

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

**C Number:** C54897

**Cage Range:** All

**Date Range:** All

**Reasons For Removal:** All

**Removal Date Range:** All

**Treatment Groups:** All

**Study Gender:** Male

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_001

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Pituitary gland

Angiectasis

Prostate

Inflammation, Suppurative

Testis

Atrophy, Nos

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C54897

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: HC blue 2

CAS Number: 33229-34-4

Date Report Requested: 10/26/2014

Time Report Requested: 13:26:30

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_002

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 10000 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Cytoplasmic Vacuolization
Bone	Skull	Hyperostosis
Bone marrow		Atrophy, Fatty
Brain	Hypothalamus Nos	Displacement, Nos
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Vacuolization
		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lymph node	Mesenteric Lymph Node	Hyperplasia, Cystic
Mammary gland		Cystic Disease
		Fibroadenoma
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative
Testis		Periarteritis
Thyroid		C-Cell Carcinoma
		Follicular-Cell Carcinoma
Unspecified	Scrotum	Fibrosarcoma

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_003

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Hyperplasia, Adenomatous
Pancreas		Atrophy, Focal
Prostate		Inflammation, Suppurative
Testis		Atrophy, Nos
		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_004

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Accessory Structure

Bone

Skull

Hyperostosis

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Mammary gland

Cystic Disease

Prostate

Inflammation, Suppurative

Testis

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_005

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Degeneration, Cystic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative
Testis		Atrophy, Nos
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_006

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Bone	Skull	Hyperostosis
Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
		Leukemia, Mononuclear Cell
Skin	Eyelid Nos	Neurilemoma
Testis		Atrophy, Nos
		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_007

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Bone	Skull	Hyperostosis
Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Nos
		Neoplastic Nodule
Skin	Lower Leg	Hyperplasia, Epithelial
	Lower Leg	Ulcer, Chronic
Testis		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_008

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Fibrosis, Cholangio

Focal Cellular Change

Bile Duct

Hyperplasia, Nos

Mammary gland

Mammary Duct

Cyst, Hemorrhagic

Pancreas

Atrophy, Focal

Prostate

Inflammation, Suppurative

Testis

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C54897

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: HC blue 2

CAS Number: 33229-34-4

Date Report Requested: 10/26/2014

Time Report Requested: 13:26:30

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_009

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Brain	Hypothalamus Nos	Displacement, Nos
Eye		Cataract
		Phthisis Bulbi
		Retinopathy
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
		Pigmentation, Nos
Lung		Alveolar/Bronchiolar Adenoma
Lymph node		Hyperplasia, Nos
Nasal cavity	Mucosa	Inflammation, Focal
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative
Stomach		Edema, Nos
	Forestomach	Ulcer, Nos
Testis		Atrophy, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_010

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Bone	Skull	Hyperostosis
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Vacuolization
		Degeneration, Cystic
	Bile Duct	Hyperplasia, Nos
Prostate		Inflammation, Suppurative
Testis		Atrophy, Nos
		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_011

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Degeneration, Cystic
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_012

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Mammary gland

Cystic Disease

Pancreas

Cystic Ducts

Pituitary gland

Adenoma, Nos

Prostate

Inflammation, Suppurative

Skin

Squamous Cell Papilloma

Testis

Atrophy, Nos

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

**ANIMAL ID:** 1\_013

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Eye

Medulla

Hyperplasia, Focal  
Cataract

Heart  
Kidney  
Liver

Myocardium Nos

Retinopathy  
Fibrosis, Focal  
Nephrosis, Nos  
Cytoplasmic Vacuolization  
Fibrosis, Cholangio

Mammary gland  
Prostate  
Testis

Bile Duct

Hyperplasia, Nos  
Cystic Disease  
Inflammation, Suppurative  
Interstitial-Cell Tumor

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_014

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Bone	Skull	Hyperostosis
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Change, Basophilic
		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Preputial gland		Hyperplasia, Nos
		Inflammation, Chronic Suppurative

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

**ANIMAL ID:** 1\_015

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Degeneration, Cystic
		Fibrosis, Cholangio
		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Pancreas	Islets	Islet-Cell Adenoma
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative
Testis		Hyperplasia, Interstitial Cell
Unspecified	Sole Of Foot	Callus

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_016

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Bone	Skull	Hyperostosis
Heart	Myocardium Nos	Fibrosis, Focal
Liver		Cytoplasmic Vacuolization
		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Testis		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C54897

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: HC blue 2

CAS Number: 33229-34-4

Date Report Requested: 10/26/2014

Time Report Requested: 13:26:30

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_017

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 10000 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal
Bone	Skull	Hyperostosis
Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Vacuolization
		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Pancreas		Atrophy, Focal
Prostate		Inflammation, Suppurative
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
Thyroid		Cystic Follicles
	Follicle	Pigmentation, Nos

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_018

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Pheochromocytoma

Eye

Cataract

Retinopathy

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Pancreas

Atrophy, Focal

Prostate

Inflammation, Suppurative

Testis

Interstitial-Cell Tumor

Thyroid

Degeneration, Cystic

Follicle

Pigmentation, Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_019

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Heart

Intestine Small

Kidney

Liver

Lymph node

Thyroid

Unspecified

Myocardium Nos

Mesentery Nos

Bile Duct

Cervical Lymph Node Nos

Head

Focal Cellular Change

Fibrosis, Focal

Angiectasis

Nephrosis, Nos

Fibrosis, Cholangio

Hyperplasia, Nos

Hyperplasia, Nos

Hyperplasia, C Cell

Inflammation, Suppurative

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_020

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland	Cortex Nos	Cytoplasmic Vacuolization
	Medulla	Hyperplasia, Focal
Bone	Skull	Hyperostosis
Ear	Canal	Inflammation, Nos
Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Vacuolization
		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
		Neoplastic Nodule
Mammary gland		Cystic Disease
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		C-Cell Adenoma
		Hyperplasia, C Cell

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

**ANIMAL ID:** 1\_021

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney

Liver

Bile Duct

Pancreas

Pituitary gland

Prostate

Skin

Testis

Thyroid

Zymbal gland

Nephrosis, Nos

Cytoplasmic Vacuolization

Deformity, Nos

Fibrosis, Cholangio

Hyperplasia, Nos

Regeneration, Nodular

Atrophy, Focal

Adenoma, Nos

Inflammation, Suppurative

Keratoacanthoma

Interstitial-Cell Tumor

Degeneration, Cystic

Pigmentation, Nos

Hyperplasia, Focal

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_022

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Bone	Skull	Hyperostosis
Eye		Cataract
		Retinopathy
Intestine Small	Mesentery Nos	Periarteritis
Kidney		Nephrosis, Nos
Liver		Degeneration, Cystic
	Bile Duct	Hyperplasia, Nos
Prostate		Inflammation, Suppurative
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
		Periarteritis
Thyroid		C-Cell Carcinoma

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

---

**ANIMAL ID:** 1\_023

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Ear	Canal	Inflammation, Nos
Eye		Cataract
		Retinopathy
Kidney	Medulla	Cast, Nos
Mammary gland		Cystic Disease
Prostate		Inflammation, Suppurative
Skin	Head	Squamous Cell Carcinoma
Spleen		Hematopoiesis
Unspecified	Multiple Organs Nos	Leukocytosis, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

---

**ANIMAL ID:** 1\_024

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Eye

Kidney

Liver

Lung

Pancreas

Pituitary gland

Prostate

Bile Duct

Alveoli

Pheochromocytoma

Cataract

Retinopathy

Nephrosis, Nos

Cytoplasmic Vacuolization

Deformity, Nos

Hyperplasia, Nos

Histiocytosis

Atrophy, Focal

Adenoma, Nos

Inflammation, Suppurative

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

---

**ANIMAL ID:** 1\_025

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Bone

Heart

Kidney

Liver

Mammary gland

Pancreas

Pituitary gland

Prostate

Testis

Medulla

Skull

Myocardium Nos

Bile Duct

Angiectasis

Hyperostosis

Fibrosis, Focal

Nephrosis, Nos

Degeneration, Cystic

Hyperplasia, Nos

Cystic Disease

Atrophy, Focal

Hyperplasia, Focal

Inflammation, Suppurative

Atrophy, Nos

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_026

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Pheochromocytoma

Bone

Skull

Hyperostosis

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Bile Duct

Hyperplasia, Nos

Mammary gland

Cystic Disease

Pancreas

Hyperplasia, Focal

Prostate

Inflammation, Suppurative

Testis

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

**ANIMAL ID:** 1\_028

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Bone

Eye

Heart

Kidney

Liver

Mammary gland

Prostate

Testis

Skull

Myocardium Nos

Bile Duct

Pheochromocytoma

Hyperostosis

Retinopathy

Fibrosis, Focal

Nephrosis, Nos

Cytoplasmic Change, Basophilic

Hyperplasia, Nos

Cystic Disease

Inflammation, Suppurative

Atrophy, Nos

Interstitial-Cell Tumor

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

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**ANIMAL ID:** 1\_029

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Eye

Cataract

Heart

Myocardium Nos

Retinopathy

Kidney

Fibrosis, Focal

Liver

Bile Duct

Nephrosis, Nos

Lung

Hyperplasia, Nos

Mammary gland

Congestion, Nos

Prostate

Cystic Disease

Testis

Inflammation, Suppurative

Unspecified

Pelvic Organs

Interstitial-Cell Tumor

Zymbal gland

Rhabdomyosarcoma

Adenosquamous Carcinoma

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

---

**ANIMAL ID:** 1\_030

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Bone  
Ear  
Intestine Small  
Kidney  
Liver

Medulla  
Skull  
Tympanic Cavity  
Mesentery Nos  
  
Bile Duct

Hyperplasia, Focal  
Hyperostosis  
Hyperostosis  
Necrosis, Fat  
Nephrosis, Nos  
Fibrosis, Cholangio  
Hyperplasia, Nos  
Inflammation, Focal  
Cystic Disease  
Inflammation, Suppurative  
Interstitial-Cell Tumor  
Cystic Follicles

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

**ANIMAL ID:** 1\_031

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Bone

Eye

Intestine Small

Kidney

Liver

Skull

Mesentery Nos

Bile Duct

Seminal vesicle

Testis

Angiectasis

Hyperostosis

Cataract

Retinopathy

Necrosis, Fat

Nephrosis, Nos

Angiectasis

Cytoplasmic Vacuolization

Degeneration, Cystic

Fibrosis, Cholangio

Hyperplasia, Nos

Depletion

Atrophy, Nos

Interstitial-Cell Tumor

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

**ANIMAL ID:** 1\_032

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Vacuolization
		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Prostate		Inflammation, Suppurative
Skin	Flank	Adnexal Adenoma
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:30

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

**Lab:** NA

**ANIMAL ID:** 1\_033

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Bone

Kidney

Liver

Skull

Pheochromocytoma

Hyperostosis

Nephrosis, Nos

Cytoplasmic Change, Basophilic

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Hyperplasia, Nos

Cystic Disease

Hyperplasia, Focal

Inflammation, Suppurative

Atrophy, Nos

Interstitial-Cell Tumor

Leukemia, Mononuclear Cell

Bile Duct

Mammary gland

Pituitary gland

Prostate

Testis

Unspecified

Multiple Organs Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 1\_034

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 1\_035

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lung		Congestion, Nos
Pituitary gland		Cytoplasmic Vacuolization
Prostate		Inflammation, Suppurative
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
Thyroid	Follicle	Pigmentation, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 1\_036

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Degeneration, Cystic

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Focal

Inflammation, Focal

Mammary gland

Cystic Disease

Testis

Atrophy, Nos

Interstitial-Cell Tumor

Thyroid

Follicle

Pigmentation, Nos

Unspecified

Pelvic Organs

Sarcoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 1\_037

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
		Inflammation, Focal
Lung		Alveolar/Bronchiolar Carcinoma
Mammary gland		Cystic Disease
Prostate		Inflammation, Suppurative
Thyroid		C-Cell Adenoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 1\_038

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Bone

Skull

Hyperostosis

Kidney

Nephrosis, Nos

Liver

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Inflammation, Focal

Lung

Hyperplasia, Alveolar Epithelium

Mammary gland

Cystic Disease

Pituitary gland

Focal Cellular Change

Testis

Atrophy, Nos

Interstitial-Cell Tumor

Thyroid

C-Cell Adenoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 1\_039

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Bone	Skull	Hyperostosis
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Pancreas		Atrophy, Focal
Testis		Hyperplasia, Interstitial Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 1\_040

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Mammary gland

Cystic Disease

Pancreas

Atrophy, Focal

Pituitary gland

Granuloma, Lipo

Prostate

Inflammation, Suppurative

Testis

Atrophy, Nos

Edema, Nos

Interstitial-Cell Tumor

Thyroid

Cystic Follicles

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 1\_041

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Brain	Basal Surface	Displacement, Nos
Eye		Retinopathy
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Lymph node	Pancreatic Lymph Node	Congestion, Nos
Mammary gland		Cystic Disease
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative
Testis		Atrophy, Nos
		Hemorrhage
		Interstitial-Cell Tumor
	Tunica Vaginalis	Mesothelioma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 1\_042

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Bone

Skull

Hyperostosis

Kidney

Nephrosis, Nos

Liver

Cytoplasmic Vacuolization

Degeneration, Cystic

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Inflammation, Focal

Mammary gland

Cystic Disease

Prostate

Inflammation, Suppurative

Testis

Interstitial-Cell Tumor

Thyroid

C-Cell Carcinoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 1\_043

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Liver		Cytoplasmic Vacuolization
		Degeneration, Cystic
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
Thyroid		C-Cell Carcinoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 1\_044

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Eye

Cataract

Kidney

Retinopathy

Liver

Nephrosis, Nos

Cytoplasmic Vacuolization

Bile Duct

Fibrosis, Cholangio

Mammary gland

Hyperplasia, Nos

Cystic Disease

Testis

Granuloma, Lipo

Thyroid

Interstitial-Cell Tumor

C-Cell Adenoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 1\_045

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Cytoplasmic Vacuolization
Bone	Skull	Hyperostosis
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Vacuolization
	Bile Duct	Fibrosis, Cholangio
		Hyperplasia, Nos
Lung	Alveoli	Inflammation, Focal
Mammary gland		Histiocytosis
Pancreas		Cystic Disease
Testis		Atrophy, Focal
Unspecified	Groin	Interstitial-Cell Tumor
		Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 1\_046

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Liver

Prostate

Testis

Bile Duct

Pheochromocytoma

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Hyperplasia, Nos

Inflammation, Suppurative

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_047

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Vacuolization
		Degeneration, Cystic
	Bile Duct	Fibrosis, Cholangio
Mammary gland		Hyperplasia, Nos
Testis		Cystic Disease
		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_048

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Bone  
Brain  
Heart  
Kidney  
Liver

Cortex Nos  
Skull  
Pallium  
Myocardium Nos

Cytoplasmic Vacuolization  
Hyperostosis  
Displacement, Nos  
Fibrosis, Focal  
Nephrosis, Nos  
Cytoplasmic Change, Basophilic  
Fibrosis, Cholangio  
Hyperplasia, Nos  
Inflammation, Focal  
Atrophy, Focal  
Interstitial-Cell Tumor  
Pigmentation, Nos

Bile Duct

Pancreas  
Testis  
Thyroid

Follicle

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 1\_049

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Liver

Mammary gland

Pancreas

Testis

Thyroid

Bile Duct

Nephrosis, Nos

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Hyperplasia, Nos

Cystic Disease

Cystic Ducts

Granuloma, Lipo

Atrophy, Focal

Interstitial-Cell Tumor

C-Cell Adenoma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 1\_050

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Bone

Heart

Kidney

Liver

Mammary gland

Prostate

Testis

Skull

Myocardium Nos

Bile Duct

Pheochromocytoma

Hyperostosis

Fibrosis, Focal

Nephrosis, Nos

Fibrosis, Cholangio

Hyperplasia, Nos

Cystic Ducts

Inflammation, Suppurative

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 2\_001

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Cytoplasmic Vacuolization

Bile Duct

Hyperplasia, Nos

Mammary gland

Inflammation, Focal

Pancreas

Cystic Disease

Pituitary gland

Atrophy, Focal

Prostate

Hyperplasia, Focal

Testis

Inflammation, Suppurative

Thyroid

Follicle

Interstitial-Cell Tumor

Pigmentation, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_002

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Myocardium Nos

Bile Duct

Mammary gland

Pancreas

Pituitary gland

Prostate

Testis

Spermatic Cord Nos

Thyroid

Follicle

Unspecified

Groin

Pheochromocytoma

Fibrosis, Focal

Nephrosis, Nos

Fibrosis, Cholangio

Hyperplasia, Nos

Inflammation, Focal

Cyst, Hemorrhagic

Atrophy, Focal

Hyperplasia, Focal

Inflammation, Suppurative

Interstitial-Cell Tumor

Necrosis, Fat

Pigmentation, Nos

Inflammation, Suppurative

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_003

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Blood vessel  
Kidney  
Liver

Mesenteric Artery Nos

Periarteritis  
Nephrosis, Nos  
Fibrosis, Cholangio

Mammary gland  
Pancreas  
Testis  
Thyroid

Bile Duct

Hyperplasia, Nos  
Cystic Disease  
Atrophy, Focal  
Interstitial-Cell Tumor  
Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_004

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Bone

Skull

Hyperostosis

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Cytoplasmic Vacuolization

Bile Duct

Fibrosis, Cholangio

Hyperplasia, Nos

Pituitary gland

Inflammation, Focal

Hyperplasia, Focal

Testis

Interstitial-Cell Tumor

Tunica Vaginalis

Mesothelioma, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_005

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Myocardium Nos

Lung

Mammary gland

Parathyroid gland

Testis

Bile Duct

Alveoli

Pheochromocytoma

Fibrosis, Focal

Nephrosis, Nos

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Hyperplasia, Nos

Histiocytosis

Cystic Disease

Focal Cellular Change

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_006

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Inflammation, Focal

Lung

Hyperplasia, Alveolar Epithelium

Pituitary gland

Angiectasis

Prostate

Hyperplasia, Focal

Testis

Degeneration, Cystic

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_007

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Pituitary gland		Angiectasis
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_008

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Bone

Heart

Liver

Preputial gland

Prostate

Skin

Testis

Thyroid

Skull

Myocardium Nos

Bile Duct

Tail

Pheochromocytoma

Hyperostosis

Fibrosis, Focal

Fibrosis, Cholangio

Hyperplasia, Nos

Carcinoma, Nos

Degeneration, Cystic

Adnexal Adenoma

Atrophy, Nos

Interstitial-Cell Tumor

C-Cell Carcinoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_009

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Pheochromocytoma

Heart

Myocardium Nos

Fibrosis, Focal

Liver

Degeneration, Cystic

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Prostate

Inflammation, Suppurative

Testis

Interstitial-Cell Tumor

Spermatic Cord Nos

Necrosis, Fat

Unspecified

Groin

Inflammation, Suppurative

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_010

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Nos
		Inflammation, Focal
Mammary gland		Cystic Disease
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative
Testis		Interstitial-Cell Tumor
Thyroid	Follicle	Pigmentation, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_011

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Nephropathy

Liver

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Lymph node

Mandibular Lymph Node

Angiectasis

Nasal cavity

Mandibular Lymph Node

Hyperplasia, Nos

Testis

Hemorrhage

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_012

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Metamorphosis, Fatty

Lung

Leukocytosis, Nos

Stomach

Forestomach

Ulcer, Nos

Thyroid

C-Cell Adenoma

Unspecified

Multiple Organs Nos

Sarcoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_013

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Bone	Skull	Hyperostosis
	Skull	Osteosarcoma
Brain		Hemorrhage
		Necrosis, Focal
Kidney		Congestion, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lung		Congestion, Nos
Prostate		Inflammation, Suppurative
Testis		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_014

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Kidney  
Liver

Medulla

Hyperplasia, Focal  
Nephrosis, Nos  
Cytoplasmic Vacuolization  
Degeneration, Cystic  
Fibrosis, Cholangio

Bile Duct

Mammary gland  
Preputial gland

Hyperplasia, Nos  
Cystic Disease  
Hyperplasia, Cystic  
Inflammation, Suppurative

Testis

Spermatic Cord Nos

Interstitial-Cell Tumor  
Necrosis, Fat

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_015

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
		Inflammation, Focal
Lung		Histiocytosis
Pituitary gland	Alveoli	Angiectasis
		Hyperplasia, Focal
Prostate		Inflammation, Suppurative
Testis		Interstitial-Cell Tumor
Unspecified	Pelvis	Inflammation, Suppurative

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_016

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Eye

Cortex Nos

Focal Cellular Change  
Cataract  
Retinopathy

Kidney  
Liver

Nephrosis, Nos  
Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos  
Inflammation, Focal

Mammary gland  
Pituitary gland

Cystic Disease  
Angiectasis

Prostate  
Testis

Hyperplasia, Focal  
Inflammation, Suppurative

Atrophy, Nos

Unspecified

Axilla

Interstitial-Cell Tumor  
Fibroma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_017

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Vacuolization
		Degeneration, Cystic
	Bile Duct	Hyperplasia, Nos
Pancreas		Atrophy, Focal
Testis		Atrophy, Nos
		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_018

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Vacuolization
		Degeneration, Cystic
		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Mammary gland		Cystic Disease
Prostate		Inflammation, Suppurative
Spleen		Accessory Structure
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
	Spermatic Cord Nos	Necrosis, Fat

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_019

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
		Inflammation, Focal
Lung	Alveoli	Histiocytosis
Mammary gland		Cystic Disease
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative
Skin	Flank	Keratoacanthoma
Spleen		Hematopoiesis
Testis		Interstitial-Cell Tumor
Thyroid	Follicle	Pigmentation, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_020

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
		Inflammation, Focal
Mammary gland		Cystic Disease
Skin	Tail	Adnexal Adenoma
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_021

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Nephrosis, Nos

Liver

Cytoplasmic Change, Basophilic

Bile Duct

Fibrosis, Cholangio

Hyperplasia, Nos

Lung

Inflammation, Focal

Mammary gland

Alveoli

Histiocytosis

Testis

Cystic Disease

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_022

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Pituitary gland		Hematoma, Nos
Prostate		Inflammation, Suppurative
Unspecified	Multiple Organs Nos	Leukocytosis, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_023

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Liver

Lung

Mammary gland

Pancreas

Preputial gland

Testis

Bile Duct

Alveoli

Nephrosis, Nos

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Hyperplasia, Nos

Histiocytosis

Cystic Disease

Atrophy, Focal

Inflammation, Suppurative

Atrophy, Nos

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_024

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Angiectasis

Ear

Pheochromocytoma

Kidney

Squamous Cell Papilloma

Liver

Nephrosis, Nos

Testis

Bile Duct

Fibrosis, Cholangio

Thyroid

Follicle

Hyperplasia, Nos

Atrophy, Nos

Interstitial-Cell Tumor

Pigmentation, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_025

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Prostate		Inflammation, Suppurative
Seminal vesicle		Collapse
Testis		Interstitial-Cell Tumor
Thyroid		C-Cell Adenoma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 2\_026

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Bone	Skull	Hyperostosis
Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
		Inflammation, Focal
Lung	Alveoli	Histiocytosis
Pancreas		Degeneration, Cystic
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative
Testis		Interstitial-Cell Tumor

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_027

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Cytoplasmic Vacuolization
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Pituitary gland		Adenoma, Nos
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_028

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Inflammation, Focal

Preputial gland

Inflammation, Suppurative

Testis

Atrophy, Nos

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 2\_029

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney		Nephrosis, Nos
Liver		Degeneration, Cystic
		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Pancreas	Islets	Islet-Cell Carcinoma
Pituitary gland		Focal Cellular Change
Testis		Interstitial-Cell Tumor
Thyroid		C-Cell Carcinoma
Trachea		C-Cell Carcinoma, Invasive
Unspecified	Multiple Organs Nos	C-Cell Carcinoma, Metastatic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_030

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Intestine Small	Mesentery Nos	Necrosis, Fat
Kidney		Cyst, Nos
		Nephrosis, Nos
Liver		Cytoplasmic Vacuolization
		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 2\_031

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Myocardium Nos

Lung

Mammary gland

Pancreas

Pituitary gland

Spleen

Testis

Thyroid

Bile Duct

Alveoli

Islets

Follicle

Pheochromocytoma

Fibrosis, Focal

Nephrosis, Nos

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Hyperplasia, Nos

Histiocytosis

Cystic Disease

Islet-Cell Adenoma

Hyperplasia, Focal

Leiomyosarcoma

Interstitial-Cell Tumor

C-Cell Carcinoma

Pigmentation, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 2\_032

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Kidney  
Liver

Cortex Nos

Cytoplasmic Vacuolization  
Nephrosis, Nos  
Cytoplasmic Vacuolization  
Degeneration, Cystic  
Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos  
Inflammation, Focal

Lung  
Mammary gland  
Pituitary gland  
Prostate  
Testis

Alveoli

Histiocytosis  
Cystic Disease  
Hyperplasia, Focal  
Inflammation, Suppurative

Tunica Vaginalis

Atrophy, Nos  
Mesothelioma, Nos  
Periarteritis  
Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_033

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Kidney  
Liver

Cortex Nos

Cytoplasmic Vacuolization  
Nephrosis, Nos  
Cytoplasmic Vacuolization  
Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos  
Cystic Disease  
Carcinoma, Nos  
Interstitial-Cell Tumor

Mammary gland  
Preputial gland  
Testis

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_034

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Bone  
Intestine Small  
Kidney  
Liver

Skull  
Mesentery Nos

Hyperostosis  
Mastocytosis  
Nephrosis, Nos  
Cytoplasmic Vacuolization  
Deformity, Nos  
Degeneration, Cystic  
Fibrosis, Cholangio  
Hyperplasia, Nos  
Inflammation, Focal  
Histiocytosis  
Cystic Disease  
Interstitial-Cell Tumor

Bile Duct

Lung  
Mammary gland  
Testis

Alveoli

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_035

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Kidney  
Liver

Cortex Nos

Cytoplasmic Vacuolization  
Nephrosis, Nos  
Fibrosis, Cholangio  
Hyperplasia, Nos  
Inflammation, Focal

Lung  
Mammary gland  
Pancreas

Bile Duct

Alveoli

Histiocytosis  
Cystic Disease  
Atrophy, Focal  
Islet-Cell Adenoma  
Adenoma, Nos  
Inflammation, Suppurative  
Interstitial-Cell Tumor

Pituitary gland  
Prostate  
Testis

Islets

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_036

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Kidney  
Liver

Cortex Nos

Cytoplasmic Vacuolization  
Nephrosis, Nos  
Cytoplasmic Vacuolization

Bile Duct

Fibrosis, Cholangio  
Hyperplasia, Nos  
Inflammation, Focal

Mammary gland  
Pituitary gland  
Prostate  
Testis

Cystic Disease  
Adenoma, Nos  
Inflammation, Suppurative  
Atrophy, Nos  
Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_037

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large  
Kidney  
Liver

Mucosa, Colon

Adenomatous Polyp, Nos  
Nephrosis, Nos  
Cytoplasmic Vacuolization  
Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos  
Cystic Disease  
Inflammation, Suppurative  
Interstitial-Cell Tumor

Mammary gland  
Prostate  
Testis

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_038

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Nephrosis, Nos

Liver

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Alveoli

Histiocytosis

Lung

Cystic Disease

Mammary gland

Inflammation, Suppurative

Prostate

Interstitial-Cell Tumor

Testis

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_039

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Pheochromocytoma

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Inflammation, Focal

Pituitary gland

Adenoma, Nos

Prostate

Inflammation, Suppurative

Testis

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_040

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
Parathyroid gland		Focal Cellular Change
Pituitary gland		Angiectasis
Seminal vesicle		Collapse
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
Trachea	Peritracheal Tissue	Pigmentation, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_041

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Prostate		Inflammation, Suppurative
Salivary gland		Atrophy, Nos
Stomach		Metamorphosis, Fatty
Testis		Edema, Nos
Unspecified	Multiple Organs Nos	Interstitial-Cell Tumor
		Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 2\_042

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Cytoplasmic Change, Nos
Bone	Skull	Hyperostosis
Brain		Hemorrhage
Epididymis		Edema, Nos
Kidney		Nephrosis, Nos
Liver	Centrilobular	Atrophy, Nos
	Bile Duct	Degeneration, Cystic
Mammary gland		Hyperplasia, Nos
Pancreas		Cystic Disease
Prostate		Atrophy, Focal
Testis		Inflammation, Suppurative
Unspecified	Flank	Interstitial-Cell Tumor
	Multiple Organs Nos	Fibroma
		Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 2\_043

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney

Nephrosis, Nos

Liver

Bile Duct

Hyperplasia, Nos

Lung

Leukocytosis, Nos

Carcinoma, Nos, Metastatic

Mammary gland

Hyperplasia, Alveolar Epithelium

Pituitary gland

Cystic Disease

Prostate

Hyperplasia, Focal

Testis

Inflammation, Suppurative

Interstitial-Cell Tumor

Tunica Vaginalis

Mesothelioma, Nos

Thyroid

Cystic Follicles

Zymbal gland

Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_044

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Kidney  
Liver

Medulla

Hyperplasia, Focal  
Nephrosis, Nos  
Degeneration, Cystic

Mammary gland  
Prostate  
Testis

Bile Duct

Fibrosis, Cholangio  
Hyperplasia, Nos  
Cystic Disease  
Inflammation, Suppurative

Thyroid

Degeneration, Cystic  
Interstitial-Cell Tumor  
Cystic Follicles

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_045

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Degeneration, Cystic
		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cyst, Hemorrhagic
Prostate		Inflammation, Suppurative
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell
Unspecified	Abdomen	Necrosis, Fat

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_046

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Liver

Nephrosis, Nos

Angiectasis

Fibrosis, Cholangio

Focal Cellular Change

Bile Duct

Hyperplasia, Nos

Mammary gland

Pancreas

Cystic Disease

Acinar-Cell Adenoma

Pituitary gland

Testis

Atrophy, Focal

Adenoma, Nos

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_047

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Lung

Mammary gland

Prostate

Testis

Myocardium Nos

Bile Duct

Pheochromocytoma

Fibrosis, Focal

Nephrosis, Nos

Hyperplasia, Nos

Congestion, Nos

Cystic Disease

Inflammation, Suppurative

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_048

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
Pancreas		Atrophy, Focal
Skin	Chest	Keratoacanthoma
Testis		Interstitial-Cell Tumor
	Spermatic Cord Nos	Necrosis, Fat
Zymbal gland		Squamous Cell Carcinoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_049

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Liver

Mammary gland

Pituitary gland

Prostate

Testis

Bile Duct

Nephrosis, Nos

Fibrosis, Cholangio

Hyperplasia, Nos

Cystic Disease

Adenoma, Nos

Inflammation, Suppurative

Atrophy, Nos

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 2\_050

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Mammary gland		Cystic Disease
Prostate		Inflammation, Suppurative
Testis		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_001

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_002

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Kidney

Liver

Pituitary gland

Preputial gland

Testis

Unspecified

Bile Duct

Multiple Organs Nos

Pheochromocytoma

Nephrosis, Nos

Hyperplasia, Nos

Hyperplasia, Focal

Inflammation, Suppurative

Interstitial-Cell Tumor

Sarcoma, Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_003

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Focal Cellular Change
	Medulla	Hyperplasia, Focal
Bone	Skull	Hyperostosis
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Pancreas	Islets	Islet-Cell Adenoma
Pituitary gland		Adenoma, Nos
Testis		Interstitial-Cell Tumor
Thyroid		C-Cell Adenoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_004

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Lung

Prostate

Testis

Myocardium Nos

Bile Duct

Pheochromocytoma

Fibrosis, Focal

Nephrosis, Nos

Fibrosis, Cholangio

Hyperplasia, Nos

Hyperplasia, Alveolar Epithelium

Inflammation, Suppurative

Atrophy, Nos

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_005

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Prostate		Inflammation, Suppurative
Testis		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_006

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Lipoma

Nephrosis, Nos

Pelvis

Transitional-Cell Carcinoma

Liver

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Mammary gland

Cystic Disease

Pituitary gland

Adenoma, Nos

Prostate

Inflammation, Suppurative

Skin

Axilla

Fibroma

Testis

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_007

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos  
Medulla

Focal Cellular Change  
Hyperplasia, Focal  
Pheochromocytoma

Bone

Skull

Hyperostosis

Eye

Cataract

Heart

Myocardium Nos

Retinopathy

Liver

Fibrosis, Focal

Lung

Bile Duct

Fibrosis, Cholangio

Mammary gland

Hyperplasia, Nos

Testis

Histiocytosis

Cystic Disease

Atrophy, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 3\_008

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Pheochromocytoma

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Prostate

Inflammation, Suppurative

Testis

Interstitial-Cell Tumor

Thyroid

Cyst, Ultimobranchial

Cystic Follicles

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_009

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
Lymph node	Mesenteric Lymph Node	Angiectasis
Spleen		Infarct, Nos
Stomach	Forestomach	Ulcer, Nos
Testis		Interstitial-Cell Tumor
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_010

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Brain		Hemorrhage
		Necrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
		Necrosis, Focal
Lung		Alveolar/Bronchiolar Adenoma
Mammary gland		Cystic Disease
Prostate		Hyperplasia, Cystic
Testis		Interstitial-Cell Tumor
Thyroid		Degeneration, Cystic
		Pigmentation, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_011

**TRT#:** 3

**DOSE:** 0

**SEX:** Male

**DISP:** Terminal Sacrifice

**DAY ON TEST:**

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Epididymis

Kidney

Liver

Bile Duct

Serosa

Prostate

Spleen

Testis

Thyroid

Unspecified

Groin

Pheochromocytoma

Dilatation, Nos

Nephrosis, Nos

Cytoplasmic Vacuolization

Deformity, Nos

Fibrosis, Cholangio

Hyperplasia, Nos

Mesothelioma, Nos

Inflammation, Suppurative

Mesothelioma, Nos

Interstitial-Cell Tumor

Cystic Follicles

Inflammation, Suppurative

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_012

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Liver		Fibrosis, Cholangio Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
Pancreas		Atrophy, Focal
Stomach	Forestomach	Inflammation, Focal
Testis		Atrophy, Nos Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_013

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Bone	Skull	Osteosarcoma
Brain		Osteosarcoma, Invasive
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
Pituitary gland		Acidophil Adenoma
Prostate		Inflammation, Suppurative
Skin	Tail	Squamous Cell Papilloma
Spleen		Cyst, Nos
		Fibrosis
Testis		Interstitial-Cell Tumor
Thyroid		Cystic Follicles
Unspecified	Head	Osteosarcoma, Invasive

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_014

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Kidney

Nephrosis, Nos

Liver

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Pancreas

Atrophy, Focal

Prostate

Inflammation, Suppurative

Testis

Interstitial-Cell Tumor

Thyroid

C-Cell Adenoma

Unspecified

Groin

Cystic Follicles

Squamous Cell Carcinoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_015

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
		Inflammation, Focal
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
Thyroid		C-Cell Adenoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C54897

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: HC blue 2

CAS Number: 33229-34-4

Date Report Requested: 10/26/2014

Time Report Requested: 13:26:31

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_016

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland  
Eye

Cortex Nos

Metamorphosis, Fatty

Cataract

Hemorrhage

Retinopathy

Kidney

Nephrosis, Nos

Liver

Congestion, Nos

Metamorphosis, Fatty

Lung

Centrilobular

Necrosis, Nos

Congestion, Nos

Histiocytosis

Mammary gland

Cystic Disease

Pituitary gland

Adenoma, Nos

Angiectasis

Prostate

Inflammation, Suppurative

Skin

Face

Keratoacanthoma

Stomach

Forestomach

Hyperplasia, Epithelial

Ulcer, Nos

Testis

Atrophy, Nos

Interstitial-Cell Tumor

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 3\_017

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Pancreas		Cystic Ducts
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_018

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Skin

Basal-Cell Carcinoma

Testis

Interstitial-Cell Tumor

Thyroid

Follicle

Accessory Structure

Follicle

Inflammation, Focal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 3\_019

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney	Perirenal Tissue	Necrosis, Fat Necrosis, Focal
Liver	Bile Duct	Hyperplasia, Nos
Pancreas		Atrophy, Focal
Preputial gland		Inflammation, Suppurative
Stomach	Forestomach	Ulcer, Nos
Testis	Spermatic Cord Nos	Necrosis, Fat
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_020

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
		Metamorphosis, Fatty
Mammary gland		Cystic Disease
Prostate		Inflammation, Suppurative
Testis		Interstitial-Cell Tumor
Thyroid	Follicle	Hyperplasia, Cystic
		Pigmentation, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_021

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Mammary gland		Cystic Disease
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdomen	Lipoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 3\_022

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Cytoplasmic Vacuolization
		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Pituitary gland		Hyperplasia, Focal
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_023

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lung		Hyperplasia, Alveolar Epithelium
Lymph node	Mesenteric Lymph Node	Hyperplasia, Nos
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
Thyroid		C-Cell Adenoma
	Follicle	Pigmentation, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_024

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Focal Cellular Change
Eye		Retinopathy
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
Mammary gland		Cystic Disease
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative
Skin	Flank	Fibroma
Spleen		Hematopoiesis
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
Thyroid		Cyst, Ultimobranchial

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_025

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Eye

Medulla

Hyperplasia, Focal  
Cataract

Intestine Small  
Kidney  
Liver

Mesentery Nos

Retinopathy  
Necrosis, Fat  
Nephrosis, Nos  
Fibrosis, Cholangio

Mammary gland  
Pituitary gland

Bile Duct

Hyperplasia, Nos  
Cystic Disease  
Adenoma, Nos  
Angiectasis

Prostate  
Testis

Inflammation, Suppurative  
Hyperplasia, Interstitial Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_026

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Nasal cavity	Mucosa	Inflammation, Focal
Pancreas		Atrophy, Focal
Pituitary gland		Focal Cellular Change
Spleen		Hematoma, Nos
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_027

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
		Infarct, Nos
Lymph node	Mediastinal Lymph Node	Angiectasis
	Mesenteric Lymph Node	Angiectasis
Mammary gland		Cystic Disease
Preputial gland		Carcinoma, Nos
Spleen		Hematopoiesis
Stomach	Mucosa	Necrosis, Focal
Testis		Interstitial-Cell Tumor
Thyroid		Degeneration, Cystic
Unspecified	Multiple Organs Nos	Lymphoma, Histiocytic-Malignant Type

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 3\_028

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Kidney

Liver

Pituitary gland

Testis

Unspecified

Bile Duct

Groin

Multiple Organs Nos

Pheochromocytoma

Nephrosis, Nos

Fibrosis, Cholangio

Hyperplasia, Nos

Hyperplasia, Focal

Interstitial-Cell Tumor

Fibroma

Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_029

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Brain		Hemorrhage
		Necrosis, Focal
Kidney		Nephrosis, Nos
Liver		Degeneration, Cystic
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Seminal vesicle		Collapse
Spleen		Infarct, Nos
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_030

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Heart

Liver

Myocardium Nos

Bile Duct

Lung

Mammary gland

Pituitary gland

Preputial gland

Prostate

Testis

Pheochromocytoma

Fibrosis, Focal

Cytoplasmic Vacuolization

Fibrosis, Cholangio

Hyperplasia, Nos

Leukocytosis, Nos

Congestion, Nos

Cystic Disease

Galactocele

Hyperplasia, Focal

Inflammation, Suppurative

Inflammation, Suppurative

Atrophy, Nos

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 3\_031

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Nephrosis, Nos

Liver

Degeneration, Cystic

Bile Duct

Fibrosis, Cholangio

Hyperplasia, Nos

Neoplastic Nodule

Mammary gland

Cystic Disease

Pituitary gland

Angiectasis

Prostate

Inflammation, Suppurative

Skin

Chest

Inflammation, Chronic

Testis

Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 3\_032

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Cyst, Nos

Nephrosis, Nos

Liver

Cytoplasmic Change, Basophilic

Degeneration, Cystic

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Pancreas

Atrophy, Focal

Pituitary gland

Hyperplasia, Focal

Testis

Interstitial-Cell Tumor

Thyroid

Degeneration, Cystic

Pigmentation, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_033

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Deformity, Nos

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Regeneration, Nodular

Pancreas

Atrophy, Focal

Prostate

Inflammation, Suppurative

Skin

Keratoacanthoma

Testis

Interstitial-Cell Tumor

Thyroid

Degeneration, Cystic

Pigmentation, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_034

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Eye		Retinopathy
Intestine Small	Jejunum	Leiomyosarcoma
Kidney		Nephrosis, Nos
Liver		Degeneration, Cystic
		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Pituitary gland		Hyperplasia, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 3\_035

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Brain	Pons Nos	Displacement, Nos
Heart	Myocardium Nos	Fibrosis, Focal
		Inflammation, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Suppurative
Testis		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

---

**ANIMAL ID:** 3\_036

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Focal Cellular Change

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Bile Duct

Hyperplasia, Nos

Metamorphosis, Fatty

Lymph node

Centrilobular

Necrosis, Nos

Testis

Mesenteric Lymph Node

Angiectasis

Atrophy, Nos

Unspecified

Multiple Organs Nos

Interstitial-Cell Tumor

Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_037

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Mammary gland		Cystic Disease
Skin	Flank	Basal-Cell Tumor
Testis		Interstitial-Cell Tumor
Thyroid		Degeneration, Cystic
	Follicle	Pigmentation, Nos
Unspecified	Face	Inflammation, Chronic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_038

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Epididymis  
Kidney  
Liver

Pheochromocytoma  
Necrosis, Fat  
Nephrosis, Nos  
Degeneration, Cystic  
Fibrosis, Cholangio

Bile Duct

Mammary gland  
Pituitary gland  
Prostate  
Salivary gland  
Testis  
Trachea

Hyperplasia, Nos  
Cystic Disease  
Hyperplasia, Focal  
Inflammation, Suppurative  
Cyst, Nos  
Atrophy, Nos  
Inflammation, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_039

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Nephrosis, Nos

Liver

Fibrosis, Cholangio

Bile Duct

Hyperplasia, Nos

Mammary gland

Cystic Disease

Prostate

Inflammation, Suppurative

Testis

Atrophy, Nos

Unspecified

Leg

Interstitial-Cell Tumor

Neurofibrosarcoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_040

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Heart  
Intestine Small  
Kidney  
Liver  
  
Prostate  
Testis

Medulla  
Myocardium Nos  
Jejunum  
  
Bile Duct

Hyperplasia, Focal  
Fibrosis, Focal  
Sarcoma, Nos  
Nephrosis, Nos  
Fibrosis, Cholangio  
Hyperplasia, Nos  
Inflammation, Suppurative  
Atrophy, Nos  
Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_041

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Testis

Thyroid

Unspecified

Myocardium Nos

Bile Duct

Multiple Organs Nos

Focal Cellular Change

Fibrosis, Focal

Nephrosis, Nos

Hyperplasia, Nos

Interstitial-Cell Tumor

C-Cell Adenoma

Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_042

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Lymph node

Mammary gland

Testis

Unspecified

Myocardium Nos

Bile Duct

Mandibular Lymph Node

Multiple Organs Nos

Groin

Pheochromocytoma

Fibrosis, Focal

Nephrosis, Nos

Hyperplasia, Nos

Hyperplasia, Nos

Fibroadenoma

Interstitial-Cell Tumor

Congestion, Nos

Sarcoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_043

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Focal Cellular Change Pheochromocytoma
Eye		Retinopathy
Kidney		Nephrosis, Nos
Liver		Degeneration, Cystic Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos Cystic Disease
Mammary gland		Atrophy, Focal
Pancreas		Inflammation, Suppurative
Prostate		
Skin	Flank	Keratoacanthoma
Testis		Interstitial-Cell Tumor
Thyroid		Cyst, Ultimobranchial Pigmentation, Nos
Unspecified	Thigh	Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_044

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Pancreas

Pituitary gland

Prostate

Testis

Unspecified

Myocardium Nos

Bile Duct

Multiple Organs Nos

Pheochromocytoma

Fibrosis, Focal

Nephrosis, Nos

Hyperplasia, Nos

Atrophy, Focal

Adenoma, Nos

Inflammation, Suppurative

Interstitial-Cell Tumor

Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_045

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Eye

Heart

Kidney

Liver

Myocardium Nos

Bile Duct

Testis

Pheochromocytoma

Hemorrhage

Phthisis Bulbi

Fibrosis, Focal

Nephrosis, Nos

Cytoplasmic Vacuolization

Degeneration, Cystic

Fibrosis, Cholangio

Hyperplasia, Nos

Interstitial-Cell Tumor

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_046

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Nephrosis, Nos
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
Lung		Congestion, Nos
Mammary gland		Cystic Disease
Testis		Interstitial-Cell Tumor
Unspecified	Lumbar Region	Osteosarcoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_047

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Pituitary gland

Prostate

Skin

Testis

Thyroid

Myocardium Nos

Bile Duct

Nose

Pheochromocytoma

Fibrosis, Focal

Nephrosis, Nos

Fibrosis, Cholangio

Hyperplasia, Nos

Angiectasis

Inflammation, Suppurative

Basal-Cell Tumor

Atrophy, Nos

C-Cell Adenoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

**ANIMAL ID:** 3\_048

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney		Nephrosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Disease
Prostate		Inflammation, Suppurative
Spleen		Infarct, Nos
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
	Spermatic Cord Nos	Necrosis, Fat
Thyroid		Hyperplasia, C Cell
Unspecified	Thorax	Fibroma
	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_049

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney

Nephrosis, Nos

Liver

Bile Duct

Hyperplasia, Nos

Mammary gland

Cystic Disease

Testis

Interstitial-Cell Tumor

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C54897

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** HC blue 2

**CAS Number:** 33229-34-4

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 13:26:31

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

**Lab:** NA

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**ANIMAL ID:** 3\_050

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Kidney  
Liver

Medulla

Hyperplasia, Focal  
Nephrosis, Nos  
Fibrosis, Cholangio

Mammary gland  
Pancreas

Bile Duct

Hyperplasia, Nos  
Cystic Disease  
Atrophy, Focal

Skin  
Testis  
Thyroid

Islets

Lower Leg

Islet-Cell Carcinoma  
Basal-Cell Tumor  
Interstitial-Cell Tumor  
Cystic Follicles

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PRIMARY CAUSE OF DEATH

-

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**\*\* END OF REPORT \*\***