

Experiment Number: 20536 - 02
Test Type: 39-WEEK
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Abrasive blasting agents (specular hematite)
CAS Number: HEMATITESPEC

Date Report Requested: 09/13/2012
Time Report Requested: 10:28:08
First Dose M/F: 07/27/09 / NA
Lab: BNW

F1_Rev.1_26 Wk. SSAC

NTP Study Number: C20536
Lock Date: 07/19/2010
Cage Range: ALL
Date Range: ALL
Reasons For Removal: 25017 SSAC
Removal Date Range: 22-Jan-2010 - 22-Jan-2010
Treatment Groups: Include ALL
Study Gender: Male
TDMSE Version: 2.6.0.0_007
PWG Approval Date: 02/08/2012

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| | | | | | | | | | | |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|--|
| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| HARLAN SPRAGUE DAWLEY RATS | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| MALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 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 | 2 | 3 | 4 | 4 | 4 | 5 | 5 | |
| | | 7 | 9 | 9 | 3 | 4 | 7 | 1 | 5 | |
| * TOTALS | | | | | | | | | | |

ALIMENTARY SYSTEM

NONE

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

| | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|----------|
| Lymph Node, Bronchial | + | + | + | + | + | + | I | + | 7 |
| Lymph Node, Mediastinal | + | + | + | + | + | + | + | + | 8 |

INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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

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| | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|--|
| HARLAN SPRAGUE DAWLEY RATS MALE Control | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | | 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 | 2 | 3 | 4 | 4 | 4 | 5 | 5 | |
| | | 7 | 9 | 9 | 3 | 4 | 7 | 1 | 5 | |
| * TOTALS | | | | | | | | | | |

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

| | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|----------|
| Larynx | + | + | + | + | + | + | + | + | 8 |
| Lung | + | + | + | + | + | + | + | + | 8 |
| Nose | + | + | + | + | + | + | + | + | 8 |
| Trachea | + | + | + | + | + | + | + | + | 8 |

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

NONE

SYSTEMIC LESIONS

| | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|----------|
| Multiple Organ | + | + | + | + | + | + | + | + | 8 |
|----------------|---|---|---|---|---|---|---|---|----------|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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

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 First Dose M/F: 07/27/09 / NA
 Lab: BNW

| | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|--|
| HARLAN SPRAGUE DAWLEY RATS MALE 15 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 2 | 3 | 4 | 4 | 4 | 5 | 5 | |
| | | 7 | 9 | 9 | 3 | 4 | 7 | 1 | 5 | |
| * TOTALS | | | | | | | | | | |

ALIMENTARY SYSTEM

Liver + 1

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

Lymph Node, Bronchial + + + + M M + M 5

Lymph Node, Mediastinal + + M + + + + + 7

INTEGUMENTARY SYSTEM

Skin + 1

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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

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 First Dose M/F: 07/27/09 / NA
 Lab: BNW

| | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|----------|
| HARLAN SPRAGUE DAWLEY RATS MALE 15 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | | 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 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 2 | 3 | 4 | 4 | 4 | 5 | 5 | |
| | | 7 | 9 | 9 | 3 | 4 | 7 | 1 | 5 | * TOTALS |

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

| | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | 8 |
| Lung | + | + | + | + | + | + | + | + | 8 |
| Nose | + | + | + | + | + | + | + | + | 8 |
| Trachea | + | + | + | + | + | + | + | + | 8 |

SPECIAL SENSES SYSTEM

| | | |
|----------------|---|---|
| Lacrimal Gland | + | 1 |
|----------------|---|---|

URINARY SYSTEM

NONE

SYSTEMIC LESIONS

| | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | 8 |
|----------------|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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 First Dose M/F: 07/27/09 / NA
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|--|-----------|---|---|---|---|---|---|---|---|-----------------|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | HARLAN SPRAGUE DAWLEY RATS MALE 30 mg/m3 | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | 0 | 2 | 3 | 4 | 4 | 4 | 4 | 5 | | | 0 | 2 | 3 | 4 | 4 | 5 | 5 | 5 | |
| | 7 | 9 | 9 | 3 | 4 | 7 | 1 | 5 | | | | | | | | | | | * TOTALS |

ALIMENTARY SYSTEM

Intestine Small, Ileum + 1

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

Lymph Node, Bronchial + + + + + | + + 7

Lymph Node, Mediastinal + + + + + + + + 8

INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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 First Dose M/F: 07/27/09 / NA
 Lab: BNW

| | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|----------|
| HARLAN SPRAGUE DAWLEY RATS MALE 30 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | | 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 | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 0 | 2 | 3 | 4 | 4 | 4 | 5 | 5 | |
| | | 7 | 9 | 9 | 3 | 4 | 7 | 1 | 5 | * TOTALS |

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

| | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | 8 |
| Lung | + | + | + | + | + | + | + | + | 8 |
| Alveolar/Bronchiolar Adenoma | | | | | | | X | | 1 |
| Nose | + | + | + | + | + | + | + | + | 8 |
| Trachea | + | + | + | + | + | + | + | + | 8 |

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

NONE

SYSTEMIC LESIONS

| | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | 8 |
|----------------|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
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 X .. Lesion present
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 Lab: BNW

| | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|--|-----------|---|---|---|---|---|---|---|-----------------|--|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | HARLAN SPRAGUE DAWLEY RATS MALE 60 mg/m3 | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | 2 | 3 | 4 | 4 | 4 | 5 | 5 | |
| | | | | | | | | | | | 7 | 9 | 9 | 3 | 4 | 7 | 1 | 5 | |
| | | | | | | | | | | | | | | | | | | * TOTALS | |

ALIMENTARY SYSTEM

Intestine Small, Ileum

+

1

CARDIOVASCULAR SYSTEM

NONE

ENDOCRINE SYSTEM

NONE

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

NONE

HEMATOPOIETIC SYSTEM

Lymph Node, Bronchial

+ + + M + + + +

7

Lymph Node, Mediastinal

+ + + + + + + +

8

INTEGUMENTARY SYSTEM

NONE

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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 Lab: BNW

| | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|----------|
| HARLAN SPRAGUE DAWLEY RATS MALE 60 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | | 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 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 0 | 2 | 3 | 4 | 4 | 4 | 5 | 5 | |
| | | 7 | 9 | 9 | 3 | 4 | 7 | 1 | 5 | * TOTALS |

NONE

NERVOUS SYSTEM

NONE

RESPIRATORY SYSTEM

| | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | 8 |
| Lung | + | + | + | + | + | + | + | + | 8 |
| Nose | + | + | + | + | + | + | + | + | 8 |
| Trachea | + | + | + | + | + | + | + | + | 8 |

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

NONE

SYSTEMIC LESIONS

| | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | 8 |
|----------------|---|---|---|---|---|---|---|---|---|

*** END OF REPORT ***

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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