

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

NTP Study Number: C20702
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: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 1

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300001

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 3

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300003

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 5

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300005

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

OBSERVATIONS

* Liver	Hepatocyte	Degeneration	Mild
* Preputial Gland		Infiltration Cellular	Lymphocyte, Minimal

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 7

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300007

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 |
| * 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 | Minimal |
| * Liver | Hepatocyte | Degeneration | Mild |
| | | Inflammation | Chronic Active, Minimal |
| | | Tension Lipidosis | Mild |
| | [Tension Lipidosis TGLs = 1-7A] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphoid, Mild |
| * Lymph Node, Mesenteric | | Hyperplasia | Lymphoid, Mild |

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 9	TRT#: 3	SEX: Male	DAY ON TEST: 95
	DOSE: USNEA 60 PPM	DISP: Terminal Sacrifice	HISTO: 021660300009
OBSERVATIONS			
* Liver	Hepatocyte	Degeneration Inflammation	Mild Chronic Active, Minimal

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 11

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300011

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 13

TRT#: 6

SEX: Male

DAY ON TEST: 35

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300013

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Blood Vessel | * 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 | * Kidney | * Lung | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Nose | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|-------------------|-------------|---------------------------|---------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Marked |
| * Bone Marrow | | Hypocellularity | Marked |
| * Epididymis | | Exfoliated Germ Cell | Moderate |
| | | Hypospermia | Marked |
| * Liver | Hepatocyte | Degeneration | Moderate |
| * Mammary Gland | | Atrophy | Moderate |
| * Preputial Gland | | Inflammation | Suppurative, Marked |
| * Prostate | | Atrophy | Marked |
| * Seminal Vesicle | | Atrophy | Marked |
| | | | |
| | | | |
| | | | |
| * Testes | Seminif Tub | Degeneration | Marked |
| | | | |
| | | | |
| * Thymus | | Atrophy | Marked |
| | | | |
| | | | |

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 15

TRT#: 6

SEX: Male

DAY ON TEST: 41

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300015

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Blood Vessel | * 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 | * Lymph Node, Mesenteric |
| * Nose | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | * Urinary Bladder |

OBSERVATIONS

- | | | | |
|-------------------|-------------------------|---------------------------|-----------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Marked |
| * Bone Marrow | | Hypocellularity | Marked |
| * Epididymis | | Exfoliated Germ Cell | Marked |
| | | Hypospermia | Marked |
| * Kidney | | Nephropathy | Minimal |
| * Liver | Hepatocyte | Degeneration | Moderate |
| * Mammary Gland | | Atrophy | Mild |
| * Preputial Gland | | Inflammation | Suppurative, Moderate |
| * Prostate | | Atrophy | Marked |
| * Seminal Vesicle | | Atrophy | Marked |
| | [Atrophy TGLs = 2-14] | | |
| * Testes | Seminif Tub | Degeneration | Marked |
| * Thymus | | Atrophy | Marked |
| | [Atrophy TGLs = 1-2] | | |

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 17	TRT#: 4	SEX: Male	DAY ON TEST: 95
	DOSE: USNEA 120 PPM	DISP: Terminal Sacrifice	HISTO: 021660300017
OBSERVATIONS			
* Liver		Cyst	Mild
	Hepatocyte	Degeneration	Minimal
[Cyst TGLs = 1-7A]			

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 19	TRT#: 4	SEX: Male	DAY ON TEST: 95
	DOSE: USNEA 120 PPM	DISP: Terminal Sacrifice	HISTO: 021660300019
OBSERVATIONS			
* Liver	Hepatocyte	Degeneration Inflammation	Mild Chronic Active, Minimal

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300021

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	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Liver		Inflammation	Chronic Active, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Preputial Gland		Inflammation	Chronic Active, Moderate
Tissue NOS	Mediastinum	Hemorrhage	Marked
[Hemorrhage TGLs = 1-16]			

Animal Note: TGL 1 - Noted grossly as Cavity, mediastinum was Tissue NOS, mediastinum

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300023

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * 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 | * 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

- | | | | |
|-------------------|------------|---------------------------|----------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Minimal |
| * Heart | | Cardiomyopathy | Mild |
| * Liver | Hepatocyte | Degeneration | Minimal |
| * Preputial Gland | | Inflammation | Suppurative, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 25

TRT#: 6

SEX: Male

DAY ON TEST: 38

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300025

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Blood Vessel | * 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 | * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Nose |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Preputial Gland |
| * Salivary Glands | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|-------------------|-------------------------|---------------------------|---------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Marked |
| * Bone Marrow | | Hypocellularity | Marked |
| * Epididymis | | Exfoliated Germ Cell | Moderate |
| | | Hypospermia | Marked |
| * Kidney | | Nephropathy | Minimal |
| * Liver | Hepatocyte | Degeneration | Moderate |
| * Lung | | Infiltration Cellular | Histiocyte, Minimal |
| * Mammary Gland | | Atrophy | Moderate |
| * Prostate | | Atrophy | Marked |
| * Seminal Vesicle | | Atrophy | Marked |
| | | | |
| | [Atrophy TGLs = 2-14] | | |
| * Testes | Seminif Tub | Degeneration | Marked |
| * Thymus | | | |

Note: TGL 1 - NCL

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 27

TRT#: 6

SEX: Male

DAY ON TEST: 38

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300027

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Blood Vessel	* 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	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Marked
* Bone Marrow		Hypocellularity	Moderate
* Epididymis		Exfoliated Germ Cell	Moderate
		Hypospermia	Marked
* Kidney		Hydronephrosis	Mild
	[Hydronephrosis TGLs = 3-6]		
* Liver	Hepatocyte	Degeneration	Marked
* Mammary Gland		Atrophy	Mild
* Preputial Gland		Inflammation	Suppurative, Moderate
* Prostate		Atrophy	Marked
* Seminal Vesicle		Atrophy	Marked
	[Atrophy TGLs = 1-14]		
* Testes	Seminif Tub	Degeneration	Marked
* Thymus		Atrophy	Marked
	[Atrophy TGLs = 2-2]		

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 29

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300029

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 31

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300031

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 33

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300033

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* 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

* Adrenal Cortex	Vacuolization Cytoplasmic	Mild
* Heart	Cardiomyopathy	Minimal
* Kidney	Nephropathy	Minimal
* Liver	Inflammation	Chronic Active, Minimal
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Mild
* Preputial Gland	Inflammation	Chronic Active, Mild

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 35

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300035

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* 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	* 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

* Adrenal Cortex	Vacuolization Cytoplasmic	Minimal
* Heart	Cardiomyopathy	Mild
* Liver	Inflammation	Chronic Active, Minimal
* Lym Node Mand		

Note: TGL 1 - NCL

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 37

TRT#: 4

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300037

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 39

TRT#: 4

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300039

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 41

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300041

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* 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	* 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

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Minimal
* Liver	Hepatocyte	Degeneration	Minimal
* Preputial Gland		Inflammation	Suppurative, Minimal

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 43

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300043

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	* 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		Casts Protein	Minimal
Note: TGL 2 - NCL			
* Liver	Hepatocyte	Degeneration	Minimal
* Preputial Gland	Duct	Ectasia	Mild
		Inflammation	Suppurative, Mild

[Ectasia TGLs = 1-12]

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 45

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300045

OBSERVATIONS

* Liver

Inflammation
Necrosis

Chronic Active, Mild
Minimal

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 47

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300047

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 49

TRT#: 6

SEX: Male

DAY ON TEST: 39

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300049

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Blood Vessel | * 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 | * Kidney | * Lung | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Nose | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|-----------------------------|-------------|---------------------------|-------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Marked |
| * Bone Marrow | | Hypocellularity | Moderate |
| * Epididymis | | Exfoliated Germ Cell | Moderate |
| | | Hypospermia | Marked |
| * Liver | Hepatocyte | Degeneration | Marked |
| * Lym Node Mand | | | |
| Note: TGL 2 - NCL | | | |
| * Lym Node Mesen | | | |
| Note: TGL 3 - NCL | | | |
| Lymph Node | Lumbar | Hyperplasia | Lymphoid, Mild |
| [Hyperplasia TGLs = 1-17] | | | |
| * Mammary Gland | | Atrophy | Moderate |
| * Preputial Gland | | Inflammation | Suppurative, Mild |
| * Prostate | | Atrophy | Marked |
| * Seminal Vesicle | | Atrophy | Marked |
| [Atrophy TGLs = 4-14] | | | |
| * Testes | Seminif Tub | Degeneration | Marked |
| * Thymus | | Atrophy | Marked |
| [Atrophy TGLs = 5-2] | | | |

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 51

TRT#: 6

SEX: Male

DAY ON TEST: 40

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300051

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Blood Vessel | * 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 | * Lymph Node, Mesenteric | * Nose |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| * Skin | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|-------------------|-------------|---------------------------|-----------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Marked |
| * Bone Marrow | | Hypocellularity | Marked |
| * Epididymis | | Exfoliated Germ Cell | Mild |
| | | Hypospermia | Marked |
| * Heart | Myocardium | Vacuolization Cytoplasmic | Mild |
| * Kidney | | Nephropathy | Minimal |
| * Liver | Hepatocyte | Degeneration | Marked |
| * Mammary Gland | | Atrophy | Mild |
| * Preputial Gland | | Inflammation | Suppurative, Moderate |
| * Prostate | | Atrophy | Marked |
| * Seminal Vesicle | | Atrophy | Marked |
| | | [Atrophy TGLs = 1-14] | |
| * Testes | Seminif Tub | Degeneration | Marked |
| * Thymus | | Atrophy | Marked |
| | | [Atrophy TGLs = 2-2] | |

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 53

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300053

OBSERVATIONS

* Liver

Deformity

[Deformity TGLs = 1-7A]

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 55

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300055

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 57

TRT#: 4

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300057

OBSERVATIONS

* Liver

Inflammation

Chronic Active, Minimal

Note: TGL 1 - NCL

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 59

TRT#: 4

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300059

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 61

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300061

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* 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
* 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

* Adrenal Cortex	Vacuolization Cytoplasmic	Mild
* Kidney	Mineralization	Minimal
* Lung	Hemorrhage	Mild

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 63

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300063

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
* Kidney	* 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	

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 65

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300065

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	* 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		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration	Mild
		Inflammation	Chronic Active, Minimal
* Preputial Gland		Inflammation	Suppurative, Mild

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 67

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300067

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* 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	* Kidney
* 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

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Liver	Hepatocyte	Degeneration	Mild

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 69

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300069

OBSERVATIONS

* Liver

Inflammation

Chronic Active, Minimal

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 71

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300071

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 73

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300073

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 75

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300075

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 77	TRT#: 4	SEX: Male	DAY ON TEST: 95
	DOSE: USNEA 120 PPM	DISP: Terminal Sacrifice	HISTO: 021660300077
OBSERVATIONS			
* Liver	Hepatocyte	Degeneration	Minimal

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 79	TRT#: 4	SEX: Male	DAY ON TEST: 95
	DOSE: USNEA 120 PPM	DISP: Terminal Sacrifice	HISTO: 021660300079
OBSERVATIONS			
* Liver	Hepatocyte	Degeneration Inflammation	Minimal Chronic Active, Minimal

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 81

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300081

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 83

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300083

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 85

TRT#: 6

SEX: Male

DAY ON TEST: 32

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300085

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|--------------------------|
| * Adrenal Medulla | * Blood Vessel | * 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 | * Islets, Pancreatic | * Lymph Node, Mesenteric |
| * Mammary Gland | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | |

AUTO PRECLUDES DIAG.

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

OBSERVATIONS

- | | | | |
|--------------------------|-------------------------------|---------------------------|-----------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Marked |
| * Bone Marrow | | Congestion | Marked |
| | | Hypocellularity | Marked |
| * Epididymis | | Exfoliated Germ Cell | Marked |
| | | Hypospermia | Marked |
| * Kidney | | Hydronephrosis | Mild |
| | [Hydronephrosis TGLs = 3-6] | | |
| * Liver | Hepatocyte | Degeneration | Marked |
| * Lung | | Congestion | Moderate |
| | [Congestion TGLs = 6-8] | | |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphoid, Minimal |
| * Nose | | Malformation | |
| | [Malformation TGLs = 7-15] | | |
| * Preputial Gland | | Inflammation | Suppurative, Moderate |
| * Prostate | | Atrophy | Marked |
| * Seminal Vesicle | | Atrophy | Marked |
| | [Atrophy TGLs = 2-14] | | |
| * Testes | Seminif Tub | Degeneration | Marked |
| * Thymus | | Atrophy | Marked |
| | [Atrophy TGLs = 5-2] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 85

TRT#: 6

SEX: Male

DAY ON TEST: 32

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300085

ORGAN AND ACCOUNTABLE SITE STATUS

* Urinary Bladder

Lumen

Dilatation

Marked

[Dilatation TGLs = 1-6]

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: TGL 4 - NST (Cavity, thoracic)

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 87

TRT#: 6

SEX: Male

DAY ON TEST: 39

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300087

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Blood Vessel | * 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 | * Lymph Node, Mesenteric |
| * Nose | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Preputial Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| * Urinary Bladder | | | |

OBSERVATIONS

- | | | | |
|-------------------|-------------|---------------------------|----------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Marked |
| * Bone Marrow | | Hypocellularity | Moderate |
| * Epididymis | | Exfoliated Germ Cell | Moderate |
| | | Hypospermia | Marked |
| * Kidney | | Nephropathy | Minimal |
| * Liver | Hepatocyte | Degeneration | Marked |
| * Mammary Gland | | Atrophy | Mild |
| * Prostate | | Atrophy | Marked |
| * Seminal Vesicle | | Atrophy | Marked |
| * Testes | Seminif Tub | Degeneration | Marked |
| * Thymus | | Atrophy | Mild |
| | | Cyst | Mild |

[Atrophy TGLs = 1-2]

[Cyst TGLs = 1-2]

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 89

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300089

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
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thymus	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Heart	Cardiomyopathy	Minimal
* Kidney	Hyaline Droplet	Moderate
* Preputial Gland	Inflammation	Chronic Active, Mild
* Thyroid Gland	Ectopic Thymus	

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 91

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300091

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	* Lymph Node, Mesenteric	* Mammary Gland	* 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	

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Hydronephrosis	Mild
	[Hydronephrosis TGLs = 1-6]		
* Liver		Inflammation	Chronic Active, Minimal
* Pancreas		Vacuolization Cytoplasmic	Mild

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 93

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300093

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	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* 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

* Harderian Gland		Infiltration Cellular	Lymphocyte, Minimal
* Heart		Cardiomyopathy	Minimal
* Liver	Hepatocyte	Degeneration	Minimal
		Inflammation	Chronic Active, Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 95

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300095

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 | * 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 | | Nephropathy | Minimal |
| * Liver | Hepatocyte | Degeneration | Moderate |
| * Preputial Gland | Duct | Ectasia | Moderate |

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 97	TRT#: 4	SEX: Male	DAY ON TEST: 95
	DOSE: USNEA 120 PPM	DISP: Terminal Sacrifice	HISTO: 021660300097
OBSERVATIONS			
* Liver	Hepatocyte	Degeneration Inflammation	Minimal Chronic Active, Minimal

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 99	TRT#: 4	SEX: Male	DAY ON TEST: 95
	DOSE: USNEA 120 PPM	DISP: Terminal Sacrifice	HISTO: 021660300099
OBSERVATIONS			
* Liver	Hepatocyte	Degeneration	Minimal

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 101

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300101

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 103

TRT#: 2

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300103

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 105

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300105

OBSERVATIONS

* Liver

Inflammation

Chronic Active, Minimal

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 107

TRT#: 3

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300107

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Liver

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 109

TRT#: 6

SEX: Male

DAY ON TEST: 36

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300109

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Blood Vessel	* 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	* Kidney	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Marked
* Bone Marrow		Hypocellularity	Moderate
* Epididymis		Exfoliated Germ Cell	Moderate
		Hypospermia	Marked
* Liver	Hepatocyte	Degeneration	Marked
* Mammary Gland		Atrophy	Mild
* Pancreas		Infiltration Cellular	Lymphocyte, Minimal
* Preputial Gland		Inflammation	Suppurative, Marked
* Prostate		Atrophy	Marked
* Seminal Vesicle		Atrophy	Marked
	[Atrophy TGLs = 1-14]		
* Testes	Seminif Tub	Degeneration	Marked
* Thymus		Atrophy	Marked
	[Atrophy TGLs = 2-2]		
* Thyroid Gland		Ectopic Thymus	

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 111

TRT#: 6

SEX: Male

DAY ON TEST: 35

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300111

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla | * Blood Vessel | * 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, Mesenteric | * Nose |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| * Skin | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | |

OBSERVATIONS

- | | | | |
|--------------------------|-------------|---------------------------|-------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Marked |
| * Bone Marrow | | Hypocellularity | Marked |
| * Epididymis | | Exfoliated Germ Cell | Moderate |
| | | Hypospermia | Marked |
| * Kidney | | Nephropathy | Minimal |
| Note: TGL 2 - NCL | | | |
| * Liver | Hepatocyte | Degeneration | Marked |
| * Lymph Node, Mandibular | | Hyperplasia | Lymphoid, Mild |
| * Mammary Gland | | Atrophy | Mild |
| * Preputial Gland | | Inflammation | Suppurative, Mild |
| * Prostate | | Atrophy | Marked |
| * Seminal Vesicle | | Atrophy | Marked |
| [Atrophy TGLs = 1-14] | | | |
| * Testes | Seminif Tub | Degeneration | Marked |
| * Thymus | | Atrophy | Marked |
| [Atrophy TGLs = 3-2] | | | |

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 113

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300113

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	* 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

* Kidney		Casts Protein	Minimal
* Liver	Hepatocyte	Degeneration	Moderate
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 115

TRT#: 5

SEX: Male

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300115

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		Nephropathy	Minimal
* Liver	Hepatocyte	Degeneration	Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Preputial Gland		Inflammation	Suppurative, Moderate

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 117

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300117

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	* 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

* Kidney	Nephropathy	Minimal
----------	-------------	---------

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 119

TRT#: 1

SEX: Male

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300119

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone Marrow
* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum	* 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
* 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

* Brain, Cerebrum	Gliosis	Mild
	Mineralization	Mild
* Heart	Cardiomyopathy	Minimal
* Kidney	Nephropathy	Minimal
* Liver	Inflammation	Chronic Active, Minimal
* Preputial Gland	Inflammation	Suppurative, Mild

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 2

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300002

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 4

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300004

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 6

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300006

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	* 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	Uterus

OBSERVATIONS

* Kidney

Mineralization

Marked

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 8

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300008

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	Marked
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Minimal
Uterus	Lumen	Dilatation	Moderate

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 10

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300010

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 12

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300012

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 14

TRT#: 12

SEX: Female

DAY ON TEST: 35

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300014

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel | * 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 | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Spleen |
| * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland | * Trachea |
| * Urinary Bladder | Uterus | | |

MISSING

- * Adrenal Medulla

OBSERVATIONS

- | | | | |
|--------------------|------------|---------------------------|------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Marked |
| * Adren Medulla | | | |
| Note: RC attempted | | | |
| * Bone Marrow | | Hypocellularity | Marked |
| * Clitoral Gland | | Infiltration Cellular | Lymphocyte, Mild |
| * Kidney | | Mineralization | Marked |
| * Liver | Hepatocyte | Degeneration | Moderate |
| * Thymus | | Atrophy | Marked |
- [Atrophy TGLs = 1-2]

PRIMARY CAUSE OF DEATH - UNCERTAIN

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 16

TRT#: 12

SEX: Female

DAY ON TEST: 35

DOSE: USNEA 720 PPM

DISP: Natural Death

HISTO: 021660300016

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone, Femur	* Brain, Brain Stem	* Brain, Cerebellum
* Brain, Cerebrum	* Clitoral Gland	* Esophagus	* Harderian Gland
* Heart	* Islets, Pancreatic	* Lung	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Trachea

AUTO PRECLUDES DIAG.

* Adrenal Cortex	* Adrenal Medulla	* Bone Marrow	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pituitary Gland	* Thyroid Gland
* Urinary Bladder	Uterus		

OBSERVATIONS

* Kidney		Mineralization	Marked
* Liver	Hepatocyte	Degeneration	Marked
* Thymus		Atrophy	Marked

[Atrophy TGLs = 1-2]

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 18

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300018

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 20

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300020

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 22

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300022

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	Inflammation	Chronic Active, Moderate
* Heart	Cardiomyopathy	Minimal
* Kidney	Mineralization	Marked
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Mild
* Thyroid Gland	Ectopic Thymus	

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 24

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300024

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
* 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		Infiltration Cellular	Lymphocyte, Minimal
* Kidney		Mineralization	Marked
Uterus	Lumen	Dilatation	Moderate

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 26

TRT#: 12

SEX: Female

DAY ON TEST: 28

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300026

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Blood Vessel	* 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	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Marked
* Bone Marrow		Hypocellularity	Marked
* Kidney		Mineralization	Moderate
* Liver	Hepatocyte	Degeneration	Moderate
* Thymus		Atrophy	Marked

[Atrophy TGLs = 1-2]

PRIMARY CAUSE OF DEATH - UNCERTAIN

Experiment Number: 20702 - 01
 Test Type: 90-DAY
 Route: DOSED FEED
 Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
 CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
 Time Report Requested: 12:51:12
 First Dose M/F: 02/14/09 / 02/14/09
 Lab: NCTR

ANIMAL ID: 28

TRT#: 12

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 720 PPM

DISP: Terminal Sacrifice

HISTO: 021660300028

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 |
| * 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 | Duct | Ectasia
Inflammation | Moderate
Suppurative, Marked |
| | | | [Ectasia TGLs = 1-12]
[Inflammation TGLs = 1-12] |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization | Minimal |
| * Liver | Hepatocyte | Degeneration | Minimal |
| Uterus | Lumen | Dilatation | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 30

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300030

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 32

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300032

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 34

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300034

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	Ectasia	Moderate
		Inflammation	Suppurative, Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Marked
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 36

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300036

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	Uterus		

OBSERVATIONS

* Clitoral Gland	Inflammation	Suppurative, Minimal
* Heart	Cardiomyopathy	Minimal
* Kidney	Mineralization	Marked

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 38

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300038

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 40

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300040

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 42

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300042

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	Uterus		

OBSERVATIONS

* Kidney	Mineralization	Marked
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Mild
* Thyroid Gland	Ectopic Thymus	

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 44

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300044

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	* 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	Uterus

OBSERVATIONS

* Kidney	Casts Protein	Minimal
	Mineralization	Marked

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 46

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300046

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 48

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300048

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 50

TRT#: 12

SEX: Female

DAY ON TEST: 35

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300050

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Blood Vessel	* 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	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Marked
* Bone Marrow		Hypocellularity	Marked
* Clitoral Gland		Inflammation	Suppurative, Mild
* Kidney		Mineralization	Marked
* Liver	Hepatocyte	Degeneration	Moderate
* Thymus		Atrophy	Marked

[Atrophy TGLs = 1-2]

PRIMARY CAUSE OF DEATH - UNCERTAIN

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 52

TRT#: 12

SEX: Female

DAY ON TEST: 28

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300052

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla | * Blood Vessel | * 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 | * Kidney | * Lung |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland | * Nose |
| * Ovary | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Skin | * Spleen | * Stomach, Forestomach |
| * Stomach, Glandular | * Trachea | * Urinary Bladder | Uterus |

OBSERVATIONS

- | | | | |
|------------------------|------------|---------------------------|----------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Moderate |
| * Bone Marrow | | Hypocellularity | Marked |
| * Liver | Hepatocyte | Degeneration | Moderate |
| * Thymus | | Atrophy | Moderate |
| [Atrophy TGLs = 1-2] | | | |
| * Thyroid Gland | | Ectopic Thymus | |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 54

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300054

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 56

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300056

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 58

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300058

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 60

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300060

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 62

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300062

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	* 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	Uterus

OBSERVATIONS

* Kidney

Mineralization

Marked

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 64

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300064

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	* 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	Uterus

OBSERVATIONS

* Kidney

Mineralization

Marked

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 66

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300066

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	* 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	Uterus

OBSERVATIONS

* Clitoral GI
Note: TGL 1 - NCL
* Kidney

Mineralization

Marked

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 68

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300068

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	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Kidney		Mineralization	Marked
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Pancreas	Acinus	Degeneration	Minimal
Uterus	Lumen	Dilatation	Moderate
[Dilatation TGLs = 1-13]			

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 70

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300070

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 72

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300072

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 74

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300074

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 76

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300076

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 78

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300078

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 80

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300080

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 82

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300082

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 84

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300084

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 86

TRT#: 12

SEX: Female

DAY ON TEST: 35

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300086

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Blood Vessel	* 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	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Uterus		

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Bone Marrow		Hypocellularity	Marked
* Clitoral Gland		Inflammation	Suppurative, Moderate
* Kidney		Infarct	Minimal
		Mineralization	Moderate
* Liver	Hepatocyte	Degeneration	Marked
Lymph Node	Lumbar	Hyperplasia	Lymphoid, Mild
	[Hyperplasia TGLs = 3-17]		
* Pancreas		Vacuolization Cytoplasmic	Mild
	[Vacuolization Cytoplasmic TGLs = 1-2]		
* Thymus		Atrophy	Marked
	[Atrophy TGLs = 2-2]		

PRIMARY CAUSE OF DEATH - UNCERTAIN

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 88

TRT#: 12

SEX: Female

DAY ON TEST: 33

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300088

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Blood Vessel	* 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	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Uterus

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Marked
* Bone Marrow		Hypocellularity	Marked
* Kidney		Mineralization	Moderate
* Liver	Hepatocyte	Degeneration	Marked
* Thymus		Atrophy	Marked

[Atrophy TGLs = 1-2]

PRIMARY CAUSE OF DEATH - UNCERTAIN

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 90

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300090

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
* 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
* Kidney	Mineralization	Marked
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Mild

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 92

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300092

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	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Liver	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
Uterus			

OBSERVATIONS

* Clitoral Gland	Inflammation	Suppurative, Mild
* Harderian Gland	Infiltration Cellular	Lymphocyte, Minimal
* Intestine Small, Ileum [Hyperplasia TGLs = 1-9]	Hyperplasia	Lymphoid, Mild
* Kidney	Mineralization	Marked

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 94

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300094

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	Uterus	

OBSERVATIONS

* Kidney	Casts Protein	Mild
	Mineralization	Moderate
* Lymph Node, Mesenteric	Hyperplasia	Lymphoid, Mild

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 96

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300096

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, Jejunum
* Islets, Pancreatic	* Liver	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Clitoral Gland		Inflammation	Suppurative, Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Small, Ileum		Hyperplasia	Lymphoid, Mild
* Kidney		Casts Protein	Mild
		Mineralization	Marked
* Pituitary Gland	Pars Distalis	Cyst	Mild
Uterus	Lumen	Dilatation	Moderate

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 98

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300098

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 100

TRT#: 10

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 120 PPM

DISP: Terminal Sacrifice

HISTO: 021660300100

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 102

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300102

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 104

TRT#: 8

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 30 PPM

DISP: Terminal Sacrifice

HISTO: 021660300104

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 106

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300106

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 108

TRT#: 9

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 60 PPM

DISP: Terminal Sacrifice

HISTO: 021660300108

*** NECROPSIED - NO MICROSCOPIC EXAMINATION

Animal Note: Not required by protocol.

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 110

TRT#: 12

SEX: Female

DAY ON TEST: 32

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300110

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Bone Marrow		Hypocellularity	Moderate
* Clitoral Gland		Infiltration Cellular	Lymphocyte, Minimal
* Harderian Gland		Infiltration Cellular	Lymphocyte, Minimal
* Kidney		Mineralization	Moderate
* Liver	Hepatocyte	Degeneration	Marked
* Thymus		Atrophy	Marked

[Atrophy TGLs = 1-2]

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 112

TRT#: 12

SEX: Female

DAY ON TEST: 35

DOSE: USNEA 720 PPM

DISP: Moribund Sacrifice

HISTO: 021660300112

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Blood Vessel	* 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	* 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	Uterus

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Marked
* Bone Marrow		Hypocellularity	Marked
* Clitoral Gland		Inflammation	Suppurative, Mild
* Kidney		Mineralization	Moderate
* Liver	Hepatocyte	Degeneration	Moderate
* Thymus			

Note: TGL 1 - NCL

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 114

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300114

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	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Kidney	Casts Protein	Minimal
	Mineralization	Marked
* Thyroid Gland	Cyst	Squamous, Minimal
	Ectopic Thymus	

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 116

TRT#: 11

SEX: Female

DAY ON TEST: 95

DOSE: USNEA 360 PPM

DISP: Terminal Sacrifice

HISTO: 021660300116

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	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	Uterus	

OBSERVATIONS

* Kidney		Casts Protein	Mild
		Mineralization	Marked
* Pituitary Gland	Pars Distalis	Cyst	Mild

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 118

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300118

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, Mesenteric	* 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, Mandibular	Hyperplasia	Lymphoid, Mild

Experiment Number: 20702 - 01
Test Type: 90-DAY
Route: DOSED FEED
Species/Strain: RATS/F 344/NCTR

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Usnea Lichen
CAS Number: USNEALICHEN

Date Report Requested: 12/03/2020
Time Report Requested: 12:51:12
First Dose M/F: 02/14/09 / 02/14/09
Lab: NCTR

ANIMAL ID: 120

TRT#: 7

SEX: Female

DAY ON TEST: 95

DOSE: Control 0 PPM

DISP: Terminal Sacrifice

HISTO: 021660300120

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
* Lung	* 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, Mild
* Kidney		Mineralization	Marked
* Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
Uterus	Lumen	Dilatation	Moderate

*** END OF REPORT ***