

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

NTP Study Number: C20609
Lock Date: 07/01/2013
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: NONE

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 1

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300001

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 3

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300003

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 5	TRT#: 5 DOSE: Usnic 360 ppm	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 95 HISTO: 021650300005
OBSERVATIONS			
* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration Inflammation	Minimal Chronic, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 7	TRT#: 5 DOSE: Usnic 360 ppm	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 95 HISTO: 021650300007
OBSERVATIONS			
* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration Inflammation	Mild Chronic, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 9

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300009

OBSERVATIONS

* Liver

Inflammation

Chronic, Minimal

Note: TGL 3 - NCL

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 11

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300011

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 13

TRT#: 6

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300013

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular
* 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			

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Hydronephrosis	Mild
		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration	Marked
		Inflammation	Chronic, Minimal
* Lung		Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Mast Cell, Mild
* Preputial Gland	Duct	Dilatation	Marked
	[Dilatation TGLs = 1-13]		

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 15

TRT#: 6

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300015

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* 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		

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Hydronephrosis	Minimal
		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration	Marked
		Inflammation	Chronic, Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Mast Cell, Moderate
* Preputial Gland		Inflammation	Suppurative, Moderate

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 17

TRT#: 4

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300017

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Nephropathy

Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 19

TRT#: 4

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300019

OBSERVATIONS

- * Kidney
- * Liver

Nephropathy
Inflammation

Minimal
Chronic, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300021

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart	Cardiomyopathy	Minimal
* Kidney	Nephropathy	Minimal
* Liver		
Note: TGL 1 - NCL		
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Mild
* Preputial Gland	Inflammation	Suppurative, Moderate

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300023

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Minimal
* Preputial Gland		Inflammation	Suppurative, Moderate
* Prostate		Inflammation	Suppurative, Minimal
* Thyroid Gland		Ectopic Thymus	

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 25

TRT#: 6

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300025

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
* Liver	Hepatocyte	Degeneration	Marked
		Inflammation	Chronic, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Mast Cell, Mild
* Preputial Gland		Inflammation	Suppurative, Minimal
* Thyroid Gland		Ectopic Thymus	

Experiment Number: 20609 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 (+)-Usnic Acid
 CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
 Time Report Requested: 12:50:16
 First Dose M/F: 08/07/08 / 08/07/08
 Lab: NCTR

ANIMAL ID: 27

TRT#: 6

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300027

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone Marrow |
| * Bone, Femur | * Brain, Brain Stem | * Brain, Cerebellum | * Brain, Cerebrum |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung |
| * Lymph Node, Mandibular | * Nose | * Parathyroid Gland | * Pituitary Gland |
| * Preputial Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| * Skin | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Testes | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

MISSING

- * Mammary Gland

OBSERVATIONS

- | | | | |
|--------------------------|-------------------------------|-----------------------|------------------|
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | | Hydronephrosis | Minimal |
| | | Nephropathy | Mild |
| | [Hydronephrosis TGLs = 1-7] | | |
| * Liver | Hepatocyte | Degeneration | Moderate |
| | | Inflammation | Chronic, Minimal |
| * Lymph Node, Mesenteric | | Infiltration Cellular | Mast Cell, Mild |
| * Mammary GI | | | |
| Note: RC attempted | | | |
| * Pancreas | Acinus | Degeneration | Mild |

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 29

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300029

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 31	TRT#: 3 DOSE: Usnic 60 ppm	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 95 HISTO: 021650300031
OBSERVATIONS * Liver	Hepatocyte	Degeneration Inflammation	Minimal Chronic, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 33

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300033

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	* Lung	* Lymph Node, Mandibular	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Mammary Gland

OBSERVATIONS

* Kidney	Nephropathy	Mild
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Minimal
* Mammary GI		

Note: RC attempted

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 35

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300035

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart	Cardiomyopathy	Mild
* Kidney	Nephropathy	Minimal
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Minimal
* Preputial Gland	Inflammation	Chronic Active, Mild
* Thyroid Gland	Ectopic Thymus	

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 37

TRT#: 4

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300037

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Nephropathy

Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 39

TRT#: 4

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300039

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Nephropathy

Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 41	TRT#: 5 DOSE: Usnic 360 ppm	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 95 HISTO: 021650300041
OBSERVATIONS			
* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration Inflammation	Mild Chronic, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 43	TRT#: 5 DOSE: Usnic 360 ppm	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 95 HISTO: 021650300043
OBSERVATIONS			
* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration Inflammation	Moderate Chronic, Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 45

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300045

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 47

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300047

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 (+)-Usnic Acid
 CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
 Time Report Requested: 12:50:16
 First Dose M/F: 08/07/08 / 08/07/08
 Lab: NCTR

ANIMAL ID: 49

TRT#: 6

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300049

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone Marrow |
| * Bone, Femur | * Brain, Brain Stem | * Brain, Cerebellum | * Brain, Cerebrum |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Lymph Node, Mandibular | * Nose | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Testes | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | | |

MISSING

- * Mammary Gland

OBSERVATIONS

- | | | | |
|--------------------------|-------------------------------|-----------------------|-------------------|
| * Kidney | | Hydronephrosis | Minimal |
| | | Nephropathy | Minimal |
| | [Hydronephrosis TGLs = 1-7] | | |
| * Liver | Hepatocyte | Degeneration | Moderate |
| | | Inflammation | Chronic, Minimal |
| * Lymph Node, Mesenteric | | Infiltration Cellular | Mast Cell, Mild |
| * Mammary GI | | | |
| Note: RC attempted | | | |
| * Preputial Gland | | Inflammation | Suppurative, Mild |

Experiment Number: 20609 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 (+)-Usnic Acid
 CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
 Time Report Requested: 12:50:16
 First Dose M/F: 08/07/08 / 08/07/08
 Lab: NCTR

ANIMAL ID: 51

TRT#: 6

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300051

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Liver	Hepatocyte	Degeneration	Marked
		Inflammation	Chronic, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
		Infiltration Cellular	Mast Cell, Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 53

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300053

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 55

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300055

OBSERVATIONS

* Liver

Inflammation

Chronic, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 57	TRT#: 4	SEX: Male	DAY ON TEST: 95
	DOSE: Usnic 120 ppm	DISP: Terminal Sacrifice	HISTO: 021650300057

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Angiectasis	Mild
	Hepatocyte	Degeneration	Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 59	TRT#: 4	SEX: Male	DAY ON TEST: 95
	DOSE: Usnic 120 ppm	DISP: Terminal Sacrifice	HISTO: 021650300059
OBSERVATIONS			
* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration	Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 61

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300061

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Epididymis

Note: TGL 1 - NCL

* Heart

Cardiomyopathy

Minimal

* Kidney

Nephropathy

Minimal

* Lymph Node, Mesenteric

Infiltration Cellular

Mast Cell, Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 63

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300063

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart	Cardiomyopathy	Mild
* Kidney	Nephropathy	Minimal
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Mild
	Infiltration Cellular	Mast Cell, Mild
* Thyroid Gland	Ectopic Thymus	

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 65	TRT#: 5	SEX: Male	DAY ON TEST: 95
	DOSE: Usnic 360 ppm	DISP: Terminal Sacrifice	HISTO: 021650300065

OBSERVATIONS

* Kidney		Hydronephrosis Nephropathy	Mild Minimal
	[Hydronephrosis TGLs = 1-7]		
* Liver	Hepatocyte	Degeneration Inflammation	Moderate Chronic, Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 67	TRT#: 5 DOSE: Usnic 360 ppm	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 95 HISTO: 021650300067
OBSERVATIONS			
* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration Inflammation	Mild Chronic, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 69	TRT#: 3	SEX: Male	DAY ON TEST: 95
	DOSE: Usnic 60 ppm	DISP: Terminal Sacrifice	HISTO: 021650300069
OBSERVATIONS			
* Liver	Hepatocyte	Degeneration	Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 71

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300071

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 73

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300073

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 75

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300075

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 77

TRT#: 4

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300077

OBSERVATIONS

- * Kidney
- * Liver

Nephropathy
Inflammation

Minimal
Chronic, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 79	TRT#: 4 DOSE: Usnic 120 ppm	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 95 HISTO: 021650300079
OBSERVATIONS			
* Kidney Note: TGL 1 - NCL		Nephropathy	Minimal
* Liver Note: TGL 2 - NCL	Hepatocyte	Degeneration	Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 81

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300081

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 83

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300083

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 85

TRT#: 6

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300085

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* 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

* Mammary Gland

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration	Marked
		Inflammation	Chronic, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Mast Cell, Moderate
* Mammary GI			
Note: RC attempted			
* Preputial Gland	Duct	Dilatation	Marked
		Inflammation	Suppurative, Moderate

[Dilatation TGLs = 1-13]

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 (+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 87

TRT#: 6

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300087

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone Marrow |
| * Bone, Femur | * Brain, Brain Stem | * Brain, Cerebellum | * Brain, Cerebrum |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung |
| * Lymph Node, 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 | | |

OBSERVATIONS

- | | | | |
|--------------------------|-------------------------------|-----------------------|-----------------------|
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Hydronephrosis | Mild |
| | | Nephropathy | Minimal |
| | [Hydronephrosis TGLs = 1-7] | | |
| * Liver | Hepatocyte | Degeneration | Moderate |
| | | Inflammation | Chronic, Minimal |
| * Lymph Node, Mandibular | | Infiltration Cellular | Plasma Cell, Moderate |
| * Preputial Gland | | Inflammation | Suppurative, Moderate |

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 89

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300089

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Heart	Cardiomyopathy	Minimal
* Kidney	Nephropathy	Mild
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 91

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300091

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart	Cardiomyopathy	Minimal
* Kidney	Nephropathy	Minimal
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Mild
* Thyroid Gland	Ectopic Thymus	

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 93	TRT#: 5	SEX: Male	DAY ON TEST: 95
	DOSE: Usnic 360 ppm	DISP: Terminal Sacrifice	HISTO: 021650300093
OBSERVATIONS			
* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration	Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 95	TRT#: 5	SEX: Male	DAY ON TEST: 95
	DOSE: Usnic 360 ppm	DISP: Terminal Sacrifice	HISTO: 021650300095

OBSERVATIONS

* Kidney		Hydronephrosis	Minimal
		Nephropathy	Minimal
	[Hydronephrosis TGLs = 1-7]		
* Liver	Hepatocyte	Degeneration	Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 97

TRT#: 4

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300097

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

OBSERVATIONS

* Kidney

Nephropathy

Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 99	TRT#: 4	SEX: Male	DAY ON TEST: 95
	DOSE: Usnic 120 ppm	DISP: Terminal Sacrifice	HISTO: 021650300099

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration	Mild
		Inflammation	Chronic, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 101

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300101

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 103

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300103

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 105

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300105

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 107	TRT#: 3 DOSE: Usnic 60 ppm	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 95 HISTO: 021650300107
OBSERVATIONS * Liver	Hepatocyte	Degeneration Inflammation	Minimal Chronic, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 109

TRT#: 6

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300109

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration	Marked
		Inflammation	Chronic, Mild
* Pituitary Gland	Pars Intermed	Cyst	Mild
* Preputial Gland	Duct	Dilatation	Moderate
		Inflammation	Chronic Active, Mild

[Dilatation TGLs = 1-13]
[Inflammation TGLs = 1-13]

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 (+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 111

TRT#: 6

SEX: Male

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300111

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone Marrow |
| * Bone, Femur | * Brain, Brain Stem | * Brain, Cerebellum | * Brain, Cerebrum |
| * Epididymis | * Esophagus | * Eye | * Harderian Gland |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Lymph Node, Mandibular | * 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

- * Parathyroid Gland

OBSERVATIONS

- | | | | |
|--------------------------|------------|--------------|-----------------------|
| * Kidney | | Nephropathy | Minimal |
| * Liver | Hepatocyte | Degeneration | Moderate |
| | | Inflammation | Chronic, Mild |
| * Lymph Node, Mesenteric | | Hyperplasia | Lymphoid, Mild |
| * Parathyroid Gland | | | |
| Note: RC attempted | | | |
| * Preputial Gland | Duct | Dilatation | Marked |
| | | Inflammation | Suppurative, Moderate |
- [Dilatation TGLs = 1-13]
- [Inflammation TGLs = 1-13]

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 113	TRT#: 5	SEX: Male	DAY ON TEST: 95
	DOSE: Usnic 360 ppm	DISP: Terminal Sacrifice	HISTO: 021650300113
OBSERVATIONS			
* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration	Mild
		Eosinophilic Focus	
		Inflammation	Chronic, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 115	TRT#: 5	SEX: Male	DAY ON TEST: 95
	DOSE: Usnic 360 ppm	DISP: Terminal Sacrifice	HISTO: 021650300115

OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration	Mild
		Inflammation	Chronic, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 117

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300117

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Mast Cell, Mild
* Pituitary Gland	Pars Distalis	Cyst	Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 119

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300119

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Heart	Cardiomyopathy	Minimal
* Kidney	Nephropathy	Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 2

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300002

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 4

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300004

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 6

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 360 ppm

DISP: Terminal Sacrifice

HISTO: 021650300006

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 8

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 360 ppm

DISP: Terminal Sacrifice

HISTO: 021650300008

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 10

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300010

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 12

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300012

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 14

TRT#: 12

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300014

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver	* Lung
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Clitoral Gland	Infiltration Cellular	Lymphocyte, Minimal
* Heart	Cardiomyopathy	Minimal
* Kidney	Mineralization	Marked
	Nephropathy	Minimal
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Mild
* Thyroid Gland	Ectopic Thymus	

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 (+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 16

TRT#: 12

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300016

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone Marrow |
| * Bone, Femur | * Brain, Brain Stem | * Brain, Cerebellum | * Brain, Cerebrum |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Lung | * Lymph Node, Mandibular |
| * Mammary Gland | * Nose | * Ovary | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Salivary Glands | * Skin |
| * Spleen | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | * Uterus |

OBSERVATIONS

- | | | | |
|--------------------------|-----------|-----------------------|----------------------|
| * Clitoral Gland | | Inflammation | Chronic Active, Mild |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | | Mineralization | Moderate |
| | | Nephropathy | Minimal |
| * Liver | Bile Duct | Hyperplasia | Minimal |
| * Lymph Node, Mesenteric | | Infiltration Cellular | Mast Cell, Moderate |

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 18

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300018

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 20

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300020

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 22

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300022

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Esophagus	* Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Liver	* Lung	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Clitoral Gland	Infiltration Cellular	Lymphocyte, Mild
* Harderian Gland	Infiltration Cellular	Lymphocyte, Minimal
* Heart	Cardiomyopathy	Minimal
* Kidney	Mineralization	Moderate
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 24

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300024

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Esophagus	* Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Liver	* Lung	* Lymph Node, Mandibular
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Clitoral Gland	Inflammation	Suppurative, Mild
* Harderian Gland	Infiltration Cellular	Lymphocyte, Mild
* Heart	Cardiomyopathy	Mild
* Kidney	Mineralization	Mild
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Mild
	Infiltration Cellular	Mast Cell, Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 26

TRT#: 12

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300026

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Heart	Cardiomyopathy	Minimal
* Kidney	Mineralization	Mild
	Nephropathy	Mild
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Moderate
* Thyroid Gland	Ultimobranchial Cyst	Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 28

TRT#: 12

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300028

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Heart	Cardiomyopathy	Mild
* Kidney	Mineralization	Marked
	Nephropathy	Minimal
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Moderate

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 30

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300030

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 32

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300032

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 34

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300034

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver	* Lung
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Clitoral Gland	Infiltration Cellular	Lymphocyte, Mild
* Heart	Cardiomyopathy	Minimal
* Kidney	Mineralization	Moderate
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Minimal
	Infiltration Cellular	Mast Cell, Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 36

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300036

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Heart	Cardiomyopathy	Minimal
* Kidney	Mineralization	Marked
	Nephropathy	Minimal
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 38

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300038

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 40

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300040

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 42

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 360 ppm

DISP: Terminal Sacrifice

HISTO: 021650300042

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 44

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 360 ppm

DISP: Terminal Sacrifice

HISTO: 021650300044

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 46

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300046

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 48

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300048

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 50

TRT#: 12

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300050

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Clitoral Gland	Infiltration Cellular	Lymphocyte, Mild
* Kidney	Mineralization	Marked
	Nephropathy	Minimal
* Lung	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Marked

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 52

TRT#: 12

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300052

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	* Lung	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Kidney		Mineralization	Marked
		Nephropathy	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Mast Cell, Moderate
* Thyroid Gland		Ectopic Thymus	
* Uterus	Lumen	Dilatation	Marked
[Dilatation TGLs = 1-14]			

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 54

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300054

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 56

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300056

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 58

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300058

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 60

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300060

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 62

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300062

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver	* Lung
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Clitoral Gland	Inflammation	Chronic Active, Mild
* Heart	Cardiomyopathy	Minimal
* Kidney	Mineralization	Moderate
	Nephropathy	Minimal
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Mild
	Infiltration Cellular	Mast Cell, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 64

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300064

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	* Lung	* Lymph Node, Mandibular	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

OBSERVATIONS

* Kidney		Mineralization	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Mast Cell, Mild
* Uterus	Lumen	Dilatation	Moderate
[Dilatation TGLs = 1-14]			

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 66

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 360 ppm

DISP: Terminal Sacrifice

HISTO: 021650300066

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 68

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 360 ppm

DISP: Terminal Sacrifice

HISTO: 021650300068

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 70

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300070

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: JNot required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 72

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300072

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 74

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300074

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 76

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300076

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 78

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300078

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 80

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300080

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 82

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300082

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 84

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300084

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 (+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 86

TRT#: 12

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300086

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone Marrow |
| * Bone, Femur | * Brain, Brain Stem | * Brain, Cerebellum | * Brain, Cerebrum |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver | * Lung |
| * Lymph Node, Mandibular | * Mammary Gland | * Nose | * Ovary |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| * Skin | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |
| * Uterus | | | |

OBSERVATIONS

- | | | | |
|--------------------------|----------------------------|-------------------------------|-----------------------------|
| * Clitoral Gland | Duct | Dilatation
Inflammation | Marked
Suppurative, Mild |
| | [Dilatation TGLs = 1-13] | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization
Nephropathy | Moderate
Minimal |
| * Lymph Node, Mesenteric | | Infiltration Cellular | Mast Cell, Moderate |

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 88

TRT#: 12

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300088

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Heart	Cardiomyopathy	Mild
* Kidney	Cyst	Marked
	Mineralization	Marked
	Nephropathy	Mild
Note: TGL 1 - NCL		
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 90

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300090

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Clitoral Gland	* Esophagus	* Eye	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

OBSERVATIONS

* Harderian Gland	Infiltration Cellular	Lymphocyte, Minimal
* Kidney	Mineralization	Marked
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Mild

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 92

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300092

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Clitoral Gland		Inflammation	Chronic Active, Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Cyst	Moderate
		Mineralization	Moderate
[Cyst TGLs = 2-7A]			
* Uterus	Lumen	Dilatation	Marked
[Dilatation TGLs = 1-14]			

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 94

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 360 ppm

DISP: Terminal Sacrifice

HISTO: 021650300094

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 96

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 360 ppm

DISP: Terminal Sacrifice

HISTO: 021650300096

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 98

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300098

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 100

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 120 ppm

DISP: Terminal Sacrifice

HISTO: 021650300100

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 102

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300102

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 104

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 30 ppm

DISP: Terminal Sacrifice

HISTO: 021650300104

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 106

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300106

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 108

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 60 ppm

DISP: Terminal Sacrifice

HISTO: 021650300108

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 (+)-Usnic Acid
 CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
 Time Report Requested: 12:50:16
 First Dose M/F: 08/07/08 / 08/07/08
 Lab: NCTR

ANIMAL ID: 110

TRT#: 12

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300110

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone Marrow |
| * Bone, Femur | * Brain, Brain Stem | * Brain, Cerebellum | * Brain, Cerebrum |
| * Esophagus | * Eye | * Harderian Gland | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver | * Lung |
| * Lymph Node, Mandibular | * Mammary Gland | * Nose | * Ovary |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| * Skin | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |
| * Uterus | | | |

OBSERVATIONS

- | | | | |
|--------------------------|----------------------------|--------------------------------------|-------------------------------------|
| * Clitoral Gland | Duct | Dilatation
Inflammation | Marked
Chronic Active, Mild |
| | [Dilatation TGLs = 1-13] | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization
Nephropathy | Mild
Minimal |
| * Lymph Node, Mesenteric | | Hyperplasia
Infiltration Cellular | Lymphoid, Mild
Mast Cell, Marked |

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 112

TRT#: 12

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 720 ppm

DISP: Terminal Sacrifice

HISTO: 021650300112

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Clitoral Gland	Infiltration Cellular	Lymphocyte, Minimal
* Kidney	Mineralization	Marked
	Nephropathy	Minimal
* Liver	Angiectasis	Minimal
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Moderate
* Thyroid Gland	Cyst	Minimal
	Ectopic Thymus	

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 114

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 360 ppm

DISP: Terminal Sacrifice

HISTO: 021650300114

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 116

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: Usnic 360 ppm

DISP: Terminal Sacrifice

HISTO: 021650300116

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 118

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300118

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lymph Node, Mandibular	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Clitoral Gland	Infiltration Cellular	Lymphocyte, Mild
* Kidney	Mineralization	Moderate
* Lung	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric	Infiltration Cellular	Mast Cell, Minimal

Experiment Number: 20609 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
(+)-Usnic Acid
CAS Number: 7562-61-0

Date Report Requested: 12/03/2020
Time Report Requested: 12:50:16
First Dose M/F: 08/07/08 / 08/07/08
Lab: NCTR

ANIMAL ID: 120

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 ppm

DISP: Terminal Sacrifice

HISTO: 021650300120

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* Brain, Cerebrum
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Cyst	Marked
		Mineralization	Moderate
	[Cyst TGLs = 1-7A]		
* Lymph Node, Mesenteric		Infiltration Cellular	Mast Cell, Mild
* Thyroid Gland		Ectopic Thymus	
* Uterus	Lumen	Dilatation	Mild

*** END OF REPORT ***