

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

C Number:	C91005
Lock Date:	12/15/1992
Cage Range:	All
Date Range:	All
Reasons For Removal:	All
Removal Date Range:	All
Treatment Groups:	All
Study Gender:	Both
PWG Approval Date	NONE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:32

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 1

TRT#: 1

SEX: Male

DAY ON TEST: 30

DOSE: 0 G/KG

DISP: Terminal Sacrifice

HISTO: 9206391

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Heart	Inflammation	Chronic Active, Minimal
* Kidney	Mineralization	Minimal
	Nephropathy	Minimal
* Preputial Gland	Inflammation	Chronic Active, Minimal
* Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 2	TRT#: 1 DOSE: 0 G/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 30 HISTO: 9206392
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Heart	Inflammation	Chronic Active, Minimal
* Kidney	Mineralization	Minimal
* Preputial Gland	Inflammation	Chronic Active, Minimal
* Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 3	TRT#: 1 DOSE: 0 G/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 30 HISTO: 9206393
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone	Periosteum	Inflammation	Chronic Active, Mild
* Epididymis		Inflammation	Chronic Active, Minimal
* Heart		Inflammation	Chronic Active, Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Lung		Inflammation	Chronic Active, Minimal
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Stomach, Glandular		Mineralization	Minimal
* Trachea		Inflammation	Chronic Active, Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 4	TRT#: 1 DOSE: 0 G/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 30 HISTO: 9206394
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Heart	Inflammation	Chronic Active, Minimal
* Kidney	Mineralization	Minimal
* Lung	Inflammation	Chronic Active, Minimal
* Pancreas	Atrophy	Minimal
* Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 5	TRT#: 1 DOSE: 0 G/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 30 HISTO: 9206395
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Parathyroid Gland

OBSERVATIONS

* Heart	Inflammation	Chronic Active, Minimal
* Kidney	Mineralization	Minimal
	Nephropathy	Minimal
* Preputial Gland	Inflammation	Chronic Active, Mild
* Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 6	TRT#: 1 DOSE: 0 G/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 30 HISTO: 9206396
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Heart	Inflammation	Chronic Active, Minimal
* Kidney	Nephropathy	Minimal
* Preputial Gland	Inflammation	Chronic Active, Minimal
* Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 7	TRT#: 1 DOSE: 0 G/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 30 HISTO: 9206397
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Heart	Inflammation	Chronic Active, Minimal
* Kidney	Mineralization	Minimal
	Nephropathy	Minimal
* Preputial Gland	Inflammation	Chronic Active, Minimal
* Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 8	TRT#: 1 DOSE: 0 G/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 30 HISTO: 9206398
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Kidney	Mineralization	Minimal
* Lung		
Note: eosinophilic crystals noted in a few alveoli		
* Prostate	Inflammation	Chronic Active, Mild
* Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 9	TRT#: 1 DOSE: 0 G/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 30 HISTO: 9206399
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Mammary Gland	* Nose
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OBSERVATIONS

* Heart	Inflammation	Chronic Active, Minimal
* Kidney	Mineralization	Minimal
	Nephropathy	Minimal
* Preputial Gland	Inflammation	Chronic Active, Mild
* Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 10	TRT#: 1 DOSE: 0 G/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 30 HISTO: 9206400
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Kidney	Mineralization	Minimal
* Preputial Gland	Inflammation	Chronic Active, Mild
* Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 11	TRT#: 3	SEX: Male	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206491

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone Marrow	Intestine Small, Duodenum	Intestine Small, Ileum	Liver
Nose	Stomach, Forestomach	Thymus	Urinary Bladder

OBSERVATIONS

Heart	Inflammation	Chronic Active, Minimal
Kidney	Mineralization	Minimal
	Nephropathy	Minimal
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Minimal
Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 12	TRT#: 3	SEX: Male	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206492

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Nose	Stomach, Forestomach
Thymus	Urinary Bladder		

OBSERVATIONS

Bone Marrow	Hyperplasia	Minimal
Heart	Inflammation	Chronic Active, Minimal
Kidney	Mineralization	Minimal
	Nephropathy	Minimal
Liver	Hematopoietic Cell Proliferation	Minimal
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild
Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 13	TRT#: 3	SEX: Male	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206493

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Nose	Stomach, Forestomach
Thymus	Urinary Bladder		

OBSERVATIONS

Bone Marrow	Hyperplasia	Minimal
Heart	Inflammation	Chronic Active, Minimal
Kidney	Mineralization	Minimal
	Nephropathy	Minimal
Liver	Inflammation	Chronic Active, Minimal
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild
Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 14	TRT#: 3	SEX: Male	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206494

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Nose
Stomach, Forestomach	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH

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* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 15	TRT#: 3	SEX: Male	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206495

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum
Urinary Bladder

Intestine Small, Ileum

Stomach, Forestomach

Thymus

OBSERVATIONS

Bone Marrow	Hyperplasia	Minimal
Heart	Inflammation	Chronic Active, Minimal
Kidney	Mineralization	Minimal
Liver	Hematopoietic Cell Proliferation	Minimal
Nose	Inflammation	Suppurative, Mild
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild
Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 16	TRT#: 3	SEX: Male	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206496

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Nose
Stomach, Forestomach	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow	Hyperplasia	Mild
Kidney	Mineralization	Minimal
Liver	Hematopoietic Cell Proliferation	Minimal
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild
Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 17	TRT#: 3	SEX: Male	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206497

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Nose	Stomach, Forestomach
Thymus	Urinary Bladder		

OBSERVATIONS

Bone Marrow	Hyperplasia	Minimal
Heart	Inflammation	Chronic Active, Minimal
Kidney	Mineralization	Minimal
	Nephropathy	Minimal
Liver	Hematopoietic Cell Proliferation	Minimal
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild
Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 18	TRT#: 3	SEX: Male	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206498

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone Marrow	Intestine Small, Duodenum	Intestine Small, Ileum	Nose
Stomach, Forestomach	Thymus	Urinary Bladder	

OBSERVATIONS

Heart	Inflammation	Chronic Active, Minimal
Kidney	Mineralization	Minimal
	Nephropathy	Minimal
Liver	Hematopoietic Cell Proliferation	Minimal
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild
Stomach, Glandular	Mineralization	Minimal

PRIMARY CAUSE OF DEATH

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 19	TRT#: 3	SEX: Male	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206499

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Stomach, Forestomach
Thymus	Urinary Bladder		

OBSERVATIONS

Bone Marrow		Hyperplasia	Minimal
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Nose		Inflammation	Suppurative, Minimal
Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
Stomach, Glandular		Mineralization	Minimal
Testes		Atrophy	Marked

Note: unilateral

[Atrophy TGLS = 1-1]

PRIMARY CAUSE OF DEATH

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 20	TRT#: 3	SEX: Male	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206500

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Liver
Stomach, Forestomach	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow		Hyperplasia	Minimal
Kidney		Mineralization	Minimal
Nose		Foreign Body	
		Inflammation	Suppurative, Minimal
Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 21	TRT#: 5	SEX: Male	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206471

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Stomach, Forestomach	Stomach, Glandular
Thymus	Urinary Bladder		

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Heart		Inflammation	Chronic Active, Minimal
Kidney		Mineralization	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Nose		Inflammation	Suppurative, Mild
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 22	TRT#: 5	SEX: Male	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206472

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Stomach, Forestomach	Thymus
Urinary Bladder			

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Heart		Inflammation	Chronic Active, Minimal
Kidney		Mineralization	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Nose		Inflammation	Suppurative, Moderate
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
[Hematopoietic Cell Proliferation TGLS = 1-1]			
Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 23	TRT#: 5	SEX: Male	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206473

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Stomach, Forestomach
Thymus	Urinary Bladder		

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Nose		Inflammation	Suppurative, Moderate
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
[Hematopoietic Cell Proliferation TGLS = 1-1]			
Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 24	TRT#: 5	SEX: Male	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206474

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Nose	Stomach, Forestomach
Thymus	Urinary Bladder		

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Heart		Inflammation	Chronic Active, Minimal
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
[Hematopoietic Cell Proliferation TGLS = 1-1]			
Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 25	TRT#: 5	SEX: Male	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206475

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Nose	Stomach, Forestomach
Stomach, Glandular	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Heart		Inflammation	Chronic Active, Minimal
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 26	TRT#: 5	SEX: Male	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206476

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Nose
Stomach, Forestomach	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
[Hematopoietic Cell Proliferation TGLS = 1-1]			
Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 27	TRT#: 5	SEX: Male	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206477

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Nose	Stomach, Forestomach
Thymus	Urinary Bladder		

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Heart		Inflammation	Chronic Active, Minimal
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
[Hematopoietic Cell Proliferation TGLS = 1-1]			
Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 28	TRT#: 5	SEX: Male	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206478

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Nose
Stomach, Forestomach	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal
[Hematopoietic Cell Proliferation TGLS = 1-1]			
Stomach, Glandular		Mineralization	Minimal
Tooth			

Note: inflammatory reaction by missing tooth

PRIMARY CAUSE OF DEATH -

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 29	TRT#: 5	SEX: Male	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206479

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Nose	Stomach, Forestomach
Stomach, Glandular	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Heart		Inflammation	Chronic Active, Minimal
Kidney		Mineralization	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 30	TRT#: 5	SEX: Male	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206480

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Nose
Stomach, Forestomach	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
[Hematopoietic Cell Proliferation TGLS = 1-1]			
Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 31	TRT#: 7	SEX: Male	DAY ON TEST: 30
	DOSE: 0.5 G/KG	DISP: Terminal Sacrifice	HISTO: 9206451

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal
[Hematopoietic Cell Proliferation TGLS = 1-12]			
* Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 32

TRT#: 7

SEX: Male

DAY ON TEST: 30

DOSE: 0.5 G/KG

DISP: Terminal Sacrifice

HISTO: 9206452

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Testes
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Parathyroid Gland

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal
	[Hematopoietic Cell Proliferation TGLS = 1-1]		
* Stomach, Forestomach		Inflammation	Chronic Active, Mild
Note: focal			
Note: intramucosal abscessation			
* Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 33

TRT#: 7

SEX: Male

DAY ON TEST: 12

DOSE: 0.5 G/KG

DISP: Natural Death

HISTO: 9206453

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Mammary Gland

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Inflammation	Chronic Active, Minimal
* Kidney		Casts Protein	Mild
		Mineralization	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Centrilobular	Necrosis	Moderate
* Nose		Inflammation	Suppurative, Moderate
* Preputial Gland		Inflammation	Chronic Active, Moderate
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Minimal
	[Hematopoietic Cell Proliferation TGLS = 1-1]		
* Stomach, Glandular		Inflammation	Chronic Active, Mild
* Thymus		Necrosis	Moderate
* Thyroid Gl			

Note: significant inflammation in muscle around larynx; possibly due to trauma by gavage bulb

PRIMARY CAUSE OF DEATH

- Liver Centrilobular Necrosis

Animal Note: COD - compound-related anemia, hypoxia, liver necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 35	TRT#: 7	SEX: Male	DAY ON TEST: 30
	DOSE: 0.5 G/KG	DISP: Terminal Sacrifice	HISTO: 9206455

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
	[Hematopoietic Cell Proliferation TGLS = 1-1]		
* Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:32

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 36

TRT#: 7

SEX: Male

DAY ON TEST: 30

DOSE: 0.5 G/KG

DISP: Terminal Sacrifice

HISTO: 9206456

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
* Nose		Inflammation	Suppurative, Moderate
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		[Hematopoietic Cell Proliferation TGLS = 1-1]	
* Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 37

TRT#: 7

SEX: Male

DAY ON TEST: 30

DOSE: 0.5 G/KG

DISP: Terminal Sacrifice

HISTO: 9206457

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
Note: blue-pigmented Kupffer cells noted			
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal
[Hematopoietic Cell Proliferation TGLS = 1-1]			
* Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 38	TRT#: 7	SEX: Male	DAY ON TEST: 30
	DOSE: 0.5 G/KG	DISP: Terminal Sacrifice	HISTO: 9206458

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
* Pancreas		Atrophy	Minimal
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:32

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 39

TRT#: 7

SEX: Male

DAY ON TEST: 7

DOSE: 0.5 G/KG

DISP: Natural Death

HISTO: 9206459

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Bone	* Brain	* Nose	* Pituitary Gland
* Skin			

MISSING

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Epididymis
* Esophagus	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone Marrow	Hyperplasia	Mild
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Note: possible overall decrease in cellularity, but increase in E:M ratio

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Animal Note: most tissues cannabalized; death attributed to compound-related hypoxia/anemia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 40	TRT#: 7	SEX: Male	DAY ON TEST: 30
	DOSE: 0.5 G/KG	DISP: Terminal Sacrifice	HISTO: 9206460

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
* Nose		Inflammation	Suppurative, Minimal
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Minimal
	[Hematopoietic Cell Proliferation TGLS = 1-1]		
* Stomach, Forestomach		Hyperplasia	Mild
Note: focal			
* Stomach, Glandular		Mineralization	Minimal

PRIMARY CAUSE OF DEATH

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 41	TRT#: 9	SEX: Male	DAY ON TEST: 6
	DOSE: 1.0 G/KG	DISP: Natural Death	HISTO: 9206431

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* 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
* Pancreas	* Pituitary Gland	* Preputial Gland	* Prostate
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Urinary Bladder		

MISSING

* Brain	* Esophagus	* Lymph Node, Mandibular	* Parathyroid Gland
* Salivary Glands	* Thyroid Gland	* Trachea	

OBSERVATIONS

* Bone Marrow Note: increased E:M cells, decreased cellularity		Hyperplasia	Mild
* Epididymis		Hypospermia	Minimal
* Kidney		Mineralization	Minimal
* Nose		Inflammation	Suppurative, Mild
* Spleen	Lymph Follic	Depletion Cellular	Mild
* Thymus		Necrosis	Mild

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: COD - uncertain, presumed to be related to drug-related hypoxia

Animal Note: autolysis precludes diagnosis of finer details

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 42

TRT#: 9

SEX: Male

DAY ON TEST: 10

DOSE: 1.0 G/KG

DISP: Natural Death

HISTO: 9206432

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Mammary Gland

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Inflammation	Chronic Active, Moderate
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Mild
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Spleen	Lymph Follic	Depletion Cellular	Moderate
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Hemorrhage	Minimal

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Animal Note: COD - uncertain, presumed due to drug-induced hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 43	TRT#: 9	SEX: Male	DAY ON TEST: 10
	DOSE: 1.0 G/KG	DISP: Moribund Sacrifice	HISTO: 9206433

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	Peripheral Nerve	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
Spinal Cord	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Thymus

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Epididymis		Hypospermia	Minimal
* Heart		Inflammation	Chronic Active, Moderate
Note: myocyte degeneration assoc'd with inflammation			
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

PRIMARY CAUSE OF DEATH - Heart Inflammation

Animal Note: COD - compound-related anemia, hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:32

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 44

TRT#: 9

SEX: Male

DAY ON TEST: 6

DOSE: 1.0 G/KG

DISP: Natural Death

HISTO: 9206434

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Minimal
Note: increased E:M cells, but possible decreased overall cellularity			
* Kidney		Mineralization	Minimal
* Spleen	Lymph Follic	Depletion Cellular	Moderate
* Thymus		Necrosis	Mild

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Animal Note: COD - uncertain, presumed due to drug-related hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 45

TRT#: 9

SEX: Male

DAY ON TEST: 5

DOSE: 1.0 G/KG

DISP: Natural Death

HISTO: 9206435

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	Eye	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Mammary Gland

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Epididymis		Hypospermia	Minimal
* Kidney		Mineralization	Minimal
* Nose		Inflammation	Suppurative, Mild
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Spleen	Lymph Follic	Depletion Cellular	Mild
		Hematopoietic Cell Proliferation	Minimal
* Stomach, Glandular		Inflammation	Chronic Active, Mild
		Mineralization	Minimal
* Thymus		Necrosis	Minimal

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Animal Note: COD - compound-related anemia, hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 46	TRT#: 9	SEX: Male	DAY ON TEST: 6
	DOSE: 1.0 G/KG	DISP: Natural Death	HISTO: 9206436

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Skin	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea			

MISSING

* Parathyroid Gland	* Seminal Vesicle	* Urinary Bladder
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OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Epididymis		Hypospermia	Minimal
* Int Sm Duoden			
Note: possible focal necrosis, as seen in other treated rats, but autolysis precludes a definitive Dx			
* Liver	Kupffer Cell	Pigmentation	Minimal
* Nose		Inflammation	Suppurative, Mild
* Spleen	Lymph Follic	Depletion Cellular	Mild
		Hematopoietic Cell Proliferation	Minimal
* Stomach, Forestomach		Inflammation	Marked
Note: ulcer			
* Thymus		Necrosis	Marked

PRIMARY CAUSE OF DEATH - Stomach, Forestomach Inflammation

Animal Note: COD - unclear, presumed related to compound-induced hypoxia

Animal Note: one testis, epididymis cannibalized

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:32

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 47

TRT#: 9

SEX: Male

DAY ON TEST: 5

DOSE: 1.0 G/KG

DISP: Natural Death

HISTO: 9206437

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Epididymis		Hypospermia	Minimal
* Heart		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Spleen	Lymph Follic	Depletion Cellular	Minimal
		Hematopoietic Cell Proliferation	Minimal
* Stomach, Glandular		Mineralization	Minimal
* Thymus		Necrosis	Mild

PRIMARY CAUSE OF DEATH

- Liver Centrilobular Necrosis

Animal Note: COD - compound-related anemia, hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 48

TRT#: 9

SEX: Male

DAY ON TEST: 7

DOSE: 1.0 G/KG

DISP: Natural Death

HISTO: 9206438

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
Peripheral Nerve	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	Spinal Cord
* Stomach, Forestomach	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Moderate
Mesentery		Inflammation	Suppurative, Moderate
Note: inflammation in and around pancreas and stomach serosa			
* Nose		Inflammation	Suppurative, Mild
* Spleen	Lymph Follic	Depletion Cellular	Mild
		Hematopoietic Cell Proliferation	Mild
* Stomach, Glandular		Mineralization	Minimal
		Necrosis	Marked
Note: full thickness ulcer (perforation), with massive necrosis, hemorrhage, inflammation			
* Thymus		Atrophy	Marked

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis
 CONTRIBUTORY CAUSE OF DEATH - Stomach;Glandular Necrosis

Animal Note: COD - compound-related anemia, hypoxia, and induced liver necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 49	TRT#: 9	SEX: Male	DAY ON TEST: 7
	DOSE: 1.0 G/KG	DISP: Natural Death	HISTO: 9206439

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Inflammation	Chronic Active, Minimal
		Mineralization	Mild
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Spleen	Lymph Follic	Depletion Cellular	Moderate
		Hematopoietic Cell Proliferation	Minimal
* Thymus		Hemorrhage	Moderate
		Necrosis	Marked

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis

Animal Note: COD - compound-related anemia, hypoxia, liver necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 50	TRT#: 9	SEX: Male	DAY ON TEST: 9
	DOSE: 1.0 G/KG	DISP: Natural Death	HISTO: 9206440

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Inflammation	Chronic Active, Moderate
Note: inflammation assoc'd with myocyte necrosis			
* Kidney		Mineralization	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
* Spleen	Lymph Follic	Depletion Cellular	Mild
		Hematopoietic Cell Proliferation	Mild
* Stomach, Forestomach		Inflammation	Marked
Note: ulceration present, with massive suppurative inflammation, transmural			
* Thymus		Necrosis	Mild
* Thyroid GI			
Note: marked chronic inflammation noted associated with skeletal muscle adjacent to laryngeal cartilage; possibly due to gavage trauma			

PRIMARY CAUSE OF DEATH - Heart Inflammation
CONTRIBUTORY CAUSE OF DEATH - Stomach;Forestomach Inflammation

Animal Note: COD - compound-related anemia, hypoxia, cardiac lesions

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 51

TRT#: 11
DOSE: 2.0 G/KG

SEX: Male
DISP: Natural Death

DAY ON TEST: 4
HISTO: 9206411

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Parathyroid Gland

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Epididymis		Hypospermia	Minimal
* Heart		Inflammation	Chronic Active, Mild
* Intestine Small, Duodenum	Serosa	Inflammation	Moderate
Note: Perforation noted grossly not on slide. Some mural inflammation noted. Inflammatory reaction is acute and fibrinous. [Inflammation TGLS = 1-4]			
* Kidney		Mineralization	Minimal
* Liver	Serosa	Inflammation	Mild
	Centrilobular	Necrosis	Moderate
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Spleen	Lymph Follic	Depletion Cellular	Mild
Note: lymphoid depletion, sparse emh cells also			
* Stomach, Glandular		Mineralization	Minimal
* Thymus		Necrosis	Mild

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis

CONTRIBUTORY CAUSE OF DEATH - Intestine Small;Duodenum Serosa Inflammation

Animal Note: cod - compound-related anemia and hypoxia, induced liver necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 52

TRT#: 11
DOSE: 2.0 G/KG

SEX: Male
DISP: Natural Death

DAY ON TEST: 4
HISTO: 9206412

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* 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	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
Note: increased E:M cells, but decreased overall cellularity			
* Epididymis		Hypospermia	Minimal
* Intestine Small, Duodenum	Serosa	Inflammation	Mild
		Necrosis	Moderate
Note: full thickness focal necrosis (perforation)			
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Preputial Gland		Inflammation	Chronic Active, Minimal
* Spleen	Lymph Follic	Depletion Cellular	Moderate
* Thymus		Necrosis	Marked

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis
CONTRIBUTORY CAUSE OF DEATH - Intestine Small;Duodenum Necrosis

Animal Note: COD - compound-induced anemia, hypoxia and induced hepatic necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 53	TRT#: 11	SEX: Male	DAY ON TEST: 4
	DOSE: 2.0 G/KG	DISP: Natural Death	HISTO: 9206413

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Liver	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Epididymis		Hypospermia	Minimal
* Intestine Small, Duodenum		Necrosis	Mild
Note: focal acute necrosis of epithelium extending to muscle wall			
* Kidney		Mineralization	Minimal
* Nose		Inflammation	Suppurative, Mild
* Spleen	Lymph Follic	Depletion Cellular	Mild
* Thymus		Necrosis	Mild

PRIMARY CAUSE OF DEATH - UNCERTAIN
CONTRIBUTORY CAUSE OF DEATH - Intestine Small;Duodenum Necrosis

Animal Note: COD - compound-related anemia, hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 54	TRT#: 11	SEX: Male	DAY ON TEST: 4
	DOSE: 2.0 G/KG	DISP: Natural Death	HISTO: 9206414

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Epididymis		Hypospermia	Minimal
* Kidney		Mineralization	Minimal
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen	Lymph Follic	Depletion Cellular	Mild
* Thymus		Hemorrhage	Moderate
		Necrosis	Minimal

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: COD - compound-related anemia, hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 55	TRT#: 11	SEX: Male	DAY ON TEST: 5
	DOSE: 2.0 G/KG	DISP: Natural Death	HISTO: 9206415

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Epididymis		Hypospermia	Minimal
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Spleen	Lymph Follic	Depletion Cellular	Moderate
* Thymus		Necrosis	Mild

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis

Animal Note: COD - Compound-related anemia, hypoxia, and induced hepatic necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:32

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 56

TRT#: 11

SEX: Male

DAY ON TEST: 4

DOSE: 2.0 G/KG

DISP: Natural Death

HISTO: 9206416

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

- | | | | |
|-------------------|---------------|----------------|----------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| * Epididymis | | Hypospermia | Minimal |
| * Kidney | | Mineralization | Minimal |
| * Liver | Centrilobular | Necrosis | Mild |
| * Preputial Gland | | Inflammation | Chronic Active, Mild |
| * Thymus | | Hemorrhage | Minimal |
| | | Necrosis | Mild |

PRIMARY CAUSE OF DEATH

- Liver Centrilobular Necrosis

Animal Note: COD - compound-related anemia, hypoxia, and induced hepatic degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 57	TRT#: 11	SEX: Male	DAY ON TEST: 5
	DOSE: 2.0 G/KG	DISP: Natural Death	HISTO: 9206417

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* 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	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

OBSERVATIONS

* Bone Marrow Note: decreased overall marrow elements		Hyperplasia	Mild
* Epididymis		Hypospermia	Minimal
* Heart		Inflammation	Chronic Active, Minimal
* Intestine Small, Duodenum Note: ulcer		Necrosis	Moderate
* Kidney		Mineralization	Minimal
* Spleen	Lymph Follic	Depletion Cellular	Moderate
* Thymus		Necrosis	Mild

PRIMARY CAUSE OF DEATH - UNCERTAIN
CONTRIBUTORY CAUSE OF DEATH - Intestine Small;Duodenum Necrosis

Animal Note: COD - compound-related anemia, hypoxia, induced hepatic degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 58

TRT#: 11

SEX: Male

DAY ON TEST: 6

DOSE: 2.0 G/KG

DISP: Natural Death

HISTO: 9206418

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Mammary Gland	* Thymus
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OBSERVATIONS

* Bone Marrow		Hyperplasia	Minimal
Note: decreased overall marrow elements			
* Epididymis		Hypospermia	Minimal
* Heart		Inflammation	Chronic Active, Minimal
* Intestine Small, Duodenum	Serosa	Inflammation	Mild
		Necrosis	Moderate
Note: perforation			
* Intestine Small, Ileum		Necrosis	Mild
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Nose		Inflammation	Suppurative, Mild
* Spleen	Lymph Follic	Depletion Cellular	Moderate
		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis

CONTRIBUTORY CAUSE OF DEATH - Intestine Small;Duodenum Necrosis

Animal Note: COD - compound-related anemia, hypoxia, and induced hepatic necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 59	TRT#: 11	SEX: Male	DAY ON TEST: 4
	DOSE: 2.0 G/KG	DISP: Natural Death	HISTO: 9206419

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* 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	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Esophagus

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Epididymis		Hypospermia	Minimal
Eye	Cornea	Degeneration	Mild
Note: denuded epith from cornea may have produced edema resulting in gross opacity [Degeneration TGLS = 1-12]			
* Intestine Small, Duodenum		Necrosis	Mild
Note: erosion/ulcer			
* Liver	Centrilobular	Necrosis	Moderate
* Preputial Gland		Inflammation	Chronic Active, Mild
* Spleen	Lymph Follic	Depletion Cellular	Mild
* Thymus		Necrosis	Mild

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis
CONTRIBUTORY CAUSE OF DEATH - Intestine Small;Duodenum Necrosis

Animal Note: COD - Compound-related anemia, hypoxia, induced hepatic necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:32

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 60

TRT#: 11

SEX: Male

DAY ON TEST: 5

DOSE: 2.0 G/KG

DISP: Natural Death

HISTO: 9206420

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

- * Mammary Gland

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Epididymis		Hypospermia	Minimal
* Heart		Inflammation	Chronic Active, Minimal
* Intestine Small, Duodenum	Serosa	Inflammation	Mild
		Necrosis	Moderate
Note: serosal involvement suggests full thickness perforation present			
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Spleen	Lymph Follic	Depletion Cellular	Mild
* Stomach, Glandular		Mineralization	Minimal
* Thymus		Hemorrhage	Minimal
		Necrosis	Mild

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis

CONTRIBUTORY CAUSE OF DEATH - Intestine Small;Duodenum Necrosis

Animal Note: COD - compound-related anemia, hypoxia, induced liver necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:32

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 61

TRT#: 2

SEX: Female

DAY ON TEST: 30

DOSE: 0 G/KG

DISP: Terminal Sacrifice

HISTO: 9206401

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex
* Bone Marrow
* Intestine Large, Cecum
* Intestine Small, Ileum
* Lung
* Nose
* Pituitary Gland
* Stomach, Forestomach
* Trachea

* Adrenal Medulla
* Brain
* Intestine Large, Colon
* Intestine Small, Jejunum
* Lymph Node, Mandibular
* Ovary
* Salivary Glands
* Stomach, Glandular
* Urinary Bladder

* Blood Vessel
* Esophagus
* Intestine Large, Rectum
* Islets, Pancreatic
* Lymph Node, Mesenteric
* Pancreas
* Skin
* Thymus
* Uterus

* Bone
* Heart
* Intestine Small, Duodenum
* Liver
* Mammary Gland
* Parathyroid Gland
* Spleen
* Thyroid Gland

OBSERVATIONS

* Clitoral Gland
* Kidney

Inflammation
Mineralization

Chronic Active, Mild
Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 62	TRT#: 2	SEX: Female	DAY ON TEST: 30
	DOSE: 0 G/KG	DISP: Terminal Sacrifice	HISTO: 9206402

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Clitoral Gland	Inflammation	Chronic Active, Minimal
* Kidney	Mineralization	Minimal
	Nephropathy	Minimal
* Nose	Inflammation	Suppurative, Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 63

TRT#: 2

SEX: Female

DAY ON TEST: 30

DOSE: 0 G/KG

DISP: Terminal Sacrifice

HISTO: 9206403

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Clitoral Gland	Inflammation	Chronic Active, Mild
* Kidney	Mineralization	Minimal
	Nephropathy	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 64

TRT#: 2

SEX: Female

DAY ON TEST: 30

DOSE: 0 G/KG

DISP: Terminal Sacrifice

HISTO: 9206404

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex
* Bone Marrow
* Heart
* Intestine Small, Duodenum
* Liver
* Mammary Gland
* Parathyroid Gland
* Spleen
* Thyroid Gland

* Adrenal Medulla
* Brain
* Intestine Large, Cecum
* Intestine Small, Ileum
* Lung
* Nose
* Pituitary Gland
* Stomach, Forestomach
* Trachea

* Blood Vessel
* Clitoral Gland
* Intestine Large, Colon
* Intestine Small, Jejunum
* Lymph Node, Mandibular
* Ovary
* Salivary Glands
* Stomach, Glandular
* Urinary Bladder

* Bone
* Esophagus
* Intestine Large, Rectum
* Islets, Pancreatic
* Lymph Node, Mesenteric
* Pancreas
* Skin
* Thymus
* Uterus

OBSERVATIONS

* Kidney
Mineralization Minimal
Nephropathy Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 65	TRT#: 2 DOSE: 0 G/KG	SEX: Female DISP: Terminal Sacrifice	DAY ON TEST: 30 HISTO: 9206405
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Clitoral Gland	Inflammation	Chronic Active, Mild
* Kidney	Mineralization	Minimal
	Nephropathy	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:32

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 66

TRT#: 2

SEX: Female

DAY ON TEST: 30

DOSE: 0 G/KG

DISP: Terminal Sacrifice

HISTO: 9206406

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Clitoral Gland	Inflammation	Chronic Active, Minimal
* Heart	Inflammation	Chronic Active, Minimal
* Kidney	Mineralization	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 67

TRT#: 2

SEX: Female

DAY ON TEST: 30

DOSE: 0 G/KG

DISP: Terminal Sacrifice

HISTO: 9206407

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Parathyroid Gland

OBSERVATIONS

* Clitoral Gland	Inflammation	Chronic Active, Mild
* Kidney	Cyst	Mild
	Mineralization	Minimal
	Nephropathy	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 68

TRT#: 2
DOSE: 0 G/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 30
HISTO: 9206408

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Kidney	Mineralization	Minimal
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PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 69	TRT#: 2	SEX: Female	DAY ON TEST: 30
	DOSE: 0 G/KG	DISP: Terminal Sacrifice	HISTO: 9206409

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Clitoral Gland	Inflammation	Chronic Active, Minimal
* Kidney	Mineralization	Minimal
	Nephropathy	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 70

TRT#: 2

SEX: Female

DAY ON TEST: 30

DOSE: 0 G/KG

DISP: Terminal Sacrifice

HISTO: 9206410

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Parathyroid Gland

OBSERVATIONS

* Clitoral Gland	Inflammation	Chronic Active, Minimal
* Kidney	Mineralization	Minimal
	Nephropathy	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:32
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 71	TRT#: 4	SEX: Female	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206501

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Liver	Nose
Stomach, Forestomach	Stomach, Glandular	Thymus	Urinary Bladder

OBSERVATIONS

Bone Marrow	Hyperplasia	Mild
Heart	Inflammation	Chronic Active, Minimal
Kidney	Mineralization	Minimal
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild

PRIMARY CAUSE OF DEATH -

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 72	TRT#: 4	SEX: Female	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206502

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Liver
Stomach, Forestomach	Stomach, Glandular	Thymus	Urinary Bladder

OBSERVATIONS

Bone Marrow	Hyperplasia	Minimal
Kidney	Mineralization	Minimal
Nose	Inflammation	Suppurative, Mild
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 73	TRT#: 4	SEX: Female	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206503

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Liver
Stomach, Forestomach	Stomach, Glandular	Thymus	Urinary Bladder

OBSERVATIONS

Bone Marrow	Hyperplasia	Mild
Kidney	Mineralization	Minimal
Nose	Inflammation	Suppurative, Mild
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 74	TRT#: 4	SEX: Female	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206504

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Stomach, Forestomach
Stomach, Glandular	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow	Hyperplasia	Minimal
Kidney	Mineralization	Minimal
	Nephropathy	Minimal
Liver	Hematopoietic Cell Proliferation	Minimal
Nose	Inflammation	Suppurative, Minimal
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild

PRIMARY CAUSE OF DEATH -

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 75	TRT#: 4	SEX: Female	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206505

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Liver	Stomach, Forestomach
Stomach, Glandular	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow	Hyperplasia	Mild
Heart	Inflammation	Chronic Active, Minimal
Kidney	Mineralization	Minimal
Nose	Inflammation	Suppurative, Minimal
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 76	TRT#: 4	SEX: Female	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206506

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Liver	Stomach, Forestomach
Stomach, Glandular	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow	Hyperplasia	Mild
Heart	Inflammation	Chronic Active, Minimal
Kidney	Mineralization	Minimal
	Nephropathy	Minimal
Nose	Inflammation	Suppurative, Minimal
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 77	TRT#: 4	SEX: Female	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206507

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Stomach, Forestomach
Stomach, Glandular	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow	Hyperplasia	Mild
Kidney	Mineralization	Minimal
Liver	Hematopoietic Cell Proliferation	Minimal
Nose	Inflammation	Suppurative, Minimal
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Minimal

PRIMARY CAUSE OF DEATH -

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 78	TRT#: 4	SEX: Female	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206508

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Liver
Nose	Stomach, Forestomach	Stomach, Glandular	Thymus
Urinary Bladder			

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 79	TRT#: 4	SEX: Female	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206509

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Liver
Stomach, Forestomach	Stomach, Glandular	Thymus	Urinary Bladder

OBSERVATIONS

Bone Marrow	Hyperplasia	Mild
Kidney	Mineralization	Minimal
Nose	Inflammation	Suppurative, Mild
Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Minimal

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 80	TRT#: 4	SEX: Female	DAY ON TEST: 30
	DOSE: 0.125 G/KG	DISP: Terminal Sacrifice	HISTO: 9206510

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Liver
Nose	Stomach, Forestomach	Stomach, Glandular	Thymus
Urinary Bladder			

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Mild
		Nephropathy	Minimal
Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 81	TRT#: 6	SEX: Female	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206481

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Stomach, Forestomach
Stomach, Glandular	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Nose		Inflammation	Suppurative, Minimal
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 82	TRT#: 6	SEX: Female	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206482

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Stomach, Forestomach
Stomach, Glandular	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
Nose		Inflammation	Suppurative, Mild
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 83	TRT#: 6	SEX: Female	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206483

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Stomach, Forestomach
Stomach, Glandular	Thymus	Urinary Bladder	

OBSERVATIONS

Bone Marrow	Hyperplasia	Minimal
Kidney	Mineralization	Minimal
Liver	Hematopoietic Cell Proliferation	Minimal
Nose	Inflammation	Suppurative, Minimal
Spleen	Hematopoietic Cell Proliferation	Mild
	Pigmentation	Mild

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 84	TRT#: 6	SEX: Female	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206484

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Nose
Stomach, Forestomach	Stomach, Glandular	Thymus	Urinary Bladder

OBSERVATIONS

Bone Marrow	Hyperplasia	Mild
Kidney	Mineralization	Minimal
	Nephropathy	Minimal
Liver	Hematopoietic Cell Proliferation	Minimal
Spleen	Hematopoietic Cell Proliferation	Mild
	Pigmentation	Mild

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 85	TRT#: 6	SEX: Female	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206485

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Stomach, Forestomach	Stomach, Glandular
Thymus	Urinary Bladder		

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Heart		Inflammation	Chronic Active, Minimal
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Nose		Inflammation	Suppurative, Mild
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 86	TRT#: 6	SEX: Female	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206486

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Nose
Stomach, Forestomach	Stomach, Glandular	Thymus	Urinary Bladder

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 87	TRT#: 6	SEX: Female	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206487

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Nose
Stomach, Forestomach	Stomach, Glandular	Thymus	Urinary Bladder

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 88	TRT#: 6	SEX: Female	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206488

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Nose
Ovary	Stomach, Forestomach	Stomach, Glandular	Thymus
Urinary Bladder			

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 89	TRT#: 6	SEX: Female	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206489

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart	Intestine Small, Duodenum	Intestine Small, Ileum	Nose
Stomach, Forestomach	Stomach, Glandular	Thymus	Urinary Bladder

OBSERVATIONS

Bone Marrow		Hyperplasia	Mild
Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Liver		Hematopoietic Cell Proliferation	Minimal
Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 90	TRT#: 6	SEX: Female	DAY ON TEST: 30
	DOSE: 0.25 G/KG	DISP: Terminal Sacrifice	HISTO: 9206490

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Intestine Small, Duodenum	Intestine Small, Ileum	Stomach, Forestomach	Stomach, Glandular
Thymus	Urinary Bladder		

OBSERVATIONS

Bone Marrow	Hyperplasia	Mild
Heart	Inflammation	Chronic Active, Minimal
Kidney	Mineralization	Minimal
	Nephropathy	Minimal
Liver	Hematopoietic Cell Proliferation	Minimal
Nose	Inflammation	Suppurative, Mild
Spleen	Hematopoietic Cell Proliferation	Mild
	Pigmentation	Mild

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 91

TRT#: 8

SEX: Female

DAY ON TEST: 11

DOSE: 0.5 G/KG

DISP: Moribund Sacrifice

HISTO: 9206461

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	Eye
* 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	Peripheral Nerve
* Pituitary Gland	* Salivary Glands	* Skin	Spinal Cord
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Inflammation	Chronic Active, Mild
* Kidney		Mineralization	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Centrilobular	Necrosis	Moderate
	Kupffer Cell	Pigmentation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Mild
	[Hematopoietic Cell Proliferation TGLS = 1-1]		
* Stomach, Forestomach		Hyperplasia	Moderate
Note: patchy or diffuse			
* Thymus		Necrosis	Mild

PRIMARY CAUSE OF DEATH

- Liver Centrilobular Necrosis

Animal Note: COD - compound-related anemia, hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 92

TRT#: 8

SEX: Female

DAY ON TEST: 13

DOSE: 0.5 G/KG

DISP: Natural Death

HISTO: 9206462

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Inflammation	Chronic Active, Mild
* Kidney		Mineralization	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Centrilobular	Necrosis	Moderate
	Kupffer Cell	Pigmentation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Minimal
* Thymus		Hemorrhage	Moderate
		Necrosis	Marked

PRIMARY CAUSE OF DEATH

- Liver Centrilobular Necrosis

Animal Note: COD - compound-related anemia, hypoxia, induced hepatic necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 93	TRT#: 8	SEX: Female	DAY ON TEST: 30
	DOSE: 0.5 G/KG	DISP: Terminal Sacrifice	HISTO: 9206463

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
	[Hematopoietic Cell Proliferation TGLS = 1-1]		
* Stomach, Forestomach		Necrosis	Minimal
Note: focal intramucosal abscess			

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 94	TRT#: 8	SEX: Female	DAY ON TEST: 12
	DOSE: 0.5 G/KG	DISP: Natural Death	HISTO: 9206464

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Heart		Inflammation	Chronic Active, Moderate
* Kidney		Mineralization	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Centrilobular	Necrosis	Moderate
	Kupffer Cell	Pigmentation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Mild
* Thymus		Hemorrhage	Moderate
		Necrosis	Marked

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis

Animal Note: COD - compound-related anemia, hypoxia, liver necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:33

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 95

TRT#: 8

SEX: Female

DAY ON TEST: 30

DOSE: 0.5 G/KG

DISP: Terminal Sacrifice

HISTO: 9206465

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Lymph Node, Mesenteric
- * Pancreas
- * Skin
- * Thyroid Gland

- * Adrenal Medulla
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Mammary Gland
- * Parathyroid Gland
- * Stomach, Forestomach
- * Trachea

- * Blood Vessel
- * Heart
- * Intestine Small, Duodenum
- * Lung
- * Nose
- * Pituitary Gland
- * Stomach, Glandular
- * Urinary Bladder

- * Bone
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mandibular
- * Ovary
- * Salivary Glands
- * Thymus
- * Uterus

OBSERVATIONS

- * Bone Marrow
- * Clitoral Gland
- * Kidney
- * Liver
- * Spleen

- Renal Tubule
- Capsule

- Hyperplasia
- Inflammation
- Mineralization
- Pigmentation
- Hematopoietic Cell Proliferation
- Fibrosis
- Hematopoietic Cell Proliferation
- Pigmentation

- Mild
- Chronic Active, Minimal
- Minimal
- Minimal
- Minimal
- Minimal
- Mild
- Minimal

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:33

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 96

TRT#: 8

SEX: Female

DAY ON TEST: 30

DOSE: 0.5 G/KG

DISP: Terminal Sacrifice

HISTO: 9206466

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Kidney		Mineralization	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
Note: tip of liver lobe is necrotic			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:33

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 97

TRT#: 8

SEX: Female

DAY ON TEST: 30

DOSE: 0.5 G/KG

DISP: Terminal Sacrifice

HISTO: 9206467

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Heart		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 98

TRT#: 8

SEX: Female

DAY ON TEST: 30

DOSE: 0.5 G/KG

DISP: Terminal Sacrifice

HISTO: 9206468

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Heart		Inflammation	Chronic Active, Mild
	Atrium	Thrombosis	Marked
Note: mild to moderate inflammation associated with myocyte degeneration; chronic left atrial thrombosis			
* Kidney		Mineralization	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
* Nose		Inflammation	Suppurative, Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 99	TRT#: 8	SEX: Female	DAY ON TEST: 30
	DOSE: 0.5 G/KG	DISP: Terminal Sacrifice	HISTO: 9206469

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Heart		Inflammation	Chronic Active, Mild
	Atrium	Thrombosis	Moderate
Note: left atrial thrombus			
* Kidney		Mineralization	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
* Spleen		Fibrosis	Minimal
	Capsule	Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal

[Hematopoietic Cell Proliferation TGLS = 1-1]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 100

TRT#: 8

SEX: Female

DAY ON TEST: 13

DOSE: 0.5 G/KG

DISP: Natural Death

HISTO: 9206470

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Clitoral Gland	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Brain	* Lymph Node, Mandibular	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Thyroid Gland		

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Heart		Inflammation	Chronic Active, Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Centrilobular	Necrosis	Moderate
	Kupffer Cell	Pigmentation	Minimal
* Nose		Inflammation	Suppurative, Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Thymus		Hemorrhage	Moderate
		Necrosis	Marked

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis

Animal Note: COD - compound-related anemia, hypoxia, induced hepatic necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:33

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 101

TRT#: 10

SEX: Female

DAY ON TEST: 5

DOSE: 1.0 G/KG

DISP: Natural Death

HISTO: 9206441

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Lung		Inflammation	Chronic Active, Mild
* Spleen	Lymph Follic	Depletion Cellular	Mild
		Hematopoietic Cell Proliferation	Minimal
* Stomach, Glandular	Serosa	Inflammation	Minimal
Note: minimal serosal inflammation, suggestive of perforated gut as seen in other test rats			
* Thymus		Hemorrhage	Mild
		Necrosis	Mild

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis

CONTRIBUTORY CAUSE OF DEATH - Stomach;Glandular Serosa Inflammation

Animal Note: COD - compound-induced anemia, hypoxia, and induced liver necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 102

TRT#: 10
DOSE: 1.0 G/KG

SEX: Female
DISP: Natural Death

DAY ON TEST: 5
HISTO: 9206442

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Lung		Inflammation	Chronic Active, Minimal
* Nose		Inflammation	Suppurative, Mild
* Spleen	Lymph Follic	Depletion Cellular	Mild
* Thymus		Hemorrhage	Minimal
		Necrosis	Marked

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis

Animal Note: COD - compound-related anemia, hypoxia, liver necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 103

TRT#: 10

SEX: Female

DAY ON TEST: 9

DOSE: 1.0 G/KG

DISP: Natural Death

HISTO: 9206443

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Minimal
Eye		Cataract	Minimal
[Cataract TGLS = 1-11]			
* Heart		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
Mesentery		Accessory Spleen	
[Accessory Spleen TGLS = 3-12]			
* Spleen		Hematopoietic Cell Proliferation	Moderate
[Hematopoietic Cell Proliferation TGLS = 2-1]			
* Thymus		Necrosis	Minimal

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Animal Note: COD - compound-related anemia, hypoxia; no anatomic site available for coding CO D using TDMS software

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 104 TRT#: 10 SEX: Female DAY ON TEST: 5
DOSE: 1.0 G/KG DISP: Natural Death HISTO: 9206444

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Intestine Small, Ileum	* Intestine Small, Jejunum
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OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Ovary			
Note: left ovary cannabalized			
* Spleen	Lymph Follic	Depletion Cellular	Minimal
* Thymus		Hemorrhage	Mild
		Necrosis	Marked

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis

Animal Note: COD - compound-related anemia, hypoxia, liver necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 105

TRT#: 10
DOSE: 1.0 G/KG

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 9
HISTO: 9206445

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

* Parathyroid Gland

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Heart		Inflammation	Chronic Active, Marked
	Atrium	Thrombosis	Mild
Note: significant myocyte degeneration and necrosis, diffuse distribution of lesions; left atrial thrombosis			
* Kidney		Mineralization	Minimal
	Renal Tubule	Pigmentation	Minimal
* Liver		Hematopoietic Cell Proliferation	Mild
	Kupffer Cell	Pigmentation	Minimal
Note: prior necrosis has resulted in inflammation and fibrosis			
* Nose		Inflammation	Suppurative, Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Minimal
* Thymus		Atrophy	Marked

PRIMARY CAUSE OF DEATH - Heart Inflammation

CONTRIBUTORY CAUSE OF DEATH - Heart Atrium Thrombosis

Animal Note: COD - compound-related anemia, hypoxia; cardiac changes are presumed linked to hypoxic state, since such changes should not be present in such a young rat.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 106	TRT#: 10	SEX: Female	DAY ON TEST: 5
	DOSE: 1.0 G/KG	DISP: Natural Death	HISTO: 9206446

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland	* Salivary Glands	* Thyroid Gland
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OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
* Nose		Foreign Body	
* Spleen	Lymph Follic	Depletion Cellular	Minimal
* Thymus		Necrosis	Minimal

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: COD - compound-related anemia, hypoxia; no specific anatomic lesion to explain mortality

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 107

TRT#: 10
DOSE: 1.0 G/KG

SEX: Female
DISP: Natural Death

DAY ON TEST: 5
HISTO: 9206447

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Bone	* Clitoral 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, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Blood Vessel	* Brain	* Esophagus	* Lymph Node, Mandibular
* Nose	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Thyroid Gland			

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
* Spleen	Lymph Follic	Depletion Cellular	Minimal
* Thymus		Necrosis	Minimal

PRIMARY CAUSE OF DEATH - UNCERTAIN

Animal Note: COD - compound-related anemia, hypoxia; fine details lost to autolysis

Animal Note: significant tissues lost to cannibalization

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 108

TRT#: 10

SEX: Female

DAY ON TEST: 6

DOSE: 1.0 G/KG

DISP: Moribund Sacrifice

HISTO: 9206448

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Moderate
* Heart		Inflammation	Chronic Active, Moderate
Note: significant myocyte degen and necrosis present, not always associated with inflammatory sites; left atrium is maximally involved, probably clinically affected			
* Kidney		Mineralization	Minimal
* Liver		Hepatodiaphragmatic Nodule	
[Hepatodiaphragmatic Nodule TGLS = 1-5]			
* Spleen	Lymph Follic	Depletion Cellular	Mild
* Stomach, Forestomach		Hyperplasia	Marked
Note: diffuse pattern			
* Thymus		Atrophy	Moderate
Note: depletion, more than frank acute necrosis			

PRIMARY CAUSE OF DEATH - Heart Inflammation

Animal Note: COD - compound-related anemia, hypoxia, cardiac lesions

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 109

TRT#: 10
DOSE: 1.0 G/KG

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 10
HISTO: 9206449

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	Peripheral Nerve	* Pituitary Gland
* Salivary Glands	* Skin	Spinal Cord	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Heart		Inflammation	Chronic Active, Moderate
Note: inflammation assoc'd with myocyte degeneration			
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Minimal
* Stomach, Forestomach		Hyperplasia	Moderate
Note: focal			
* Thymus		Necrosis	Mild

PRIMARY CAUSE OF DEATH - Heart Inflammation

Animal Note: COD - compound-related anemia, hypoxia, heart changes

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 110

TRT#: 10
DOSE: 1.0 G/KG

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 10
HISTO: 9206450

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mandibular	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	Peripheral Nerve	* Pituitary Gland
* Salivary Glands	* Skin	Spinal Cord	* Stomach, Glandular
* Thyroid Gland	* Urinary Bladder	* Uterus	

MISSING

* Parathyroid Gland

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Heart		Inflammation	Chronic Active, Moderate
	Atrium	Thrombosis	Mild
Note: left atrial thrombosis; significant myocyte necrosis assoc'd with inflammatory sites			
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
	Kupffer Cell	Pigmentation	Minimal
* Lung		Thrombosis	Focal, Moderate
* Nose		Inflammation	Suppurative, Moderate
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Mild
[Hematopoietic Cell Proliferation TGLS = 1-1]			
* Stomach, Forestomach		Hyperplasia	Mild
Note: focal			
* Thymus		Necrosis	Mild
* Trachea		Inflammation	Chronic Active, Minimal

PRIMARY CAUSE OF DEATH

- Heart Inflammation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:33

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 110

TRT#: 10

SEX: Female

DAY ON TEST: 10

DOSE: 1.0 G/KG

DISP: Moribund Sacrifice

HISTO: 9206450

ORGAN AND ACCOUNTABLE SITE STATUS

Animal Note: COD - compound-related anemia, hypoxia, cardiac degeneration

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 111

TRT#: 12
DOSE: 2.0 G/KG

SEX: Female
DISP: Natural Death

DAY ON TEST: 4
HISTO: 9206421

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Parathyroid Gland

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
Eye		Cataract	Minimal
[Cataract TGLS = 1-11]			
* Heart		Inflammation	Chronic Active, Minimal
* Intestine Small, Duodenum	Serosa	Inflammation	Mild
		Necrosis	Moderate
Note: acute necrosis of focal area, including muscularis; serosal inflammation suggests perforation has occurred			
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Centrilobular	Necrosis	Minimal
Note: marked centrilobular congestion			
* Spleen	Lymph Follic	Depletion Cellular	Mild
* Thymus		Hemorrhage	Minimal
		Necrosis	Mild

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis
CONTRIBUTORY CAUSE OF DEATH - Intestine Small;Duodenum Necrosis

Animal Note: COD - compound-related anemia, hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 112

TRT#: 12
DOSE: 2.0 G/KG

SEX: Female
DISP: Natural Death

DAY ON TEST: 5
HISTO: 9206422

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Spleen	Lymph Follic	Depletion Cellular	Moderate
* Stomach, Glandular	Serosa	Inflammation	Mild
		Necrosis	Marked
Note: perforation			
* Thymus		Hemorrhage	Mild
		Necrosis	Marked

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis
CONTRIBUTORY CAUSE OF DEATH - Stomach;Glandular Necrosis

Animal Note: COD - compound-related anemia, hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 113

TRT#: 12
DOSE: 2.0 G/KG

SEX: Female
DISP: Natural Death

DAY ON TEST: 5
HISTO: 9206423

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Heart		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Spleen	Lymph Follic	Depletion Cellular	Mild
* Stomach, Glandular		Necrosis	Mild
Note: acute ulceration			
* Thymus		Necrosis	Marked

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis
CONTRIBUTORY CAUSE OF DEATH - Stomach;Glandular Necrosis

Animal Note: COD - compound-related anemia, hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 114

TRT#: 12
DOSE: 2.0 G/KG

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 5
HISTO: 9206424

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mandibular
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	Peripheral Nerve	* Pituitary Gland
* Salivary Glands	* Skin	Spinal Cord	* Stomach, Forestomach
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Spleen	Lymph Follic	Depletion Cellular	Mild
* Stomach, Glandular	Serosa	Inflammation	Mild
		Necrosis	Marked
Note: perforation			
* Thymus		Necrosis	Marked

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis
 CONTRIBUTORY CAUSE OF DEATH - Stomach;Glandular Necrosis

Animal Note: COD - compound-related anemia, hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 115

TRT#: 12
DOSE: 2.0 G/KG

SEX: Female
DISP: Natural Death

DAY ON TEST: 3
HISTO: 9206425

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Intestine Small, Duodenum	Serosa	Inflammation	Mild
		Necrosis	Marked
Note: complete focal perforation			
* Kidney		Mineralization	Minimal
* Nose		Inflammation	Suppurative, Mild
* Thymus		Necrosis	Moderate

PRIMARY CAUSE OF DEATH - Intestine Small, Duodenum Necrosis

Animal Note: COD - compound-related anemia, hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01

Test Type: 18-33 DAYS

Route: GAVAGE

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Methylene blue trihydrate

CAS Number: 7220-79-3

Date Report Requested: 10/15/2014

Time Report Requested: 17:57:33

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 116

TRT#: 12

SEX: Female

DAY ON TEST: 4

DOSE: 2.0 G/KG

DISP: Natural Death

HISTO: 9206426

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	* Blood Vessel	* Bone
* Brain	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* 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
* Stomach, Forestomach	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
Note: increased E:M cell ratio, but possibly decreased overall cellularity in marrow			
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Intestine Small, Duodenum		Necrosis	Moderate
Note: focal necrosis with hemorrhage and inflammation in uppermost duodenum			
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
Note: possible peracute prox tubule necrosis, however lack of sloughing of cells to distal tubules suggests that "change" is artifact of autolysis.			
* Liver	Centrilobular	Necrosis	Mild
* Spleen	Lymph Follic	Depletion Cellular	Mild
* Stomach, Glandular	Serosa	Inflammation	Mild
		Necrosis	Marked
Note: transmural lesion (perforation) present			
* Thymus		Necrosis	Marked

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis

CONTRIBUTORY CAUSE OF DEATH - Stomach;Glandular Necrosis

Animal Note: COD - compound-related anemia with induced hepato necrosis by hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 117

TRT#: 12

SEX: Female

DAY ON TEST: 3

DOSE: 2.0 G/KG

DISP: Natural Death

HISTO: 9206427

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Adrenal Cortex		Hemorrhage	Minimal
* Bone Marrow		Hyperplasia	Mild
Note: increased E:M cells, but possibly decreased overall cellularity			
* Clitoral Gland		Inflammation	Chronic Active, Mild
* Intestine Small, Duodenum		Necrosis	Moderate
[Necrosis TGLS = 1-4]			
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Minimal
Note: random hepatic cell necrosis, not true centrilobular pattern as seen in many other found-dead rats on this study			
* Nose		Inflammation	Suppurative, Mild
* Spleen	Lymph Follic	Depletion Cellular	Mild
* Thymus		Necrosis	Mild

PRIMARY CAUSE OF DEATH -

CONTRIBUTORY CAUSE OF DEATH - Intestine Small;Duodenum Necrosis

Animal Note: COD - compound-related anemia, induced hepatic degeneration due to hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 118

TRT#: 12
DOSE: 2.0 G/KG

SEX: Female
DISP: Natural Death

DAY ON TEST: 3
HISTO: 9206428

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Adrenal Cortex		Hemorrhage	Mild
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Chronic Active, Minimal
* Intestine Small, Duodenum		Necrosis	Mild
Note: significant lesion-associated acute inflammation			
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Minimal
* Nose		Inflammation	Suppurative, Mild
* Spleen	Lymph Follic	Depletion Cellular	Minimal
* Urin Bladder			
Note: most of urothelium is lost due to autolysis			

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis
CONTRIBUTORY CAUSE OF DEATH - Intestine Small;Duodenum Necrosis

Animal Note: COD - compound-induced anemia, hypoxia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 119

TRT#: 12
DOSE: 2.0 G/KG

SEX: Female
DISP: Natural Death

DAY ON TEST: 4
HISTO: 9206429

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

* Bone Marrow Note: increased E:M cells, but possibly decreased overall cellularity		Hyperplasia	Mild
* Intestine Small, Duodenum Note: necrosis = transmural ulcer	Serosa	Inflammation Necrosis	Mild Marked
* Kidney		Mineralization	Minimal
* Liver Note: suppurative exudate	Centrilobular	Necrosis Inflammation	Mild Suppurative, Moderate
* Spleen	Lymph Follic	Depletion Cellular	Moderate
* Thymus		Hemorrhage Necrosis	Minimal Mild

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis
CONTRIBUTORY CAUSE OF DEATH - Intestine Small;Duodenum Necrosis

Animal Note: COD - compound-related anemia (hypoxia) and induced liver necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 91005-01
Test Type: 18-33 DAYS
Route: GAVAGE
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Methylene blue trihydrate
CAS Number: 7220-79-3

Date Report Requested: 10/15/2014
Time Report Requested: 17:57:33
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 120

TRT#: 12
DOSE: 2.0 G/KG

SEX: Female
DISP: Natural Death

DAY ON TEST: 5
HISTO: 9206430

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* 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
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Adrenal Medulla

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
Note: increased E:M cells, but decreased cellularity			
* Intestine Small, Duodenum	Serosa	Inflammation	Mild
		Necrosis	Moderate
* Kidney		Mineralization	Minimal
* Liver	Centrilobular	Necrosis	Moderate
* Spleen	Lymph Follic	Depletion Cellular	Moderate
* Stomach, Forestomach		Necrosis	Minimal
* Thymus		Hemorrhage	Minimal
		Necrosis	Marked

PRIMARY CAUSE OF DEATH - Liver Centrilobular Necrosis

CONTRIBUTORY CAUSE OF DEATH - Intestine Small;Duodenum Necrosis

Animal Note: COD - compound-related anemia, hypoxia, with induced hepatic necrosis

** END OF REPORT **

* PROTOCOL REQUIRED TISSUE