAY ON TEST: 730

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H588

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Clitoral Gland	* Intestine Large, Rectum
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OBSERVATIONS

* Lung		Alveolar/Bronchiolar Carcinoma	
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Minimal
	[ Alveolar/Bronchiolar Carcinoma TGLS = 2-9 ]		
	[ Inflammation TGLS = 4-4,5-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
	[ Hyperplasia TGLS = 1-2 ]		
	[ Pigmentation TGLS = 1-2,6-4 ]		
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Marked
		Pigmentation	Mild
	[ Hyperplasia TGLS = 1-2 ]		
	[ Pigmentation TGLS = 1-2,6-4 ]		
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
	[ Hyperplasia TGLS = 3-8 ]		
* Thyroid Gland		Hyperplasia	Cystic, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:48

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

**Lab:** LITRI

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**ANIMAL ID:** 588

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H588

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 589

TRT#: 14

SEX: Female

DAY ON TEST: 730

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H589

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Intestine Large, Rectum	* Parathyroid Gland
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INSUFFICIENT TISSUE

* Lymph Node, Mediastinal
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OBSERVATIONS

* Clitoral Gland [ Pigmentation TGLS = 1-6 ]		Pigmentation	Mild
* Esophagus Note: SQUAM CELL CA IN SITU		Squamous Cell Carcinoma	
* Lung [ Inflammation TGLS = 4-4,9,3-4,5-4,9 ]	Alveolus	Inflammation	Chronic, Moderate
	Alveolus	Pigmentation	Moderate
		Proteinosis	Minimal
* Lymph Node, Bronchial [ Hyperplasia TGLS = 6-4 ]		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
* Nose	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal
Tooth		Odontoma	
* Uterus [ Hyperplasia TGLS = 2-10 ]	Endometrium	Hyperplasia	Cystic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:48

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

**Lab:** LITRI

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**ANIMAL ID:** 589

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H589

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 590

TRT#: 14

SEX: Female

DAY ON TEST: 733

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H590

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Brain [ Compression TGLS = 5-1 ]	Hypothalamus	Compression	
* Lung [ Pigmentation TGLS = 2-4 ]	Alveolar Epith Alveolus Alveolus	Hyperplasia Inflammation Pigmentation Proteinosis	Minimal Chronic, Moderate Mild Minimal
* Lymph Node, Bronchial [ Pigmentation TGLS = 3-4 ]		Hyperplasia Pigmentation	Lymphoid, Mild Moderate
* Mammary Gland [ Hyperplasia TGLS = 1-6 ]		Hyperplasia	Glandular, Moderate
* Nose	Respirat Epith Respirat Epith Respirat Epith	Degeneration Inflammation Metaplasia	Minimal Suppurative, Mild Squamous, Mild
* Pituitary Gland [ Adenoma TGLS = 4-8 ]	Pars Distalis	Adenoma	
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:48

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

**Lab:** LITRI

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**ANIMAL ID:** 590

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H590

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 591

TRT#: 16

SEX: Female

DAY ON TEST: 644

DOSE: 5.0MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/H591

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Intestine Large, Rectum	* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Kidney		Nephropathy	Mild
* Liver		Hepatocellular Carcinoma	
[ Hepatocellular Carcinoma TGLS = 1-3,9 ]			
* Lung		Hepatocellular Carcinoma	Metastatic (Uncertain Primary Site)
	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Mild
[ Hepatocellular Carcinoma TGLS = 2,3-4 ]			
[ Pigmentation TGLS = 4-4 ]			
[ Proteinosis TGLS = 4-4 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 592

TRT#: 14

SEX: Female

DAY ON TEST: 729

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H592

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
		Pigmentation	Moderate
	[ Inflammation TGLS = 5-4 ]		
	[ Pigmentation TGLS = 4-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
	[ Pigmentation TGLS = 3-4 ]		
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Hyperplasia	Lymphoid, Mild
	[ Hyperplasia TGLS = 2-3 ]		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 593

TRT#: 14

SEX: Female

DAY ON TEST: 644

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H593

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Kidney	Cortex	Cyst	
[ Cyst TGLS = 2-3 ]			
* Lung	Alveolar Epith	Alveolar/Bronchiolar Carcinoma	
	Alveolus	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Mild
[ Alveolar/Bronchiolar Carcinoma TGLS = 6-4,9 ]		Pigmentation	Moderate
[ Inflammation TGLS = 5-4 ]		Proteinosis	Moderate
[ Proteinosis TGLS = 5-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 3-4 ]		Pigmentation	Minimal
* Nose	Respirat Epith	Degeneration	Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 594

TRT#: 14

SEX: Female

DAY ON TEST: 673

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H594

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Bone Marrow	* Brain	* Clitoral Gland
* Esophagus	* Heart	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Parathyroid Gland	* Salivary Glands	* Thyroid Gland	* Trachea

MISSING

* Adrenal Cortex	* Adrenal Medulla	* Intestine Small, Ileum
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OBSERVATIONS

* Gallbladder		Sarcoma	Metastatic (Mesentery)
* Intestine Large, Cecum		Sarcoma	Metastatic (Mesentery)
* Liver		Hepatocellular Carcinoma	
		Sarcoma	Metastatic (Mesentery)
	[ Hepatocellular Carcinoma TGLS = 8-3,10 ]		
	[ Sarcoma TGLS = 9-3,10,11 ]		
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Pigmentation	Mild
		Sarcoma	Metastatic (Mesentery)
Lymph Node	Pancreatic	Sarcoma	Metastatic (Mesentery)
	Renal	Sarcoma	Metastatic (Mesentery)
	[ Sarcoma TGLS = 4-13 ]		
	[ Sarcoma TGLS = 5-14,15 ]		
* Lymph Node, Bronchial		Pigmentation	Mild
		Sarcoma	Metastatic (Mesentery)
	[ Sarcoma TGLS = 12-4 ]		
* Lymph Node, Mediastinal		Sarcoma	Metastatic (Mesentery)
	[ Sarcoma TGLS = 11-2 ]		
* Lymph Node, Mesenteric		Sarcoma	Metastatic (Mesentery)
	[ Sarcoma TGLS = 10-16 ]		
Mesentery		Sarcoma	
	[ Sarcoma TGLS = 1-5,12 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 594	<b>TRT#:</b> 14 <b>DOSE:</b> 5.0MG/M3	<b>SEX:</b> Female <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 673 <b>HISTO:</b> MZ031/H594
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Ovary		Sarcoma	Metastatic (Mesentery)
* Pancreas		Sarcoma	Metastatic (Mesentery)
[ Sarcoma TGLS = 3-5 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 13-8 ]			
Skeletal Muscle		Sarcoma	Metastatic (Mesentery)
[ Sarcoma TGLS = 6,7-17,18 ]			
* Spleen		Hyperplasia	Lymphoid, Moderate
		Sarcoma	Metastatic (Mesentery)
[ Hyperplasia TGLS = 2-3,9 ]			
[ Sarcoma TGLS = 2-3,9 ]			
* Stomach, Forestomach		Sarcoma	Metastatic (Mesentery)
* Stomach, Glandular		Sarcoma	Metastatic (Mesentery)
* Thymus		Sarcoma	Metastatic (Mesentery)
* Urinary Bladder		Sarcoma	Metastatic (Mesentery)
* Uterus		Sarcoma	Metastatic (Mesentery)

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 595

TRT#: 16

SEX: Female

DAY ON TEST: 469

DOSE: 5.0MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/H595

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Lung		Alveolar/Bronchiolar Carcinoma	
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 4-4,9 ]		
	[ Inflammation TGLS = 5-4 ]		
	[ Proteinosis TGLS = 5-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Marked
		Pigmentation	Minimal
	[ Hyperplasia TGLS = 3-4 ]		
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
	[ Hyperplasia TGLS = 3-4 ]		
* Nose	Olfactory Epi	Degeneration	Minimal
	Respirat Epith	Degeneration	Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 596

TRT#: 14

SEX: Female

DAY ON TEST: 731

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H596

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Bronchial	* Thymus
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OBSERVATIONS

* Bone Marrow		Myelofibrosis	Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 4-4 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Ovary		Cyst	
[ Cyst TGLS = 1-6 ]			
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 2-6,9 ]			

PRIMARY CAUSE OF DEATH

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Animal Note: TGL3 NOT FOUND, NO BLN ON 3 RECUTS

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 597

TRT#: 16

SEX: Female

DAY ON TEST: 459

DOSE: 5.0MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/H597

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mediastinal

**OBSERVATIONS**

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
	[ Inflammation TGLS = 4-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
	[ Hyperplasia TGLS = 3-4 ]		
* Uterus	Endometrium	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 599

TRT#: 14

SEX: Female

DAY ON TEST: 70

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H599

**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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Bronchial	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

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

* Lung	Alveolus	Pigmentation	Minimal
* Nose			
Note: TGL"NOSE" IA SKIN OF NOSE			
Skin		Hemorrhage	Mild
[ Hemorrhage TGLS = 1-9 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 600

TRT#: 14

SEX: Female

DAY ON TEST: 732

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H600

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Clitoral Gland		Pigmentation	Mild
[ Pigmentation TGLS = 1-6 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
[ Inflammation TGLS = 4-4 ]			
[ Pigmentation TGLS = 3-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
[ Hyperplasia TGLS = 2-4 ]			
* Mammary Gland		Hyperplasia	Glandular, Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 602

TRT#: 14

SEX: Female

DAY ON TEST: 670

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H602

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	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mediastinal	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mesenteric	* Pituitary Gland
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OBSERVATIONS

* Clitoral Gland [ Inflammation TGLS = 5-6 ]		Inflammation	Chronic Active, Marked
* Lung [ Inflammation TGLS = 7-4 ] [ Pigmentation TGLS = 7-4 ]	Alveolus	Inflammation Pigmentation	Chronic, Mild Mild
* Lymph Node, Bronchial [ Hyperplasia TGLS = 4-6 ] [ Pigmentation TGLS = 6-4 ]		Hyperplasia Pigmentation	Lymphoid, Mild Mild
* Lymph Node, Mandibular [ Hyperplasia TGLS = 4-6 ]		Hyperplasia	Lymphoid, Marked
* Mammary Gland [ Hyperplasia TGLS = 3-6,9 ]		Hyperplasia	Glandular, Moderate
* Nose	Olfactory Epi Respirat Epith	Degeneration Inflammation	Minimal Suppurative, Moderate
* Ovary		Cyst	
* Pituitary Gland			

Note: TGL8 NO PIT ON 3 RECUTS OR WET TISS. REVIEW

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 602

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 670

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H602

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thyroid Gland

Hyperplasia

Cystic, Mild

Tooth

Developmental Malformation

Marked

[ Developmental Malformation TGLS = 1-7 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 603

TRT#: 14

SEX: Female

DAY ON TEST: 731

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H603

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Gallbladder
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Lung		Fibrosis	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Moderate
[ Proteinosis TGLS = 3-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Pigmentation TGLS = 2-4 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
[ Hyperplasia TGLS = 4-8 ]			
* Spleen		Hyperplasia	Lymphoid, Moderate
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 1-9 ]			

PRIMARY CAUSE OF DEATH

-

Animal Note: 81

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 604

TRT#: 16

SEX: Female

DAY ON TEST: 459

DOSE: 5.0MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/H604

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

Ear [ Hemorrhage TGLS = 1-9 ]	External Ear	Hemorrhage	Minimal
* Lung	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Pigmentation	Minimal
* Nose	Respirat Epith	Degeneration	Mild
* Uterus [ Hyperplasia TGLS = 2-6 ]	Endometrium	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 605

TRT#: 14

SEX: Female

DAY ON TEST: 141

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H605

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex

\* Adrenal Medulla

\* Bone

\* Bone Marrow

\* Brain

\* Esophagus

\* Heart

\* Islets, Pancreatic

\* Kidney

\* Larynx

\* Liver

\* Lymph Node, Bronchial

\* Lymph Node, Mandibular

\* Mammary Gland

\* Ovary

\* Pancreas

\* Parathyroid Gland

\* Pituitary Gland

\* Salivary Glands

\* Spleen

\* Thymus

\* Thyroid Gland

\* Trachea

\* Uterus

**MISSING**

\* Clitoral Gland

\* Lymph Node, Mediastinal

\* Lymph Node, Mesenteric

**AUTO PRECLUDES DIAG.**

\* Gallbladder

\* Intestine Large, Cecum

\* Intestine Large, Colon

\* Intestine Large, Rectum

\* Intestine Small, Duodenum

\* Intestine Small, Ileum

\* Intestine Small, Jejunum

\* Stomach, Forestomach

\* Stomach, Glandular

\* Urinary Bladder

**OBSERVATIONS**

\* Lung

Alveolus

Pigmentation

Mild

\* Nose

Respirat Epith

Inflammation

Suppurative, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 606

TRT#: 14

SEX: Female

DAY ON TEST: 675

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H606

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
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Brain	Hypothalamus	Carcinoma	Metastatic (Uncertain Primary Site)
	Pons	Carcinoma	Metastatic (Uncertain Primary Site)
[ Carcinoma TGLS = 6-1,7-1 ]			
[ Carcinoma TGLS = 6-1,7-1 ]			
* Clitoral Gland		Pigmentation	Minimal
* Lung		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Mild
[ Inflammation TGLS = 4-4 ]			
[ Proteinosis TGLS = 4-4 ]			
* Lymph Node, Bronchial		Pigmentation	Mild
[ Pigmentation TGLS = 3-4 ]			
* Nose	Olfactory Epi	Degeneration	Moderate
	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Moderate
* Pituitary Gland	Pars Distalis	Carcinoma	
[ Carcinoma TGLS = 8-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 606

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 675

**DOSE:** 5.0MG/M3

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H606

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 609

TRT#: 14

SEX: Female

DAY ON TEST: 731

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H609

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

INSUFFICIENT TISSUE

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Lung		Fibrosis	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Minimal
	[ Inflammation TGLS = 4-4 ]		
	[ Pigmentation TGLS = 4-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Pigmentation TGLS = 3-4 ]		
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
Skin		Squamous Cell Papilloma	
	[ Squamous Cell Papilloma TGLS = 1-9 ]		
* Thyroid Gland		Hyperplasia	Cystic, Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
	[ Hyperplasia TGLS = 2-6,10 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 610

TRT#: 14

SEX: Female

DAY ON TEST: 726

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H610

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	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Bone		Hyperostosis	Mild
* Clitoral Gland		Ectasia	Minimal
		Pigmentation	Mild
	[ Ectasia TGLS = 2-6 ]		
	[ Pigmentation TGLS = 2-6 ]		
* Liver		Hepatocellular Adenoma	
	[ Hepatocellular Adenoma TGLS = 3-12 ]		
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	[ Pigmentation TGLS = 5-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Minimal
	[ Hyperplasia TGLS = 6-4 ]		
	[ Pigmentation TGLS = 6-4 ]		
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
	[ Hyperplasia TGLS = 6-4 ]		
* Mammary Gland		Carcinoma	
	[ Carcinoma TGLS = 1-11 ]		
* Pituitary Gland	Pars Distalis	Angiectasis	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 610	<b>TRT#:</b> 14 <b>DOSE:</b> 5.0MG/M3	<b>SEX:</b> Female <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 726 <b>HISTO:</b> MZ031/H610
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Angiectasis TGLS = 7-8 ] [ Hyperplasia TGLS = 7-8 ]	Pars Distalis	Hyperplasia	Mild
* Spleen		Hyperplasia	Lymphoid, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 611

TRT#: 14

SEX: Female

DAY ON TEST: 510

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H611

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Heart	* Larynx
* Liver	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Thymus
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric
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AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Clitoral Gland		Pigmentation	Mild
* Kidney		Teratoma Malignant	Metastatic (Uncertain Primary Site)
[ Teratoma Malignant TGLS = 4-3,10 ]			
* Lung	Alveolus	Inflammation	Chronic, Mild
		Pigmentation	Mild
		Teratoma Malignant	Metastatic (Uncertain Primary Site)
[ Teratoma Malignant TGLS = 6-11 ]			
* Lymph Node, Bronchial		Congestion	Moderate
		Pigmentation	Mild
* Ovary		Teratoma Malignant	
[ Teratoma Malignant TGLS = 3-6 ]			
Skin		Edema	Moderate
[ Edema TGLS = 5-12 ]			
* Spleen		Congestion	Marked
[ Congestion TGLS = 1-3 ]			
* Uterus		Teratoma Malignant	Metastatic (Uncertain Primary Site)
[ Teratoma Malignant TGLS = 2-6 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:48

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

**Lab:** LITRI

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**ANIMAL ID:** 611

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 510

**DOSE:** 5.0MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/H611

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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Animal Note: 1

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 612

TRT#: 14

SEX: Female

DAY ON TEST: 729

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H612

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

* Clitoral Gland		Pigmentation	Mild
[ Pigmentation TGLS = 1-6 ]			
* Liver		Basophilic Focus	
[ Basophilic Focus TGLS = 2-10 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 5-4 ]			
[ Pigmentation TGLS = 5-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Moderate
[ Pigmentation TGLS = 4-4 ]			
* Pituitary Gland	Pars Intermed	Adenoma	
[ Adenoma TGLS = 6-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 3-6,9 ]			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:48

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

**Lab:** LITRI

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**ANIMAL ID:** 612

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H612

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 613

TRT#: 14

SEX: Female

DAY ON TEST: 732

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H613

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                             |                          |                            |
|--------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla        | * Bone Marrow               | * Brain                  | * Clitoral Gland           |
| * Esophagus              | * Gallbladder               | * Heart                  | * Intestine Large, Cecum   |
| * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic     | * Kidney                    | * Larynx                 | * Liver                    |
| * Lymph Node, Mesenteric | * Mammary Gland             | * Nose                   | * Ovary                    |
| * Pancreas               | * Parathyroid Gland         | * Pituitary Gland        | * Salivary Glands          |
| * Stomach, Forestomach   | * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            |
| * Trachea                | * Urinary Bladder           |                          |                            |

MISSING

- |                           |                           |
|---------------------------|---------------------------|
| * Intestine Large, Rectum | * Lymph Node, Mediastinal |
|---------------------------|---------------------------|

OBSERVATIONS

- |                              |             |                                  |                  |
|------------------------------|-------------|----------------------------------|------------------|
| * Adrenal Cortex             |             | Adenoma                          |                  |
| * Bone                       |             | Hyperostosis                     |                  |
| * Lung                       |             | Inflammation                     | Chronic, Mild    |
|                              | Alveolus    | Pigmentation                     | Moderate         |
|                              | Alveolus    | Proteinosis                      | Mild             |
| [ Pigmentation TGLS = 3-4 ]  |             |                                  |                  |
| [ Proteinosis TGLS = 3-4 ]   |             |                                  |                  |
| * Lymph Node, Bronchial      |             | Hyperplasia                      | Lymphoid, Mild   |
|                              |             | Pigmentation                     | Mild             |
| [ Hyperplasia TGLS = 1-6 ]   |             |                                  |                  |
| * Lymph Node, Mandibular     |             | Hyperplasia                      | Lymphoid, Marked |
| [ Hyperplasia TGLS = 1-6 ]   |             |                                  |                  |
| * Spleen                     |             | Hematopoietic Cell Proliferation | Mild             |
| * Uterus                     | Endometrium | Hyperplasia                      | Cystic, Moderate |
| [ Hyperplasia TGLS = 2-6,9 ] |             |                                  |                  |

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 614	<b>TRT#:</b> 16	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 200
	<b>DOSE:</b> 5.0MG/M3 LUNGTX	<b>DISP:</b> Scheduled Sacrifice	<b>HISTO:</b> MZO31-H614

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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<b>NORMAL</b>			
* Kidney	* Nose		

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<b>MISSING</b>			
* Lymph Node, Mediastinal			

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<b>OBSERVATIONS</b>			
* Lung		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Minimal
[ Inflammation TGLS = 3-4 ]			
* Lymph Node, Bronchial		Pigmentation	Minimal
[ Pigmentation TGLS = 2-4 ]			

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



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 616

TRT#: 14

SEX: Female

DAY ON TEST: 619

DOSE: 5.0MG/M3

DISP: Moribund Sacrifice

HISTO: MZ031/H616

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone Marrow	* Brain	* Esophagus
* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Lymph Node, Mandibular
* Mammary Gland	* Ovary	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Bronchial

INSUFFICIENT TISSUE

\* Bone

OBSERVATIONS

* Adrenal Cortex		Hepatocholangiocarcinoma	Metastatic (Liver)
* Clitoral Gland		Ectasia	Mild
		Pigmentation	Mild
	[ Ectasia TGLS = 1-6 ]		
	[ Pigmentation TGLS = 1-6 ]		
* Heart		Hepatocholangiocarcinoma	Metastatic (Liver)
* Intestine Large, Colon		Hepatocholangiocarcinoma	Metastatic (Liver)
* Intestine Small, Duodenum		Hepatocholangiocarcinoma	Metastatic (Liver)
* Kidney		Hepatocholangiocarcinoma	Metastatic (Liver)
		Necrosis	Moderate
	[ Necrosis TGLS = 5-3 ]		
* Liver		Hepatocholangiocarcinoma	
	[ Hepatocholangiocarcinoma TGLS = 4-3,9,10 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
		Hepatocholangiocarcinoma	Metastatic (Liver)
	Alveolus	Pigmentation	Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 9-11 ]		
	[ Hepatocholangiocarcinoma TGLS = 9-4,11 ]		
* Lymph Node, Mediastinal		Hepatocholangiocarcinoma	Metastatic (Liver)

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 616	<b>TRT#:</b> 14 <b>DOSE:</b> 5.0MG/M3	<b>SEX:</b> Female <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 619 <b>HISTO:</b> MZ031/H616
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hepatocholangiocarcinoma TGLS = 8-2 ]		
* Lymph Node, Mesenteric		Hepatocholangiocarcinoma
[ Hepatocholangiocarcinoma TGLS = 8-2 ]		
Mesentery		Hepatocholangiocarcinoma
[ Hepatocholangiocarcinoma TGLS = 2-13 ]		
* Nose	Respirat Epith	Inflammation
* Pancreas		Hepatocholangiocarcinoma
[ Hepatocholangiocarcinoma TGLS = 3-5 ]		
Skeletal Muscle		Hepatocholangiocarcinoma
[ Hepatocholangiocarcinoma TGLS = 7-12 ]		
* Spleen		Hepatocholangiocarcinoma
* Stomach, Glandular		Hepatocholangiocarcinoma
* Thymus		Hepatocholangiocarcinoma
Tissue NOS		
Note: TNOS=MESENTERY N.B.		
* Uterus	Endometrium	Hyperplasia

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 617

TRT#: 16

SEX: Female

DAY ON TEST: 696

DOSE: 5.0MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/H617

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mesenteric

OBSERVATIONS

* Bone Marrow		Hemangiosarcoma	Metastatic (Uncertain Primary Site)
* Lung		Alveolar/Bronchiolar Carcinoma	
	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
	[ Alveolar/Bronchiolar Carcinoma TGLS = 4-4,10 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
	[ Hyperplasia TGLS = 5-4 ]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Spleen		Hemangiosarcoma	
	[ Hemangiosarcoma TGLS = 2,3-3,9 ]		
* Stomach, Forestomach		Squamous Cell Papilloma	
	[ Squamous Cell Papilloma TGLS = 6-5 ]		
* Thyroid Gland		Hyperplasia	Cystic, Minimal
Tissue NOS		Hemangiosarcoma	Metastatic (Uncertain Primary Site)
	[ Hemangiosarcoma TGLS = 1-11 ]		
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:48

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

**Lab:** LITRI

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**ANIMAL ID:** 617

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 696

**DOSE:** 5.0MG/M3 LUNGTX

**DISP:** Moribund Sacrifice

**HISTO:** MZ031/H617

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 618

TRT#: 16

SEX: Female

DAY ON TEST: 459

DOSE: 5.0MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/H618

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	Alveolus	Proteinosis	Minimal
	[ Inflammation TGLS = 3-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Minimal
	[ Hyperplasia TGLS = 2-4 ]		
* Nose	Respirat Epith	Degeneration	Minimal
* Uterus	Endometrium	Hyperplasia	Mild
	[ Hyperplasia TGLS = 1-6,9 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 619

TRT#: 14

SEX: Female

DAY ON TEST: 731

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H619

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
Eye	Cornea	Inflammation	Mild
[ Inflammation TGLS = 1-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Moderate
		Pigmentation	Marked
[ Inflammation TGLS = 5-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Moderate
[ Hyperplasia TGLS = 4-4 ]			
* Lymph Node, Mesenteric		Hemangioma	
[ Hemangioma TGLS = 3-5 ]			
* Nose	Respirat Epith	Degeneration	Mild
	Respirat Epith	Inflammation	Suppurative, Moderate
	Respirat Epith	Metaplasia	Squamous, Moderate
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 620

TRT#: 16

SEX: Female

DAY ON TEST: 498

DOSE: 5.0MG/M3 LUNGTX

DISP: Natural Death

HISTO: MZ031/H620

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Brain
* Esophagus	* Heart	* Islets, Pancreatic	* Kidney
* Larynx	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

AUTO PRECLUDES DIAG.

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

OBSERVATIONS

* Bone Marrow	Myeloid Cell	Hyperplasia	Moderate
* Clitoral Gland		Inflammation	Chronic, Mild
* Lung		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Pigmentation	Mild
Mesentery		Inflammation	Chronic Active, Marked
	Fat	Necrosis	Marked
		[ Inflammation TGLS = 5-9 ]	
		[ Necrosis TGLS = 5-9 ]	
Skin	Epidermis	Inflammation	Suppurative, Marked
	Subcut Tiss	Inflammation	Chronic Active, Moderate
	Subcut Tiss	Necrosis	Moderate
		[ Inflammation TGLS = 6,7-11,4-11 ]	
		[ Inflammation TGLS = 6,7-11,4-11 ]	
		[ Necrosis TGLS = 4-10 ]	
Urethra		Concretion	Marked
		[ Concretion TGLS = 2-12 ]	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 621

TRT#: 16

SEX: Female

DAY ON TEST: 658

DOSE: 5.0MG/M3 LUNGTX

DISP: Moribund Sacrifice

HISTO: MZ031/H621

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

\* Parathyroid Gland

OBSERVATIONS

* Bone		Hyperostosis	Marked
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Minimal
	[ Inflammation TGLS = 6,7-4 ]		
	[ Pigmentation TGLS = 8-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Hyperplasia TGLS = 5-4 ]		
	[ Pigmentation TGLS = 5-4,4-2 ]		
* Lymph Node, Mediastinal		Pigmentation	Minimal
	[ Pigmentation TGLS = 5-4,4-2 ]		
* Spleen		Hemangiosarcoma	
	[ Hemangiosarcoma TGLS = 1-3 ]		
* Thyroid Gland	Follicular Cel	Adenoma	
* Uterus	Endometrium	Hyperplasia	Cystic, Marked
	[ Hyperplasia TGLS = 3-6,9 ]		

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 622

TRT#: 14

SEX: Female

DAY ON TEST: 730

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H622

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	* Islets, Pancreatic	* Kidney
* Larynx	* Lymph Node, Mandibular	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Clitoral Gland		Pigmentation	Minimal
[ Pigmentation TGLS = 1-6 ]			
* Liver		Hepatocellular Adenoma	
Note: INFARCT ON END OF TUMOR			
[ Hepatocellular Adenoma TGLS = 2-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Minimal
[ Inflammation TGLS = 5-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Moderate
[ Hyperplasia TGLS = 4-4 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 4-4 ]			
* Nose	Respirat Epith	Metaplasia	Squamous, Minimal
* Spleen		Hyperplasia	Lymphoid, Moderate
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
[ Hyperplasia TGLS = 3-6,10 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:48

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

**Lab:** LITRI

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**ANIMAL ID:** 622

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H622

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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: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 624

TRT#: 14

SEX: Female

DAY ON TEST: 684

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H624

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Brain	* Clitoral Gland
* 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
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone	Pelvis	Fracture Hyperostosis	
Note: DX BASED ON SMALL AMT OSTEOID, PATHOL. FRACTURE			
* Bone Marrow		Myelofibrosis	Moderate
[ Myelofibrosis TGLS = 5-13 ]			
* Lung	Alveolar Epith	Hyperplasia Inflammation Pigmentation	Minimal Chronic, Moderate Mild
	Alveolus		
[ Inflammation TGLS = 4-4 ]			
[ Pigmentation TGLS = 4-4 ]			
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Marked Mild
[ Hyperplasia TGLS = 3-4 ]			
[ Pigmentation TGLS = 3-4 ]			
Skin			
Note: SLIDE 12 IS SKIN			
Note: TGL LESION NOT FOUND ON SLIDES OR WET TISS REVIEW			
Tissue NOS			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:48

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

**Lab:** LITRI

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**ANIMAL ID:** 624

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 684

**DOSE:** 5.0MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/H624

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Note: TNOS=HEMORRAGE AROUND FRACTURE CAUSED BY OSTEOSARC.

\* Uterus

Endometrium

Hyperplasia

Cystic, Moderate

[ Hyperplasia TGLS = 2-6,9 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 625

TRT#: 14

SEX: Female

DAY ON TEST: 733

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H625

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Bone		Hyperostosis	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 1-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Mild
[ Pigmentation TGLS = 2-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
* Lymph Node, Mediastinal		Pigmentation	Minimal
[ Pigmentation TGLS = 2-4 ]			
* Spleen		Hyperplasia	Lymphoid, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 626

TRT#: 14

SEX: Female

DAY ON TEST: 584

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H626

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Islets, Pancreatic	* Kidney	* Larynx	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea		

**MISSING**

* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Thymus
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**AUTO PRECLUDES DIAG.**

* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Urinary Bladder

**OBSERVATIONS**

* Liver	Hepatocyte	Histiocytic Sarcoma Necrosis	Moderate
[ Histiocytic Sarcoma TGLS = 3-3 ]			
[ Necrosis TGLS = 3-3 ]			
* Lung	Alveolus	Histiocytic Sarcoma Inflammation Pigmentation	Chronic, Minimal Mild
[ Histiocytic Sarcoma TGLS = 4-4 ]			
[ Inflammation TGLS = 4-4 ]			
Lymph Node	Pancreatic	Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 5-4 ]			
* Lymph Node, Bronchial		Histiocytic Sarcoma Pigmentation	Mild
[ Histiocytic Sarcoma TGLS = 5-4 ]			
[ Pigmentation TGLS = 5-4 ]			
* Ovary		Cyst	
* Spleen		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 2-3,9 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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**ANIMAL ID:** 626

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 584

**DOSE:** 5.0MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/H626

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Uterus

Inflammation

Suppurative, Moderate

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 627

TRT#: 14

SEX: Female

DAY ON TEST: 730

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H627

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Clitoral Gland	* Lymph Node, Mediastinal
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OBSERVATIONS

* Bone		Hyperostosis	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Minimal
	[ Inflammation TGLS = 3-4 ]		
	[ Pigmentation TGLS = 1-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Moderate
	[ Hyperplasia TGLS = 2-4 ]		
* Nose	Respirat Epith	Degeneration	Minimal
Stomach			
	Note: [ SQ CL PAPILOM ] TGLs = 4-9		
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate
	[ Hyperplasia TGLS = 4-9 ]		
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 628

TRT#: 14

SEX: Female

DAY ON TEST: 730

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H628

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Moderate
	[ Inflammation TGLS = 1-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
	[ Hyperplasia TGLS = 2-4 ]		
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
	[ Hyperplasia TGLS = 2-4 ]		
* Spleen		Hyperplasia	Lymphoid, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 630

TRT#: 14

SEX: Female

DAY ON TEST: 729

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H630

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	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Clitoral Gland	* Lymph Node, Mediastinal
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OBSERVATIONS

* Bone		Hyperostosis	
* Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-9 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Mild
[ Inflammation TGLS = 5-4 ]			
[ Pigmentation TGLS = 5-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 4-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 4-4 ]			
* Ovary		Cyst	
[ Cyst TGLS = 1-6 ]			
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
[ Angiectasis TGLS = 6-8 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 631

TRT#: 14

SEX: Female

DAY ON TEST: 640

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H631

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, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

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

* Intestine Small, Ileum
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OBSERVATIONS

* Liver	Hepatocyte	Hemangiosarcoma Necrosis	Moderate
[ Hemangiosarcoma TGLS = 3-3,9 ]			
* Lung	Alveolar Epith	Hyperplasia Inflammation Pigmentation	Mild Chronic, Minimal Mild
[ Inflammation TGLS = 6,7,8-4 ]	Alveolus		
* Lymph Node, Bronchial		Hyperplasia Pigmentation	Lymphoid, Moderate Mild
[ Hyperplasia TGLS = 5-4 ]			
[ Pigmentation TGLS = 5-4 ]			
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
* Nose	Respirat Epith	Degeneration	Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
[ Hematopoietic Cell Proliferation TGLS = 2-3 ]			
* Thyroid Gland		Hyperplasia	Cystic, Marked
[ Hyperplasia TGLS = 9-2 ]			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:48

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

**Lab:** LITRI

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**ANIMAL ID:** 631

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 640

**DOSE:** 5.0MG/M3

**DISP:** Natural Death

**HISTO:** MZ031/H631

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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:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 632	<b>TRT#:</b> 14 <b>DOSE:</b> 5.0MG/M3	<b>SEX:</b> Female <b>DISP:</b> Natural Death	<b>DAY ON TEST:</b> 533 <b>HISTO:</b> MZ031/H632
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

* Bone	* Brain	* Heart	* Parathyroid Gland
* Thyroid Gland			

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**MISSING**

* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Thymus
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**AUTO PRECLUDES DIAG.**

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Clitoral Gland
* Esophagus	* Gallbladder	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Larynx	* Liver
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Pituitary Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

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**OBSERVATIONS**

* Lung	Alveolus	Pigmentation	Moderate
* Lymph Node, Bronchial		Pigmentation	Moderate

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 633

TRT#: 16

SEX: Female

DAY ON TEST: 459

DOSE: 5.0MG/M3 LUNGTX

DISP: Scheduled Sacrifice

HISTO: MZ031/H633

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular
* Lymph Node, Mediastinal	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Minimal
		Pigmentation	Mild
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Minimal
		Pigmentation	Mild
			[ Hyperplasia TGLS = 4-4 ]
			[ Pigmentation TGLS = 4-4 ]
* Nose	Respirat Epith	Degeneration	Minimal
* Uterus	Endometrium	Hyperplasia	Moderate
			[ Hyperplasia TGLS = 1-6,9 ]

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 634

TRT#: 14

SEX: Female

DAY ON TEST: 732

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H634

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Brain	* Clitoral Gland
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Larynx	* Liver
* Lymph Node, Mandibular	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Bone		Hyperostosis	
* Bone Marrow		Lymphoma Malignant	
* Kidney		Lymphoma Malignant	
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Lymphoma Malignant	Moderate
	Alveolus	Pigmentation	Minimal
	[ Lymphoma Malignant TGLS = 4-4 ]		
Lymph Node	Iliac	Lymphoma Malignant	
	Renal	Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 3-2,5-9,6-10 ]		
	[ Lymphoma Malignant TGLS = 3-2,5-9,6-10 ]		
* Lymph Node, Bronchial		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 3-2,5-9,6-10 ]	Pigmentation	Minimal
* Lymph Node, Mediastinal		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 3-2,5-9,6-10 ]	Pigmentation	Mild
* Lymph Node, Mesenteric		Lymphoma Malignant	
	[ Lymphoma Malignant TGLS = 3-2,5-9,6-10 ]		
* Mammary Gland		Hyperplasia	Glandular, Moderate
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

**ANIMAL ID:** 634

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H634

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Ovary [ Cyst TGLS = 2-6 ]	Respirat Epith	Metaplasia Cyst	Squamous, Minimal
* Pituitary Gland [ Adenoma TGLS = 7-8 ]	Pars Distalis	Adenoma	
* Spleen [ Lymphoma Malignant TGLS = 1-3 ]		Lymphoma Malignant	
* Stomach, Glandular		Lymphoma Malignant	
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 635

TRT#: 14

SEX: Female

DAY ON TEST: 736

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H635

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	Ear	* Esophagus
* Gallbladder	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

\* Intestine Large, Rectum

OBSERVATIONS

Ear

Note: NCL ON RECUTS OR WET TISSUE REVIEW

* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
	[ Pigmentation TGLS = 3-4 ]	Proteinosis	Mild
Lymph Node	Pancreatic	Hyperplasia	Lymphoid, Moderate
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Moderate
	[ Pigmentation TGLS = 4-4 ]		
* Lymph Node, Mediastinal		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
Skin			
	Note: NO LESION IN SKIN OR EAR CANAL, RECUTS OR WET TISS. REV.		
* Spleen		Hyperplasia	Lymphoid, Mild
* Thyroid Gland		Hyperplasia	Cystic, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06  
**Test Type:** CHRONIC  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Nickel (II) oxide  
**CAS Number:** 1313-99-1

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 00:25:48  
**First Dose M/F:** NA / NA  
**Lab:** LITRI

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<b>ANIMAL ID:</b> 635	<b>TRT#:</b> 14 <b>DOSE:</b> 5.0MG/M3	<b>SEX:</b> Female <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 736 <b>HISTO:</b> MZ031-H635
<b>ORGAN AND ACCOUNTABLE SITE STATUS</b>			
* Uterus [ Hyperplasia TGLS = 1-6 ]	Endometrium	Hyperplasia	Cystic, Minimal
<b>PRIMARY CAUSE OF DEATH</b>	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 636

TRT#: 14

SEX: Female

DAY ON TEST: 495

DOSE: 5.0MG/M3

DISP: Natural Death

HISTO: MZ031/H636

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Heart
* Islets, Pancreatic	* Kidney	* Larynx	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Thyroid Gland	* Trachea	* Uterus

MISSING

* Gallbladder	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
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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	* Nose	* Stomach, Forestomach
* Stomach, Glandular	* Urinary Bladder		

OBSERVATIONS

* Liver		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 2,3,6-3,9,10 ]			
* Lung		Histiocytic Sarcoma	
	Alveolus	Pigmentation	Mild
* Lymph Node, Bronchial		Histiocytic Sarcoma	
		Pigmentation	Mild
[ Histiocytic Sarcoma TGLS = 4-4 ]			
* Lymph Node, Mediastinal		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 4-4 ]			
* Spleen		Histiocytic Sarcoma	
[ Histiocytic Sarcoma TGLS = 1-3 ]			
* Thymus		Histiocytic Sarcoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 637

TRT#: 14

SEX: Female

DAY ON TEST: 733

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H637

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* 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	* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

* Bone		Hyperostosis	
Harderian Gland		Adenoma	
[ Adenoma TGLS = 5-10 ]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Marked
[ Inflammation TGLS = 3-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Moderate
[ Hyperplasia TGLS = 4-4 ]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
* Stomach, Forestomach		Hyperkeratosis	Moderate
[ Hyperkeratosis TGLS = 2-5 ]			
* Thyroid Gland		Hyperplasia	Cystic, Mild
* Uterus		Hemangiosarcoma	
	Endometrium	Hyperplasia	Cystic, Minimal
[ Hemangiosarcoma TGLS = 1-9 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:48

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

**Lab:** LITRI

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**ANIMAL ID:** 637

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** 5.0MG/M3

**DISP:** Terminal Sacrifice

**HISTO:** MZ031-H637

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 638

TRT#: 14

SEX: Female

DAY ON TEST: 729

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H638

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	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mediastinal	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

OBSERVATIONS

* Bone		Hyperostosis	
* Clitoral Gland		Pigmentation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Minimal
	Alveolus	Pigmentation	Mild
[ Pigmentation TGLS = 5-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Mild
[ Hyperplasia TGLS = 4-4 ]			
[ Pigmentation TGLS = 3-4 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 4-4 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
	Respirat Epith	Metaplasia	Squamous, Minimal
* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
* Spleen		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 1-3 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 639

TRT#: 14

SEX: Female

DAY ON TEST: 732

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H639

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Esophagus	* Gallbladder	* Heart	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Kidney	* Larynx	* Liver	* Lymph Node, Mandibular
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal
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OBSERVATIONS

* Bone		Hyperostosis	
* Clitoral Gland		Pigmentation	Mild
[ Pigmentation TGLS = 1-6 ]			
* Intestine Large, Cecum		Hyperplasia	Lymphoid, Moderate
* Lung	Alveolar Epith	Hyperplasia	Minimal
		Inflammation	Chronic, Mild
	Alveolus	Pigmentation	Moderate
[ Inflammation TGLS = 5-4 ]			
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Moderate
		Pigmentation	Moderate
[ Hyperplasia TGLS = 4-4 ]			
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 4-4 ]			
* Nose	Respirat Epith	Inflammation	Suppurative, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Mild
[ Hyperplasia TGLS = 2-9 ]			

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05123-06

Test Type: CHRONIC

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Nickel (II) oxide

CAS Number: 1313-99-1

Date Report Requested: 10/23/2014

Time Report Requested: 00:25:48

First Dose M/F: NA / NA

Lab: LITRI

ANIMAL ID: 640

TRT#: 14

SEX: Female

DAY ON TEST: 729

DOSE: 5.0MG/M3

DISP: Terminal Sacrifice

HISTO: MZ031-H640

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Gallbladder	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Larynx
* Liver	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Intestine Large, Rectum	* Lymph Node, Mediastinal	* Parathyroid Gland
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OBSERVATIONS

* Bone		Hyperostosis	
* Lung		Alveolar/Bronchiolar Adenoma	
		Inflammation	Chronic, Mild
		Metaplasia	Squamous, Mild
	Alveolus	Pigmentation	Moderate
	Alveolus	Proteinosis	Minimal
	[ Alveolar/Bronchiolar Adenoma TGLS = 2-9 ]		
	[ Inflammation TGLS = 1-4 ]		
* Lymph Node, Bronchial		Hyperplasia	Lymphoid, Mild
		Pigmentation	Moderate
	[ Hyperplasia TGLS = 3-4 ]		
* Nose	Respirat Epith	Degeneration	Minimal
	Respirat Epith	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Moderate
* Pituitary Gland	Pars Distalis	Angiectasis	Minimal
* Spleen		Hyperplasia	Lymphoid, Mild
* Thyroid Gland		Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05123-06

**Test Type:** CHRONIC

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Nickel (II) oxide

**CAS Number:** 1313-99-1

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

**Time Report Requested:** 00:25:48

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

**Lab:** LITRI

**\*\* END OF REPORT \*\***