

Experiment Number: 20725 - 01

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 01/12/2017

Test Type: 90-DAY

2,3-Butanedione

Time Report Requested: 15:54:18

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: 431-03-8

First Dose M/F: 07/28/08 / 07/29/08

Species/Strain: RATS/Wistar Han

Lab: BNW

F1_Rev.2_RE

NTP Study Number: C20725
Lock Date: 02/27/2009
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

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Species/Strain: RATS/Wistar Han

Lab: BNW

Wistar Han RATS MALE	CONTROL	6.25 ppm	12.5 ppm	25 ppm	50 ppm	100 ppm
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Disposition Summary

Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Natural Death						2
Survivors						
Terminal Sacrifice	10	10	10	10	10	8
Animals Examined Microscopically	10	10	10	10	10	10

ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(0)	(8)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(0)	(8)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(0)	(8)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(0)	(9)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(0)	(8)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(0)	(8)
Liver	(10)	(0)	(1)	(2)	(0)	(10)
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(8)

CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)

ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(7)

a - Number of animals examined microscopically at site and number of animals with lesion

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Wistar Han RATS MALE	CONTROL	6.25 ppm	12.5 ppm	25 ppm	50 ppm	100 ppm
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Epididymis	(10)	(0)	(0)	(0)	(0)	(10)
Preputial Gland	(10)	(0)	(0)	(0)	(0)	(9)
Prostate	(10)	(0)	(0)	(0)	(0)	(10)
Seminal Vesicle	(10)	(0)	(0)	(0)	(0)	(10)
Testes	(10)	(0)	(0)	(0)	(0)	(10)

HEMATOPOIETIC SYSTEM

Bone Marrow	(10)	(0)	(0)	(0)	(0)	(9)
Lymph Node, Bronchial	(8)	(0)	(0)	(0)	(0)	(9)
Lymph Node, Mandibular	(10)	(0)	(0)	(0)	(1)	(10)
Lymph Node, Mediastinal	(10)	(0)	(0)	(0)	(0)	(9)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(0)	(0)	(10)

INTEGUMENTARY SYSTEM

Mammary Gland	(2)	(0)	(0)	(0)	(0)	(3)
Skin	(10)	(0)	(0)	(0)	(1)	(10)

MUSCULOSKELETAL SYSTEM

Bone	(10)	(0)	(0)	(0)	(0)	(10)
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a - Number of animals examined microscopically at site and number of animals with lesion

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P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

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Species/Strain: RATS/Wistar Han

Lab: BNW

Wistar Han RATS MALE	CONTROL	6.25 ppm	12.5 ppm	25 ppm	50 ppm	100 ppm
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NERVOUS SYSTEM						
Brain	(10)	(0)	(0)	(0)	(0)	(10)

RESPIRATORY SYSTEM						
Larynx	(10)	(10)	(10)	(10)	(10)	(10)
Lung	(10)	(10)	(10)	(10)	(10)	(10)
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Trachea	(10)	(10)	(10)	(10)	(10)	(10)

SPECIAL SENSES SYSTEM						
Eye	(10)	(0)	(0)	(0)	(10)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)

URINARY SYSTEM						
Kidney	(10)	(0)	(0)	(2)	(0)	(10)
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

a - Number of animals examined microscopically at site and number of animals with lesion

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Species/Strain: RATS/Wistar Han

Lab: BNW

Wistar Han RATS MALE

CONTROL

6.25 ppm

12.5 ppm

25 ppm

50 ppm

100 ppm

Tumor Summary for Males

Total Animals with Primary Neoplasms (b)

Total Primary Neoplasms

Total Animals with Benign Neoplasms

Total Benign Neoplasms

Total Animals with Malignant Neoplasms

Total Malignant Neoplasms

Total Animals with Metastatic Neoplasms

Total Metastatic Neoplasms

Total Animals with Malignant Neoplasms

Uncertain Primary Site

Total Animals with Neoplasms Uncertain-

Benign or Malignant

Total Uncertain Neoplasms

*** END OF MALE ***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Test Type: 90-DAY

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Route: RESPIRATORY EXPOSURE WHOLE BODY

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First Dose M/F: 07/28/08 / 07/29/08

Species/Strain: RATS/Wistar Han

Lab: BNW

Wistar Han RATS FEMALE	CONTROL	6.25 ppm	12.5 ppm	25 ppm	50 ppm	100 ppm
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Disposition Summary

Animals Initially In Study	10	10	10	10	10	10
Early Deaths						
Survivors						
Terminal Sacrifice	10	10	10	10	10	10
Animals Examined Microscopically	10	10	10	10	10	10

ALIMENTARY SYSTEM

Esophagus	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Cecum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Colon	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Large, Rectum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Duodenum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Ileum	(10)	(0)	(0)	(0)	(0)	(10)
Intestine Small, Jejunum	(10)	(0)	(0)	(0)	(0)	(10)
Liver	(10)	(0)	(0)	(0)	(0)	(10)
Pancreas	(10)	(0)	(0)	(0)	(0)	(10)
Salivary Glands	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Forestomach	(10)	(0)	(0)	(0)	(0)	(10)
Stomach, Glandular	(10)	(0)	(0)	(0)	(0)	(10)

CARDIOVASCULAR SYSTEM

Blood Vessel	(10)	(0)	(0)	(0)	(0)	(10)
Heart	(10)	(0)	(0)	(0)	(0)	(10)

ENDOCRINE SYSTEM

Adrenal Cortex	(10)	(0)	(0)	(0)	(0)	(10)
Adrenal Medulla	(10)	(0)	(0)	(0)	(0)	(10)
Islets, Pancreatic	(10)	(0)	(0)	(0)	(0)	(10)
Parathyroid Gland	(10)	(0)	(0)	(0)	(0)	(7)
Pituitary Gland	(10)	(0)	(0)	(0)	(0)	(10)

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Lab: BNW

Wistar Han RATS FEMALE	CONTROL	6.25 ppm	12.5 ppm	25 ppm	50 ppm	100 ppm
Thyroid Gland	(10)	(0)	(0)	(0)	(0)	(10)
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Clitoral Gland	(10)	(0)	(0)	(0)	(1)	(10)
Ovary	(10)	(0)	(0)	(0)	(0)	(10)
Uterus	(10)	(0)	(0)	(0)	(0)	(10)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(10)	(0)	(0)	(0)	(0)	(10)
Lymph Node	(0)	(0)	(0)	(0)	(0)	(1)
Lymph Node, Bronchial	(10)	(0)	(0)	(0)	(0)	(8)
Lymph Node, Mandibular	(10)	(0)	(0)	(1)	(0)	(9)
Lymph Node, Mediastinal	(10)	(0)	(0)	(0)	(0)	(9)
Lymph Node, Mesenteric	(10)	(0)	(0)	(0)	(0)	(10)
Spleen	(10)	(0)	(0)	(0)	(0)	(10)
Thymus	(10)	(0)	(0)	(1)	(0)	(9)
INTEGUMENTARY SYSTEM						
Mammary Gland	(10)	(0)	(0)	(0)	(0)	(10)
Skin	(10)	(0)	(0)	(0)	(0)	(10)
MUSCULOSKELETAL SYSTEM						
Bone	(10)	(0)	(0)	(0)	(0)	(10)

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NERVOUS SYSTEM						
Brain	(10)	(0)	(0)	(0)	(0)	(10)
RESPIRATORY SYSTEM						
Larynx	(10)	(10)	(10)	(10)	(10)	(10)
Lung	(10)	(10)	(10)	(10)	(10)	(10)
Nose	(10)	(10)	(10)	(10)	(10)	(10)
Trachea	(10)	(10)	(10)	(10)	(10)	(10)
SPECIAL SENSES SYSTEM						
Eye	(10)	(0)	(0)	(0)	(10)	(10)
Harderian Gland	(10)	(0)	(0)	(0)	(0)	(10)
URINARY SYSTEM						
Kidney	(10)	(0)	(0)	(0)	(0)	(10)
Urinary Bladder	(10)	(0)	(0)	(0)	(0)	(10)

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Wistar Han RATS FEMALE

CONTROL

6.25 ppm

12.5 ppm

25 ppm

50 ppm

100 ppm

Tumor Summary for Females

Total Animals with Primary Neoplasms (b)

Total Primary Neoplasms

Total Animals with Benign Neoplasms

Total Benign Neoplasms

Total Animals with Malignant Neoplasms

Total Malignant Neoplasms

Total Animals with Metastatic Neoplasms

Total Metastatic Neoplasms

Total Animals with Malignant Neoplasms

Uncertain Primary Site

Total Animals with Neoplasms Uncertain-

Benign or Malignant

Total Uncertain Neoplasms

*** END OF REPORT ***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors