

Experiment Number: 08010 - 01
Test Type: 90-DAY
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
2,3-Pentanedione
CAS Number: 600-14-6

Date Report Requested: 04/29/2016
Time Report Requested: 09:07:39
First Dose M/F: 09/13/10 / 09/14/10
Lab: BNW

F1_Rev.1_RE

NTP Study Number: C08010
Lock Date: 07/12/2011
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: NONE

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
WISTAR HAN RATS MALE	3	3	3	3	3	3	3	3	3	3	
Control	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	1	
		1	2	3	4	5	6	7	8	9	0
* TOTALS											

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	10	
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10	
Intestine Large, Colon Epithelium, Degeneration	+	+	+	+	+	+	+	+	+	+	10	1 1.0
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10	
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10	
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	10	
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	10	
Liver Infiltration Cellular, Mixed Cell	+	+	+	+	+	+	+	+	+	+	10	2 1.0
Pancreas Atrophy Inflammation, Chronic Active Acinus, Apoptosis Acinus, Eosinophilic Focus	+	+	+	+	+	+	+	+	+	+	10	1 1.0 1 1.0 1 1.0 1
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10	
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10	

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS MALE	DAY ON TEST										* TOTALS		
	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3			
Control	ANIMAL ID												
	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0			
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10		
Tooth Dysplasia		+	X				+	X			2	2	
CARDIOVASCULAR SYSTEM													
Blood Vessel	+	+	+	+	+	+	+	+	+	+	10		
Heart Cardiomyopathy	+	+	+	+	+	+	+	+	+	1	10	1 1.0	
ENDOCRINE SYSTEM													
Adrenal Cortex Accessory Adrenal Cortical Nodule	+	+	+	+	+	+	+	+	+	X	10	1	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10		
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	10		
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	10		
Pituitary Gland Cyst Pars Distalis, Cyst	+	+	+	+	+	+	+	+	+	+	10	1 1.0	1
Thyroid Gland Infiltration Cellular, Mononuclear Cell Inflammation, Chronic	+	+	+	+	+	+	+	+	+	+	10	1 1.0	1 1.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	ANIMAL ID		
	9	9	9	9	9	9	9	9	9	9			
WISTAR HAN RATS MALE	3	3	3	3	3	3	3	3	3	3			
Control	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	1	1	0	
	1	2	3	4	5	6	7	8	9	0			* TOTALS
Ultimobranchial Cyst			X					X	X				3

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+			10
Preputial Gland	+	+	+	+	+	+	+	+	+	+			10
Inflammation, Chronic Active			1	1	1	1	1		1	1		7	1.0
Prostate	+	+	+	+	+	+	+	+	+	+			10
Inflammation, Chronic Active				1			1		2			3	1.3
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+			10
Testes	+	+	+	+	+	+	+	+	+	+			10
Edema	1		1	1		1	1	1				6	1.0

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+			10
Lymph Node, Bronchial	+	+	+	+	+	+	+	+	+	+			10
Lymph Node, Mandibular	M	M	+	+	+	M	M	+	+	+			6
Lymph Node, Mediastinal	+	+	+	+	+	+	+	M	+	+			9
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+			10

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS MALE	DAY ON TEST										* TOTALS
	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	
Control	ANIMAL ID										
	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	
Hyperplasia, Histiocytic			1			1			1		3 1.0
Spleen	+	+	+	+	+	+	+	+	+	+	10
Pigmentation		2	1		1		1		1	2	6 1.3
Thymus	+	+	+	+	+	+	+	+	+	+	10
INTEGUMENTARY SYSTEM											
Mammary Gland	M	M	M	M	M	M	M	+	+	M	2
Skin	+	+	+	+	+	+	+	+	+	+	10
MUSCULOSKELETAL SYSTEM											
Bone	+	+	+	+	+	+	+	+	+	+	10
NERVOUS SYSTEM											
Brain	+	+	+	+	+	+	+	+	+	+	10
RESPIRATORY SYSTEM											
Larynx	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic Active		1									1 1.0
Respiratory Epithelium, Metaplasia, Squamous							1				1 1.0
Lung	+	+	+	+	+	+	+	+	+	+	10
Infiltration Cellular, Histiocyte		1			1	2	1		1		5 1.2
Inflammation, Eosinophil		1			1				1		3 1.0
Metaplasia, Osseous							1				1 1.0
Alveolar Epithelium, Hyperplasia		1									1 1.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
WISTAR HAN RATS MALE	3	3	3	3	3	3	3	3	3	3	
Control	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		1	2	3	4	5	6	7	8	9	0
* TOTALS											
Alveolar Epithelium, Hyperplasia, Focal				1							1 1.0
Perivascular, Infiltration Cellular, Mononuclear Cell	1		1								2 1.0
Nose	+	+	+	+	+	+	+	+	+	+	10
Lamina Propria, Nasopharyngeal Duct, Mineralization					1						1 1.0
Nasopharyngeal Duct, Mineralization					1						1 1.0
Olfactory Epithelium, Accumulation, Hyaline Droplet	1					1					2 1.0
Olfactory Epithelium, Atrophy			1								1 1.0
Olfactory Epithelium, Degeneration					1		1				2 1.0
Olfactory Epithelium, Metaplasia, Respiratory					1		1				2 1.0
Respiratory Epithelium, Degeneration				2							1 2.0
Vomeranasal Organ, Inflammation, Suppurative				3							1 3.0
Trachea	+	+	+	+	+	+	+	+	+	+	10
SPECIAL SENSES SYSTEM											
Eye	+	+	+	+	+	+	+	+	+	+	10
Harderian Gland	+	+	+	+	+	+	+	+	+	+	10
Concretion		X	X		X				X	X	5
Hyperplasia	1			1				1			3 1.0
Inflammation, Chronic Active				1			1			1	3 1.0
URINARY SYSTEM											
Kidney	+	+	+	+	+	+	+	+	+	+	10
Infiltration Cellular, Mononuclear Cell			1								1 1.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

		0	0	0	0	0	0	0	0	0	
WISTAR HAN RATS MALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	
		3	3	3	3	3	3	3	3	3	
	Control										
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	1	
		1	2	3	4	5	6	7	8	9	0
* TOTALS											
Nephropathy					1		1		1		3 1.0
Cortex, Cyst										X	1
Renal Tubule, Casts Protein									1		1 1.0
Renal Tubule, Hyperplasia		1									1 1.0
Urinary Bladder		+	+	+	+	+	+	+	+	+	10

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS MALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	* TOTALS
		0	0	0	0	0	0	0	0	0	0	0	
6.25 ppm	ANIMAL ID	9	9	9	9	9	9	9	9	9	9	9	
		3	3	3	3	3	3	3	3	3	3	3	
		0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	2	2	
		0	0	0	0	0	0	0	0	0	1	0	
		1	2	3	4	5	6	7	8	9	0	0	

ALIMENTARY SYSTEM

NONE

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

Skin + 1 1.0
 Inflammation, Acute 1

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST		0	0	0	0	0	0	0	0	0	0
WISTAR HAN RATS MALE		0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9
		3	3	3	3	3	3	3	3	3	3
6.25 ppm		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2	2	2
		0	0	0	0	0	0	0	0	0	1
		1	2	3	4	5	6	7	8	9	0
* TOTALS											

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

Larynx	+	+	+	+	+	+	+	+	+	+	10		
Respiratory Epithelium, Hyperplasia	1											1	1.0
Respiratory Epithelium, Metaplasia, Squamous	1											1	1.0
Lung	+	+	+	+	+	+	+	+	+	+	10		
Infiltration Cellular, Histiocyte				1		1				1		3	1.0
Inflammation, Eosinophil	1		1			1						3	1.0
Metaplasia, Osseous	1					1						2	1.0
Perivascular, Infiltration Cellular, Mononuclear Cell						1						1	1.0
Nose	+	+	+	+	+	+	+	+	+	+	10		
Hyperplasia, Lymphoid			1									1	1.0
Nasolacrimal Duct, Inflammation, Chronic Active			2									1	2.0
Olfactory Epithelium, Atrophy						1						1	1.0
Respiratory Epithelium, Hyperplasia								1				1	1.0
Trachea	+	+	+	+	+	+	+	+	+	+	10		
Epithelium, Regeneration							1					1	1.0

SPECIAL SENSES SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

		0	0	0	0	0	0	0	0	0	
WISTAR HAN RATS MALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	
		3	3	3	3	3	3	3	3	3	
	6.25 ppm										
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		2	2	2	2	2	2	2	2	2	
		0	0	0	0	0	0	0	0	1	
		1	2	3	4	5	6	7	8	9	0
* TOTALS											
Eye		+	+	+	+	+	+	+	+	+	10
Lens, Cataract									X		1
Retina, Atrophy									3		1 3.0

URINARY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
Test Type: 90-DAY
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
2,3-Pentanedione
CAS Number: 600-14-6

Date Report Requested: 04/29/2016
Time Report Requested: 09:07:39
First Dose M/F: 09/13/10 / 09/14/10
Lab: BNW

	DAY ON TEST										
WISTAR HAN RATS MALE	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
12.5 ppm	3	3	3	3	3	3	3	3	3	3	

		ANIMAL ID									
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
	4	4	4	4	4	4	4	4	4	4	
	0	0	0	0	0	0	0	0	0	1	
	1	2	3	4	5	6	7	8	9	0	
										* TOTALS	

ALIMENTARY SYSTEM

Tooth + 1
Peridental Tissue, Abscess X 1

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

Lymph Node, Mesenteric + 1
Hemorrhage 2 1 2.0

INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue
X .. Lesion present A .. Autolysis precludes evaluation
I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	WISTAR HAN RATS MALE	0	0	0	0	0	0	0	0	0
12.5 ppm	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	4	4	4	4	4	4	4	4	4	4
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0
* TOTALS										

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

Larynx	+	+	+	+	+	+	+	+	+	+	10		
Respiratory Epithelium, Metaplasia, Squamous								1				1	1.0
Lung	+	+	+	+	+	+	+	+	+	+	10		
Inflammation, Eosinophil		1										1	1.0
Inflammation, Chronic Active					1							1	1.0
Metaplasia, Osseous								1				1	1.0
Nose	+	+	+	+	+	+	+	+	+	+	10		
Hyperplasia, Lymphoid		1										1	1.0
Olfactory Epithelium, Metaplasia, Respiratory			1							1		2	1.0
Respiratory Epithelium, Hyperplasia	1								1			2	1.0
Respiratory Epithelium, Metaplasia, Squamous					1							1	1.0
Trachea	+	+	+	+	+	+	+	+	+	+	10		
Epithelium, Regeneration					1							1	1.0

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	I	+	+	9		
Conjunctiva, Inflammation, Acute						1		1				2	1.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS MALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
12.5 ppm		9	9	9	9	9	9	9	9	9	
		3	3	3	3	3	3	3	3	3	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		4	4	4	4	4	4	4	4	4	
		0	0	0	0	0	0	0	0	1	
		1	2	3	4	5	6	7	8	9	0
* TOTALS											

URINARY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS MALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9	9	9	9
		3	3	3	3	3	3	3	3	3	3	3	3	3
25 ppm	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
		6	6	6	6	6	6	6	6	6	6	6	6	6
		0	0	0	0	0	0	0	0	0	0	0	1	0
		1	2	3	4	5	6	7	8	9	0			
* TOTALS														

ALIMENTARY SYSTEM

NONE

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST		0	0	0	0	0	0	0	0	0	0
WISTAR HAN RATS MALE		0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9
		3	3	3	3	3	3	3	3	3	3
25 ppm		0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		6	6	6	6	6	6	6	6	6	6
		0	0	0	0	0	0	0	0	0	1
		1	2	3	4	5	6	7	8	9	0
* TOTALS											

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

Larynx	+	+	+	+	+	+	+	+	+	+	10		
Respiratory Epithelium, Hyperplasia						1						1	1.0
Respiratory Epithelium, Metaplasia, Squamous		1			1		1	1	1			5	1.0
Lung	+	+	+	+	+	+	+	+	+	+	10		
Infiltration Cellular, Histiocyte						1	3					2	2.0
Inflammation, Eosinophil			1		1	1	1		1			5	1.0
Metaplasia, Osseous	1								1	1		3	1.0
Nose	+	+	+	+	+	+	+	+	+	+	10		
Hyperplasia, Lymphoid					1							1	1.0
Inflammation, Suppurative	1						1					2	1.0
Olfactory Epithelium, Accumulation, Hyaline Droplet		1										1	1.0
Olfactory Epithelium, Atrophy				1	1			1	1			4	1.0
Olfactory Epithelium, Degeneration	1							1				2	1.0
Olfactory Epithelium, Metaplasia, Respiratory				1								1	1.0
Respiratory Epithelium, Hyperplasia	1	1	1	1	1	1	1		1	1		9	1.0
Trachea	+	+	+	+	+	+	+	+	+	+	10		
Inflammation, Acute					1							1	1.0

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+	10		
-----	---	---	---	---	---	---	---	---	---	---	-----------	--	--

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

		0	0	0	0	0	0	0	0	0	
WISTAR HAN RATS MALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	
		3	3	3	3	3	3	3	3	3	
25 ppm	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		6	6	6	6	6	6	6	6	6	
		0	0	0	0	0	0	0	0	0	1
		1	2	3	4	5	6	7	8	9	0
										* TOTALS	
Retina, Dysplasia										X X	2

URINARY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS MALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
50 ppm	ANIMAL ID	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
		1	2	3	4	5	6	7	8	9	0								
* TOTALS																			

ALIMENTARY SYSTEM

NONE

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

Adrenal Cortex + 1
 Inflammation, Lymphoid 2 1 2.0

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	WISTAR HAN RATS MALE	0	0	0	0	0	0	0	0	0
50 ppm	9	9	9	9	9	9	9	9	9	9
ANIMAL ID	3	3	3	3	3	3	3	3	3	3
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	8	8	8	8	8	8	8	8	8	8
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0
* TOTALS										

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

Larynx	+	+	+	+	+	+	+	+	+	+	10	
Inflammation, Suppurative	1	1										2 1.0
Respiratory Epithelium, Hyperplasia	1	1	1	1	1		1		1			7 1.0
Respiratory Epithelium, Metaplasia, Squamous	2	2	1	1	1	1	2	2	2	3		10 1.7
Respiratory Epithelium, Regeneration								1				1 1.0
Lung	+	+	+	+	+	+	+	+	+	+	10	
Infiltration Cellular, Histiocyte	2	1		1								3 1.3
Inflammation, Eosinophil			1				1		1			3 1.0
Mineralization, Focal				1								1 1.0
Bronchiole, Epithelium, Hyperplasia	1		1							1		3 1.0
Bronchus, Epithelium, Regeneration	1											1 1.0
Nose	+	+	+	+	+	+	+	+	+	+	10	
Hyperplasia, Lymphoid	1			2		1	1	1	1	1		7 1.1
Inflammation, Suppurative	2	3	3	2	2	2	2	2	2	3		10 2.3
Olfactory Epithelium, Atrophy	1	1	1	1	1	1	1	1	1	1		10 1.0
Olfactory Epithelium, Degeneration	1	1	2	1	2	2	1	2	1	1		10 1.4
Olfactory Epithelium, Metaplasia, Respiratory	1	1	1		1	1	1		1	1		8 1.0
Respiratory Epithelium, Hyperplasia	2	2	2	2	2	2	2	2	2	3		10 2.1
Respiratory Epithelium, Metaplasia, Squamous	1	1	1	1	1	1	1	2	1	1		10 1.1
Respiratory Epithelium, Necrosis		1				1						2 1.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS MALE	DAY ON TEST										ANIMAL ID			
	093	093	093	093	093	093	093	093	093	093				
50 ppm	0	0	0	0	0	0	0	0	0	0	0			
	0	0	0	0	0	0	0	0	0	0	0			
	8	8	8	8	8	8	8	8	8	8	8			
	0	0	0	0	0	0	0	0	0	0	1			
	1	2	3	4	5	6	7	8	9	0	0			
* TOTALS														
Turbinate, Atrophy			2		1								2	1.5
Trachea	+	+	+	+	+	+	+	+	+	+	+	10		
Inflammation, Suppurative			3								1	3.0		
Epithelium, Regeneration	1	3	1	2	1	1			1	1	8		1.4	
SPECIAL SENSES SYSTEM														
Eye	+	+	+	+	+	+	+	+	+	+	+	10		
Phthisis Bulbi											X	1		
Anterior Chamber, Inflammation, Acute					1					1	2	1.0		
Ciliary Body, Inflammation, Acute					1			2	1	3		1.3		
Conjunctiva, Inflammation, Acute	1									1	1.0			
Cornea, Inflammation, Acute					1			1	1	3		1.0		
Cornea, Ulcer									2	1	2.0			
Iris, Inflammation, Acute					1			1	2		1.0			
Retina, Atrophy					3								1	3.0
URINARY SYSTEM														
Kidney				+								1		
Pelvis, Dilatation				1								1	1.0	

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS MALE	DAY ON TEST										* TOTALS
	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	
100 ppm	0 1 0 0 1	0 1 0 0 2	0 1 0 0 3	0 1 0 0 4	0 1 0 0 5	0 1 0 0 6	0 1 0 0 7	0 1 0 0 8	0 1 0 0 9	0 1 0 0 0	

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	10
Liver	+	+	+	+	+	+	+	+	+	+	10
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Atrophy					1				1		2 1.0
Acinus, Apoptosis					2						1 2.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	10
--------------	---	---	---	---	---	---	---	---	---	---	----

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS MALE 100 ppm	DAY ON TEST										ANIMAL ID	
	0093	0093	0093	0093	0093	0093	0093	0093	0093	0093		
	0	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	1	0	
	1	2	3	4	5	6	7	8	9	0		* TOTALS

Heart	+	+	+	+	+	+	+	+	+	+	10	
Cardiomyopathy		1			1		1			1		4 1.0

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10	
Accessory Adrenal Cortical Nodule	X											1
Hypertrophy							1					1 1.0
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	10	
Parathyroid Gland	+	+	M	+	+	+	+	+	+	+	9	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	10	
Pars Distalis, Hyperplasia					1							1 1.0
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10	
Ultimobranchial Cyst		X										1

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	10	
Preputial Gland	+	+	+	+	+	+	+	+	+	+	10	
Inflammation, Chronic Active	1	1			1	1		1	1	1		7 1.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01

Test Type: 90-DAY

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

2,3-Pentanedione

CAS Number: 600-14-6

Date Report Requested: 04/29/2016

Time Report Requested: 09:07:39

First Dose M/F: 09/13/10 / 09/14/10

Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
WISTAR HAN RATS MALE	3	3	3	3	3	3	3	3	3	3	
100 ppm											
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	1	
	1	2	3	4	5	6	7	8	9	0	* TOTALS
Prostate	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic Active							1			1	2 1.0
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	10
Testes	+	+	+	+	+	+	+	+	+	+	10
Edema			1	1	1	1		1	1	1	7 1.0
HEMATOPOIETIC SYSTEM											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Bronchial	+	+	+	+	+	+	+	+	+	M	9
Hyperplasia, Plasma Cell							1				1 1.0
Pigmentation				1							1 1.0
Lymph Node, Mandibular	M	+	+	+	+	+	+	+	+	+	9
Hyperplasia, Plasma Cell				2			2				2 2.0
Lymph Node, Mediastinal	+	+	+	+	+	+	+	+	+	+	10
Pigmentation	2	1	2	3							4 2.0
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	10
Hyperplasia, Histiocytic	1	1	1	1			1			1	6 1.0
Spleen	+	+	+	+	+	+	+	+	+	+	10
Pigmentation	2	3	1	3			2			1	6 2.0
Thymus	+	+	+	+	+	+	+	+	+	+	10

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	WISTAR HAN RATS MALE	0	0	0	0	0	0	0	0	0
100 ppm	9	9	9	9	9	9	9	9	9	9
ANIMAL ID	3	3	3	3	3	3	3	3	3	3
	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0
* TOTALS										

INTEGUMENTARY SYSTEM

Mammary Gland Hyperplasia	+	M	M	M	M	+	M	M	+	M	3	1 1.0
Skin Inflammation, Acute	+	+	+	+	+	+	+	+	+	+	10	1 1.0

MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	10
------	---	---	---	---	---	---	---	---	---	---	-----------

NERVOUS SYSTEM

Brain	+	+	+	+	+	+	+	+	+	+	10
-------	---	---	---	---	---	---	---	---	---	---	-----------

RESPIRATORY SYSTEM

Larynx	+	+	+	+	+	+	+	+	+	+	10		
Inflammation, Chronic Active			1	1					1	1		4 1.0	
Respiratory Epithelium, Hyperplasia		2		2	1							3 1.7	
Respiratory Epithelium, Metaplasia, Squamous	3	3	3	3	3	3	3	3	3	3	10	3.0	
Respiratory Epithelium, Necrosis		1							1		2	1.0	
Respiratory Epithelium, Regeneration		1					1				2	1.0	
Respiratory Epithelium, Ulcer										1	1	1.0	
Squamous Epithelium, Hyperplasia	1	1	1		1		1	1		2	7	1.1	
Lung	+	+	+	+	+	+	+	+	+	+	10		
Fibrosis, Focal			1									1 1.0	
Infiltration Cellular, Histiocyte		1	1	1	2	2	2	1	2	2	9	1.6	
Inflammation, Eosinophil	1	2	3	3	1	2	1	3	1	3	10	2.0	

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0			
	9	9	9	9	9	9	9	9	9	9			
WISTAR HAN RATS MALE	3	3	3	3	3	3	3	3	3	3			
100 ppm	0	0	0	0	0	0	0	0	0	0			
	1	1	1	1	1	1	1	1	1	1			
ANIMAL ID	0	0	0	0	0	0	0	0	0	0			
	1	2	3	4	5	6	7	8	9	0			
											* TOTALS		
Alveolus, Infiltration Cellular, Polymorphonuclear								1				1	1.0
Bronchiole, Epithelium, Hyperplasia	1	2	3	2	3	2	2	3	2	2		10	2.2
Bronchus, Epithelium, Hyperplasia	2	1	2	1			2					5	1.6
Bronchus, Epithelium, Metaplasia, Squamous	1				2		1					3	1.3
Bronchus, Epithelium, Regeneration	4	3	4	3	2	2		3	2	2		9	2.8
Bronchus, Epithelium, Goblet Cell, Metaplasia			1									1	1.0
Nose	+	+	+	+	+	+	+	+	+	+		10	
Foreign Body		X										1	
Hyperplasia, Lymphoid	1			1	2	2		2				5	1.6
Inflammation, Suppurative	3	3	3	3	3	3	3	3	3	3		10	3.0
Nasopharyngeal Duct, Foreign Body									X			1	
Olfactory Epithelium, Atrophy	1	1	1	1	1	1	1	1	1	1		10	1.0
Olfactory Epithelium, Degeneration		1		2						2		3	1.7
Olfactory Epithelium, Metaplasia, Respiratory	1	1	1	1	1	1	1	1	1	1		10	1.0
Olfactory Epithelium, Squamous Metaplasia				1						1		2	1.0
Respiratory Epithelium, Hyperplasia	3	3	3	3	3	2	3	3	3	3		10	2.9
Respiratory Epithelium, Metaplasia, Squamous	2	2	2	2	2	2	2	2	2	2		10	2.0
Respiratory Epithelium, Necrosis	3	2	2	2	1	2	3	2	2	2		10	2.1
Respiratory Epithelium, Regeneration	1	2	2	2	1	1	2	1	1	2		10	1.5
Turbinate, Atrophy	2	2	2	2	2	2	2	2	2	2		10	2.0
Trachea	+	+	+	+	+	+	+	+	+	+		10	
Inflammation, Acute			1			1		1				3	1.0
Epithelium, Hyperplasia	3	3	3	3		1		3	1	3		8	2.5
Epithelium, Metaplasia, Squamous			1		2			2				3	1.7
Epithelium, Necrosis	1											1	1.0
Epithelium, Regeneration	2	2	2	3	3	3	4	3	3	3		10	2.8

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST		0	0	0	0	0	0	0	0	0	0	0	0	0	0
WISTAR HAN RATS MALE		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9	9	9	9	9
	100 ppm	3	3	3	3	3	3	3	3	3	3	3	3	3	3
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1	1	1	1	1	1	1
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	1	0
		1	2	3	4	5	6	7	8	9	0				
* TOTALS															

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+	10
Cornea, Inflammation, Acute						2		1		1	3 1.3
Cornea, Neovascularization						1				1	2 1.0
Cornea, Epithelium, Hyperplasia								3			1 3.0
Cornea, Epithelium, Vacuolation						2		3			2 2.5
Retina, Dysplasia									X		1
Harderian Gland	+	+	+	+	+	+	+	+	+	+	10
Concretion	X			X			X			X	4
Hyperplasia									1		1 1.0
Inflammation, Chronic Active						1					1 1.0

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	10
Infiltration Cellular, Mononuclear Cell				1							1 1.0
Nephropathy						1		2			2 1.5
Pelvis, Dilatation							1	1			2 1.0
Pelvis, Inflammation, Chronic Active								1			1 1.0
Pelvis, Transitional Epithelium, Hyperplasia								1			1 1.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	10

*** END OF MALE DATA ***

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	WISTAR HAN RATS FEMALE	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
	3	3	3	3	3	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
Control	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0
* TOTALS										

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	10
Liver	+	+	+	+	+	+	+	+	+	+	10
Infiltration Cellular, Mononuclear Cell	1		1								2 1.0
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	10
--------------	---	---	---	---	---	---	---	---	---	---	-----------

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
WISTAR HAN RATS FEMALE	3	3	3	3	3	3	3	3	3	3	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	
Control	1	1	1	1	1	1	1	1	1	1	
	0	0	0	0	0	0	0	0	0	1	
	1	2	3	4	5	6	7	8	9	0	
											* TOTALS
Heart	+	+	+	+	+	+	+	+	+	+	10
ENDOCRINE SYSTEM											
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
Accessory Adrenal Cortical Nodule			X	X							2
Accessory Adrenal Cortical Nodule, Multifocal Hypertrophy	1									X	1 1.0
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	10
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	10
Parathyroid Gland	M	+	M	+	+	+	+	+	+	+	8
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	10
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	10
GENERAL BODY SYSTEM											
NONE											
GENITAL SYSTEM											
Clitoral Gland	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic Active	1					1		1		1	4 1.0
Duct, Ectasia				3							1 3.0
Ovary	+	+	+	+	+	+	+	+	+	+	10
Cyst						1					1 1.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS FEMALE Control	DAY ON TEST											
	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3		
ANIMAL ID	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0		
	1	1	1	1	1	1	1	1	1	1		
	0	0	0	0	0	0	0	0	0	1		
	1	2	3	4	5	6	7	8	9	0	* TOTALS	
Uterus	+	+	+	+	+	+	+	+	+	+	10	
HEMATOPOIETIC SYSTEM												
Bone Marrow	+	+	+	+	+	+	+	+	+	+	10	
Lymph Node, Bronchial Pigmentation	+	+	+	+	M	+	+	M	+	+	8	2 3.0
Lymph Node, Mandibular Hyperplasia, Plasma Cell	+	+	+	+	+	+	+	+	+	+	10	4 2.0
Lymph Node, Mediastinal Pigmentation	+	+	+	+	+	M	+	+	+	+	9	6 2.0
Lymph Node, Mesenteric Hyperplasia, Histiocytic Pigmentation	+	+	+	+	+	+	+	+	+	+	10	2 1.0 1 1.0
Spleen Pigmentation	+	+	+	+	+	+	+	+	+	+	10	6 2.5
Thymus Cyst Ectopic Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	10	2 1.0 1
INTEGUMENTARY SYSTEM												
Mammary Gland	+	+	+	+	+	+	+	+	+	+	10	

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST		0	0	0	0	0	0	0	0	0	
WISTAR HAN RATS FEMALE		9	9	9	9	9	9	9	9	9	
Control		3	3	3	3	3	3	3	3	3	
ANIMAL ID		0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		1	1	1	1	1	1	1	1	1	
		0	0	0	0	0	0	0	0	1	
		1	2	3	4	5	6	7	8	9	0
* TOTALS											
Skin		+	+	+	+	+	+	+	+	+	10
MUSCULOSKELETAL SYSTEM											
Bone		+	+	+	+	+	+	+	+	+	10
NERVOUS SYSTEM											
Brain		+	+	+	+	+	+	+	+	+	10
Ventricle, Dilatation		2									1 2.0
RESPIRATORY SYSTEM											
Larynx		+	+	+	+	+	+	+	+	+	10
Lung		+	+	+	+	+	+	+	+	+	10
Infiltration Cellular, Histiocyte		1		1	1		1	1	2	1	8 1.1
Inflammation, Eosinophil				1	2		1			1	4 1.3
Nose		+	+	+	+	+	+	+	+	+	10
Olfactory Epithelium, Atrophy								1			1 1.0
Respiratory Epithelium, Hyperplasia		1									1 1.0
Trachea		+	+	+	+	+	+	+	+	+	10
SPECIAL SENSES SYSTEM											
Eye		+	+	+	+	+	+	+	+	+	10
Retina, Pigmentation						2					1 2.0
Harderian Gland		+	+	+	+	+	+	+	+	+	10

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS FEMALE	DAY ON TEST										ANIMAL ID
	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	
Control	0 1 0 1	0 1 0 2	0 1 0 3	0 1 0 4	0 1 0 5	0 1 0 6	0 1 0 7	0 1 0 8	0 1 0 9	0 1 0 0	

*** TOTALS**

Concretion	X		X	X				X			4
Hyperplasia		1				1					2 1.0
Inflammation, Chronic				2							1 2.0

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	10
Renal Tubule, Hyperplasia							1				1 1.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	10

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS FEMALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	
		3	3	3	3	3	3	3	3	3	
6.25 ppm	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		3	3	3	3	3	3	3	3	3	
		0	0	0	0	0	0	0	0	1	
		1	2	3	4	5	6	7	8	9	0
* TOTALS											

ALIMENTARY SYSTEM

Pancreas + 1

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS FEMALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	6.25 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	
		0	0	0	0	0	0	0	0	0	0	0	0	1	0	
		1	2	3	4	5	6	7	8	9	0					
* TOTALS																

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

Larynx	+	+	+	+	+	+	+	+	+	+					10
Lung	+	+	+	+	+	+	+	+	+	+					10
Infiltration Cellular, Histiocyte					1										1 1.0
Inflammation, Eosinophil		1	1			1									3 1.0
Nose	+	+	+	+	+	+	+	+	+	+					10
Olfactory Epithelium, Degeneration				1											1 1.0
Trachea	+	+	+	+	+	+	+	+	+	+					10
Epithelium, Regeneration		1	1							1					3 1.0

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+					10
-----	---	---	---	---	---	---	---	---	---	---	--	--	--	--	-----------

URINARY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS FEMALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.5 ppm	ANIMAL ID	9	9	9	9	9	9	9	9	9	9	9	9	9	9
		3	3	3	3	3	3	3	3	3	3	3	3	3	3
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		5	5	5	5	5	5	5	5	5	5	5	5	5	5
		0	0	0	0	0	0	0	0	0	0	0	0	1	0
		1	2	3	4	5	6	7	8	9	0				
* TOTALS															

ALIMENTARY SYSTEM

NONE

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Ovary	+	1
Cyst	2	1 2.0

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0
	WISTAR HAN RATS FEMALE	0	0	0	0	0	0	0	0	0
12.5 ppm	9	9	9	9	9	9	9	9	9	9
ANIMAL ID	3	3	3	3	3	3	3	3	3	3
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	5	5	5	5	5	5	5	5	5	5
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0
* TOTALS										

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

Larynx	+	+	+	+	+	+	+	+	+	+	10		
Inflammation, Chronic Active	1											1	1.0
Lung	+	+	+	+	+	+	+	+	+	+	10		
Infiltration Cellular, Histiocyte						1			1	1		3	1.0
Inflammation, Eosinophil		1	1		1				1			4	1.0
Alveolar Epithelium, Hyperplasia						2						1	2.0
Perivascular, Infiltration Cellular, Mononuclear Cell		1										1	1.0
Nose	+	+	+	+	+	+	+	+	+	+	10		
Olfactory Epithelium, Accumulation, Hyaline Droplet					1							1	1.0
Olfactory Epithelium, Atrophy						1						1	1.0
Olfactory Epithelium, Metaplasia, Respiratory						1						1	1.0
Trachea	+	+	+	+	+	I	+	+	+	+	9		

SPECIAL SENSES SYSTEM

Eye	+	+	+	+	+	+	+	+	+	+	10		
Bilateral, Retina, Dysplasia	X											1	
Conjunctiva, Inflammation, Acute									1			1	1.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

		0	0	0	0	0	0	0	0	0	
WISTAR HAN RATS FEMALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	
		3	3	3	3	3	3	3	3	3	
12.5 ppm	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		5	5	5	5	5	5	5	5	5	
		0	0	0	0	0	0	0	0	0	1
		1	2	3	4	5	6	7	8	9	0
* TOTALS											
Cornea, Inflammation, Acute		1									1 1.0

URINARY SYSTEM

Kidney	+	1
--------	---	---

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS FEMALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	9	
		3	3	3	3	3	3	3	3	3	3	
25 ppm	ANIMAL ID	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0		
	7	7	7	7	7	7	7	7	7	7		
	0	0	0	0	0	0	0	0	0	1		
		1	2	3	4	5	6	7	8	9	0	* TOTALS

ALIMENTARY SYSTEM

NONE

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WISTAR HAN RATS FEMALE		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	25 ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
		1	2	3	4	5	6	7	8	9	0									
* TOTALS																				

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10			
Inflammation, Chronic Active																						1	1.0
Respiratory Epithelium, Metaplasia, Squamous			1					1	1													4	1.0
Respiratory Epithelium, Ulcer																						1	1.0
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10			
Infiltration Cellular, Histiocyte				1						1												4	1.0
Inflammation, Eosinophil				1		1				1												3	1.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10			
Hyperplasia, Lymphoid										1												1	1.0
Olfactory Epithelium, Atrophy																						1	1.0
Olfactory Epithelium, Metaplasia, Respiratory																						1	1.0
Respiratory Epithelium, Hyperplasia																						3	1.0
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	10			
Epithelium, Hyperplasia																						1	2.0

SPECIAL SENSES SYSTEM

Eye	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	9		
-----	---	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--

URINARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

		0	0	0	0	0	0	0	0	0	
WISTAR HAN RATS FEMALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	
		9	9	9	9	9	9	9	9	9	
		3	3	3	3	3	3	3	3	3	
25 ppm	ANIMAL ID	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	
		0	0	0	0	0	0	0	0	0	1
		1	2	3	4	5	6	7	8	9	0
* TOTALS											

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS FEMALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50 ppm		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	2	3	4	5	6	7	8	9	0	1	0	0	0	0	0	0	0
* TOTALS																			

ALIMENTARY SYSTEM

Mesentery + 1
 Fat, Necrosis 2 1 2.0

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

NONE

INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS FEMALE	DAY ON TEST										* TOTALS
	0	0	0	0	0	0	0	0	0	0	
50 ppm	9	9	9	9	9	9	9	9	9	9	
	3	3	3	3	3	3	3	3	3	3	
	ANIMAL ID										
	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0		
	9	9	9	9	9	9	9	9	9		
	0	0	0	0	0	0	0	0	1		
	1	2	3	4	5	6	7	8	9	0	

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

Larynx	+	+	+	+	+	+	+	+	+	10	
Respiratory Epithelium, Hyperplasia								1	1	2	1.0
Respiratory Epithelium, Metaplasia, Squamous	2	1	1	1	2	2	1	1	2	10	1.5
Lung	+	+	+	+	+	+	+	+	+	10	
Infiltration Cellular, Histiocyte		1	1		1	1	1			6	1.0
Inflammation, Eosinophil	1		1	1			1	1		5	1.0
Metaplasia, Osseous						1			1	2	1.0
Nose	+	+	+	+	+	+	+	+	+	10	
Inflammation, Suppurative	2	2	2	2	2	2	2	1	2	10	1.9
Olfactory Epithelium, Atrophy	1	1	1	1	1	1	1	1	1	10	1.0
Olfactory Epithelium, Degeneration	1					1		1	2	4	1.3
Olfactory Epithelium, Metaplasia, Respiratory	1	1	1		1	1		1	1	8	1.0
Respiratory Epithelium, Hyperplasia	2	2	2	2	2	2	2	2	2	10	2.0
Respiratory Epithelium, Metaplasia, Squamous	1	1	2	1	1	1	1	1	1	10	1.1
Respiratory Epithelium, Necrosis									1	1	1.0
Respiratory Epithelium, Regeneration					1	1			1	3	1.0
Turbinate, Atrophy					1				1	2	1.0
Trachea	+	+	+	+	+	+	+	+	+	10	
Epithelium, Regeneration	2	2	1	3	1				1	7	1.6

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

		0	0	0	0	0	0	0	0	0	0
WISTAR HAN RATS FEMALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9
		3	3	3	3	3	3	3	3	3	3
	50 ppm										
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0
		9	9	9	9	9	9	9	9	9	9
		0	0	0	0	0	0	0	0	0	1
		1	2	3	4	5	6	7	8	9	0
* TOTALS											

SPECIAL SENSES SYSTEM

Eye	+	+	+	I	+	+	+	+	+	+	9
Anterior Chamber, Inflammation, Acute		1				1	1				3 1.0
Ciliary Body, Inflammation, Acute		1				2	1	1	1		5 1.2
Conjunctiva, Inflammation, Acute			1								1 1.0
Cornea, Inflammation, Acute		1				2	1	1	1		5 1.2
Cornea, Epithelium, Vacuolation						2					1 2.0
Fat, Retrobulbar, Inflammation, Acute			1								1 1.0
Retina, Dysplasia									1		1 1.0
Retina, Pigmentation								1			1 1.0
Sclera, Inflammation, Acute						2		1			2 1.5

URINARY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS FEMALE	DAY ON TEST										* TOTALS
	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	
100 ppm	0 1 1 0 1	0 1 1 0 2	0 1 1 0 3	0 1 1 0 4	0 1 1 0 5	0 1 1 0 6	0 1 1 0 7	0 1 1 0 8	0 1 1 0 9	0 1 1 0 0	

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	10
Liver	+	+	+	+	+	+	+	+	+	+	10
Infiltration Cellular, Mixed Cell						1	1				2 1.0
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Parotid Gland, Atrophy							1				1 1.0
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Epithelium, Hyperplasia				1							1 1.0
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS FEMALE 100 ppm	DAY ON TEST										ANIMAL ID			
	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3				
	0 1 1 0 1	0 1 1 0 2	0 1 1 0 3	0 1 1 0 4	0 1 1 0 5	0 1 1 0 6	0 1 1 0 7	0 1 1 0 8	0 1 1 0 9	0 1 1 0 0				
	* TOTALS													
Blood Vessel	+	+	+	+	+	+	+	+	+	+			10	
Heart	+	+	+	+	+	+	+	+	+	+			10	
Cardiomyopathy									1					1 1.0
ENDOCRINE SYSTEM														
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+			10	
Accessory Adrenal Cortical Nodule			X											1
Adrenal Medulla	+	+	+	+	+	+	+	+	+	M			9	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+			10	
Parathyroid Gland	+	+	+	+	M	+	+	+	+	+			9	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+			10	
Cyst						1								1 1.0
Thyroid Gland	+	+	+	+	+	+	+	+	+	+			10	
Ultimobranchial Cyst		X	X			X				X				4
GENERAL BODY SYSTEM														
NONE														
GENITAL SYSTEM														
Clitoral Gland	+	+	+	+	+	+	+	+	+	+			10	
Inflammation, Chronic Active		1		1		1	1	1						5 1.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS FEMALE 100 ppm	DAY ON TEST										* TOTALS
	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	0 9 3	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	
	1	1	1	1	1	1	1	1	1	1	
	0	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0	
Ovary	+	+	+	+	+	+	+	+	+	+	10
Uterus	+	+	+	+	+	+	+	+	+	+	10
HEMATOPOIETIC SYSTEM											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node, Bronchial Hyperplasia, Plasma Cell Pigmentation	+	+	+	+	+	+	+	+	+	+	10
						2					1 2.0
		2				2					2 2.0
Lymph Node, Mandibular Hyperplasia, Plasma Cell	+	+	+	+	+	+	+	+	+	+	10
				2		1					2 1.5
Lymph Node, Mediastinal Hyperplasia, Plasma Cell Pigmentation	+	+	+	+	+	+	+	+	+	I	9
						2	1				2 1.5
			3	1		2	3				4 2.3
Lymph Node, Mesenteric Hyperplasia, Histiocytic	+	+	+	+	+	+	+	+	+	+	10
				1		1	1				3 1.0
Spleen Pigmentation	+	+	+	+	+	+	+	+	+	+	10
		1	1	3		3	3			2	6 2.2
Thymus Cyst Epithelial Cell, Hyperplasia	+	+	+	+	+	+	+	+	+	+	10
							X				1
										1	1 1.0

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	ANIMAL ID		
	0	0	0	0	0	0	0	0	0	0			
WISTAR HAN RATS FEMALE	9	9	9	9	9	9	9	9	9	9			
100 ppm	3	3	3	3	3	3	3	3	3	3			
	0	0	0	0	0	0	0	0	0	0			
	1	1	1	1	1	1	1	1	1	1			
	1	1	1	1	1	1	1	1	1	1			
	0	0	0	0	0	0	0	0	0	1			
	1	2	3	4	5	6	7	8	9	0			* TOTALS
Mammary Gland	+	+	+	+	+	+	+	+	+	+			10
Skin	+	+	+	+	+	+	+	+	+	+			10
MUSCULOSKELETAL SYSTEM													
Bone	+	+	+	+	+	+	+	+	+	+			10
NERVOUS SYSTEM													
Brain	+	+	+	+	+	+	+	+	+	+			10
RESPIRATORY SYSTEM													
Larynx	+	+	+	+	+	+	+	+	+	+			10
Inflammation, Chronic Active			1	1	1	1	1	3					5 1.4
Respiratory Epithelium, Hyperplasia				1									1 1.0
Respiratory Epithelium, Metaplasia, Squamous	3	3	3	3	3	3	3	3	3	3			10 3.0
Respiratory Epithelium, Necrosis										1			1 1.0
Respiratory Epithelium, Regeneration							1						1 1.0
Squamous Epithelium, Hyperplasia	1		1	1	1	1	1	1	1	1			9 1.0
Squamous Epithelium, Necrosis	1		1			1	2		1				5 1.2
Squamous Epithelium, Ulcer				2	3		2	2					4 2.3
Lung	+	+	+	+	+	+	+	+	+	+			10
Fibrosis, Focal	1					X							2 1.0
Infiltration Cellular, Histiocyte	2		2	2	2	2	1	2	1	2			9 1.8
Inflammation, Eosinophil	2	1	2	1	2	1	2	3	2	1			10 1.7
Mineralization, Focal							1						1 1.0
Alveolus, Infiltration Cellular, Polymorphonuclear								1	1				2 1.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

WISTAR HAN RATS FEMALE 100 ppm	DAY ON TEST										ANIMAL ID			
	0	0	0	0	0	0	0	0	0	0				
	0	0	0	0	0	0	0	0	0	0	0			
	9	9	9	9	9	9	9	9	9	9	9			
	3	3	3	3	3	3	3	3	3	3	3			
	0	0	0	0	0	0	0	0	0	0	0			
	1	1	1	1	1	1	1	1	1	1	1			
	1	1	1	1	1	1	1	1	1	1	1			
	0	0	0	0	0	0	0	0	0	0	1			
	1	2	3	4	5	6	7	8	9	0				* TOTALS
Bronchiole, Epithelium, Hyperplasia	1		2			1	1	1	1	1				7 1.1
Bronchus, Epithelium, Hyperplasia	2					1	2	1						4 1.5
Bronchus, Epithelium, Regeneration	2	3	2	1	2		1	1	2					8 1.8
Bronchus, Epithelium, Goblet Cell, Metaplasia	3		3						1					3 2.3
Nose	+	+	+	+	+	+	+	+	+	+				10
Hyperplasia, Lymphoid					1		1			1				3 1.0
Inflammation, Suppurative	3	3	3	3	3	3	3	3	3	3				10 3.0
Olfactory Epithelium, Atrophy	1	1	1	1	1	1		1	1	1				9 1.0
Olfactory Epithelium, Degeneration		1		2	1	2				2				5 1.6
Olfactory Epithelium, Metaplasia, Respiratory	1		1	1	1	1	1	1	1	3				9 1.2
Respiratory Epithelium, Hyperplasia	3	3	3	3	3	3	3	3	3	3				10 3.0
Respiratory Epithelium, Metaplasia, Squamous	2	2	2	2	2	2	2	2	2	2				10 2.0
Respiratory Epithelium, Necrosis	2	2	2	2	2	2	2	2	3	2				10 2.1
Respiratory Epithelium, Regeneration	2	1	1	2	1	2	3	2	3	2				10 1.9
Respiratory Epithelium, Ulcer								1						1 1.0
Turbinate, Atrophy	2	2	2	2	2	2	2	2	2					9 2.0
Trachea	+	+	+	+	+	+	+	+	+	+				10
Inflammation, Suppurative									1					1 1.0
Inflammation, Acute			1					1						2 1.0
Epithelium, Hyperplasia			3		3	3				3				4 3.0
Epithelium, Metaplasia, Squamous			1	1										2 1.0
Epithelium, Necrosis		1				1								2 1.0
Epithelium, Regeneration	3	3	3	3	3	3	3	3	3	3				10 3.0
SPECIAL SENSES SYSTEM														
Eye	+	+	+	+	+	+	+	+	+	+				10
Ciliary Body, Inflammation, Acute	1					1								2 1.0
Cornea, Inflammation, Acute				1	1	1		1	3	1				6 1.3

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 08010 - 01
 Test Type: 90-DAY
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: RATS/Wistar Han

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 2,3-Pentanedione
 CAS Number: 600-14-6

Date Report Requested: 04/29/2016
 Time Report Requested: 09:07:39
 First Dose M/F: 09/13/10 / 09/14/10
 Lab: BNW

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
	9	9	9	9	9	9	9	9	9	9	
WISTAR HAN RATS FEMALE	3	3	3	3	3	3	3	3	3	3	
100 ppm											
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	
	1	1	1	1	1	1	1	1	1	1	
	0	0	0	0	0	0	0	0	0	1	
	1	2	3	4	5	6	7	8	9	0	
* TOTALS											
Cornea, Necrosis										1	1 1.0
Cornea, Neovascularization										1	1 1.0
Cornea, Ulcer									2		1 2.0
Cornea, Epithelium, Hyperplasia									1		1 1.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	10
Concretion		X	X			X					3
Hyperplasia	1										1 1.0
Inflammation, Chronic Active		1							1		2 1.0
URINARY SYSTEM											
Kidney	+	+	+	+	+	+	+	+	+	+	10
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	10

*** END OF REPORT ***

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked