

**Experiment Number:** 20724 - 01  
**Test Type:** 14-DAY  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** RATS/Wistar Han

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
Acetoin  
**CAS Number:** 513-86-0

**Date Report Requested:** 05/19/2016  
**Time Report Requested:** 10:29:38  
**First Dose M/F:** 10/27/08 / 10/27/08  
**Lab:** BNW

**NTP Study Number:** C20724  
**Lock Date:** 03/04/2010  
**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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|                             |                |   |   |   |   |   |                 |
|-----------------------------|----------------|---|---|---|---|---|-----------------|
| <b>WISTAR HAN RATS MALE</b> | DAY ON TEST    | 0 | 0 | 0 | 0 | 0 |                 |
|                             |                | 0 | 0 | 0 | 0 | 0 |                 |
|                             |                | 1 | 1 | 1 | 1 | 1 |                 |
|                             |                | 7 | 7 | 7 | 7 | 7 |                 |
|                             | <b>Control</b> |   |   |   |   |   |                 |
|                             | ANIMAL ID      | 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 |                 |
|                             |                |   |   |   |   |   | <b>* TOTALS</b> |

**ALIMENTARY SYSTEM**

NONE

**CARDIOVASCULAR SYSTEM**

NONE

**ENDOCRINE SYSTEM**

NONE

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

NONE

**HEMATOPOIETIC SYSTEM**

|                       |   |   |   |   |   |          |
|-----------------------|---|---|---|---|---|----------|
| Lymph Node, Bronchial | + | + | + | + | + | <b>5</b> |
|-----------------------|---|---|---|---|---|----------|

|                         |   |   |   |   |   |          |
|-------------------------|---|---|---|---|---|----------|
| Lymph Node, Mediastinal | + | + | + | + | + | <b>5</b> |
|-------------------------|---|---|---|---|---|----------|

**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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|                             |             | 0 | 0 | 0 | 0 | 0 |                 |
|-----------------------------|-------------|---|---|---|---|---|-----------------|
| <b>WISTAR HAN RATS MALE</b> | DAY ON TEST | 0 | 0 | 0 | 0 | 0 |                 |
|                             |             | 0 | 0 | 0 | 0 | 0 |                 |
|                             |             | 1 | 1 | 1 | 1 | 1 |                 |
|                             |             | 7 | 7 | 7 | 7 | 7 |                 |
| <b>Control</b>              | 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 |                 |
|                             |             | 1 | 2 | 3 | 4 | 5 |                 |
|                             |             |   |   |   |   |   | <b>* TOTALS</b> |

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

|         |   |   |   |   |   |  |          |
|---------|---|---|---|---|---|--|----------|
| Larynx  | + | + | + | + | + |  | <b>5</b> |
| Lung    | + | + | + | + | + |  | <b>5</b> |
| Nose    | + | + | + | + | + |  | <b>5</b> |
| Trachea | + | + | + | + | + |  | <b>5</b> |

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

**SYSTEMIC LESIONS**

|                |   |   |   |   |   |  |          |
|----------------|---|---|---|---|---|--|----------|
| Multiple Organ | + | + | + | + | + |  | <b>5</b> |
|----------------|---|---|---|---|---|--|----------|

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

M .. Missing tissue  
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Lab: BNW

DAY ON TEST

WISTAR HAN RATS MALE  
6.25 PPM

ANIMAL ID

\* 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 tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

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Lab: BNW

DAY ON TEST

WISTAR HAN RATS MALE  
6.25 PPM

ANIMAL ID

\* TOTALS

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

**SYSTEMIC LESIONS**

Multiple Organ

0

\* .. 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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Lab: BNW

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DAY ON TEST

**WISTAR HAN RATS MALE**  
**25 PPM**

ANIMAL ID

---

**\* 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 tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

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

DAY ON TEST

WISTAR HAN RATS MALE  
25 PPM

ANIMAL ID

\* TOTALS

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

**SYSTEMIC LESIONS**

Multiple Organ

0

\* .. 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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DAY ON TEST

WISTAR HAN RATS MALE  
100 PPM

ANIMAL ID

\* 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 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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Lab: BNW

DAY ON TEST

WISTAR HAN RATS MALE  
100 PPM

ANIMAL ID

\* TOTALS

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

NONE

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

**SYSTEMIC LESIONS**

Multiple Organ

0

\* .. 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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DAY ON TEST

**WISTAR HAN RATS MALE**  
**400 PPM**

ANIMAL ID

---

**\* 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 tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

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

Experiment Number: 20724 - 01  
Test Type: 14-DAY  
Route: RESPIRATORY EXPOSURE WHOLE BODY  
Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Acetoin  
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Date Report Requested: 05/19/2016  
Time Report Requested: 10:29:38  
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Lab: BNW

---

|                              | DAY ON TEST |                 |
|------------------------------|-------------|-----------------|
| <b>WISTAR HAN RATS MALE</b>  |             |                 |
| <b>400 PPM</b>               |             |                 |
|                              | ANIMAL ID   |                 |
|                              |             | <b>* TOTALS</b> |
| <hr/>                        |             |                 |
| <b>NERVOUS SYSTEM</b>        |             |                 |
| NONE                         |             |                 |
| <hr/>                        |             |                 |
| <b>RESPIRATORY SYSTEM</b>    |             |                 |
| NONE                         |             |                 |
| <hr/>                        |             |                 |
| <b>SPECIAL SENSES SYSTEM</b> |             |                 |
| NONE                         |             |                 |
| <hr/>                        |             |                 |
| <b>URINARY SYSTEM</b>        |             |                 |
| NONE                         |             |                 |
| <hr/>                        |             |                 |
| <b>SYSTEMIC LESIONS</b>      |             |                 |
| Multiple Organ               |             | <b>0</b>        |

---

\* .. 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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 Lab: BNW

|                             |             |   |   |   |   |   |                 |
|-----------------------------|-------------|---|---|---|---|---|-----------------|
| <b>WISTAR HAN RATS MALE</b> | DAY ON TEST | 0 | 0 | 0 | 0 | 0 |                 |
|                             |             | 0 | 0 | 0 | 0 | 0 |                 |
|                             |             | 1 | 1 | 1 | 1 | 1 |                 |
|                             |             | 7 | 7 | 7 | 7 | 7 |                 |
|                             |             |   |   |   |   |   |                 |
| <b>800 PPM</b>              | ANIMAL ID   | 0 | 0 | 0 | 0 | 0 |                 |
|                             |             | 1 | 1 | 1 | 1 | 1 |                 |
|                             |             | 0 | 0 | 0 | 0 | 0 |                 |
|                             |             | 0 | 0 | 0 | 0 | 0 |                 |
|                             |             | 1 | 2 | 3 | 4 | 5 |                 |
|                             |             |   |   |   |   |   | <b>* TOTALS</b> |

**ALIMENTARY SYSTEM**

NONE

**CARDIOVASCULAR SYSTEM**

NONE

**ENDOCRINE SYSTEM**

NONE

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

NONE

**HEMATOPOIETIC SYSTEM**

|                         |   |   |   |   |   |          |
|-------------------------|---|---|---|---|---|----------|
| Lymph Node, Bronchial   | + | M | + | + | + | <b>4</b> |
| Lymph Node, Mediastinal | + | M | + | M | + | <b>3</b> |

**INTEGUMENTARY SYSTEM**

NONE

**MUSCULOSKELETAL SYSTEM**

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

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|                             |                |   |   |   |   |   |                 |
|-----------------------------|----------------|---|---|---|---|---|-----------------|
| <b>WISTAR HAN RATS MALE</b> | DAY ON TEST    | 0 | 0 | 0 | 0 | 0 |                 |
|                             |                | 0 | 0 | 0 | 0 | 0 |                 |
|                             |                | 1 | 1 | 1 | 1 | 1 |                 |
|                             |                | 7 | 7 | 7 | 7 | 7 |                 |
|                             | <b>800 PPM</b> |   |   |   |   |   |                 |
| ANIMAL ID                   |                | 0 | 0 | 0 | 0 | 0 |                 |
|                             |                | 1 | 1 | 1 | 1 | 1 |                 |
|                             |                | 0 | 0 | 0 | 0 | 0 |                 |
|                             |                | 0 | 0 | 0 | 0 | 0 |                 |
|                             |                | 1 | 2 | 3 | 4 | 5 |                 |
|                             |                |   |   |   |   |   | <b>* TOTALS</b> |

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

|         |   |   |   |   |   |   |
|---------|---|---|---|---|---|---|
| Larynx  | + | + | + | + | + | 5 |
| Lung    | + | + | + | + | + | 5 |
| Nose    | + | + | + | + | + | 5 |
| Trachea | + | + | + | + | + | 5 |

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

**SYSTEMIC LESIONS**

|                |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | 5 |
|----------------|---|---|---|---|---|---|

\*\*\* END OF MALE DATA \*\*\*

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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|                               |                |   |   |   |   |   |                 |
|-------------------------------|----------------|---|---|---|---|---|-----------------|
| <b>WISTAR HAN RATS FEMALE</b> | DAY ON TEST    | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 1 | 1 | 1 | 1 | 1 |                 |
|                               |                | 7 | 7 | 7 | 7 | 7 |                 |
|                               | <b>Control</b> |   |   |   |   |   |                 |
|                               | ANIMAL ID      | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 1 | 1 | 1 | 1 | 1 |                 |
|                               |                | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 1 | 2 | 3 | 4 | 5 |                 |
|                               |                |   |   |   |   |   | <b>* TOTALS</b> |

**ALIMENTARY SYSTEM**

NONE

**CARDIOVASCULAR SYSTEM**

NONE

**ENDOCRINE SYSTEM**

NONE

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

NONE

**HEMATOPOIETIC SYSTEM**

|                         |   |   |   |   |   |  |  |  |          |
|-------------------------|---|---|---|---|---|--|--|--|----------|
| Lymph Node              |   |   |   |   | + |  |  |  | <b>1</b> |
| Lymph Node, Bronchial   | + | + | M | M | + |  |  |  | <b>3</b> |
| Lymph Node, Mediastinal | + | + | + | M | + |  |  |  | <b>4</b> |

**INTEGUMENTARY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
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|                               |                |   |   |   |   |   |                 |
|-------------------------------|----------------|---|---|---|---|---|-----------------|
| <b>WISTAR HAN RATS FEMALE</b> | DAY ON TEST    | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 1 | 1 | 1 | 1 | 1 |                 |
|                               |                | 7 | 7 | 7 | 7 | 7 |                 |
|                               | <b>Control</b> |   |   |   |   |   |                 |
| ANIMAL ID                     |                | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 1 | 1 | 1 | 1 | 1 |                 |
|                               |                | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 1 | 2 | 3 | 4 | 5 |                 |
|                               |                |   |   |   |   |   | <b>* TOTALS</b> |

**MUSCULOSKELETAL SYSTEM**

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

|         |   |   |   |   |   |          |
|---------|---|---|---|---|---|----------|
| Larynx  | + | + | + | + | + | <b>5</b> |
| Lung    | + | + | + | + | + | <b>5</b> |
| Nose    | + | + | + | + | + | <b>5</b> |
| Trachea | + | + | + | + | + | <b>5</b> |

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

**SYSTEMIC LESIONS**

|                |   |   |   |   |   |          |
|----------------|---|---|---|---|---|----------|
| Multiple Organ | + | + | + | + | + | <b>5</b> |
|----------------|---|---|---|---|---|----------|

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

DAY ON TEST

**WISTAR HAN RATS FEMALE**

**6.25 PPM**

ANIMAL ID

**\* 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 tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
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|                               | DAY ON TEST |                 |
|-------------------------------|-------------|-----------------|
| <b>WISTAR HAN RATS FEMALE</b> |             |                 |
| <b>6.25 PPM</b>               |             |                 |
|                               | ANIMAL ID   |                 |
|                               |             | <b>* TOTALS</b> |
| <hr/>                         |             |                 |
| <b>NERVOUS SYSTEM</b>         |             |                 |
| NONE                          |             |                 |
| <hr/>                         |             |                 |
| <b>RESPIRATORY SYSTEM</b>     |             |                 |
| NONE                          |             |                 |
| <hr/>                         |             |                 |
| <b>SPECIAL SENSES SYSTEM</b>  |             |                 |
| NONE                          |             |                 |
| <hr/>                         |             |                 |
| <b>URINARY SYSTEM</b>         |             |                 |
| NONE                          |             |                 |
| <hr/>                         |             |                 |
| <b>SYSTEMIC LESIONS</b>       |             |                 |
| Multiple Organ                |             | <b>0</b>        |

---

\* .. 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

Experiment Number: 20724 - 01  
Test Type: 14-DAY  
Route: RESPIRATORY EXPOSURE WHOLE BODY  
Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Acetoin  
CAS Number: 513-86-0

Date Report Requested: 05/19/2016  
Time Report Requested: 10:29:38  
First Dose M/F: 10/27/08 / 10/27/08  
Lab: BNW

DAY ON TEST

**WISTAR HAN RATS FEMALE**  
**25 PPM**

ANIMAL ID

**\* 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 tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

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

---

|                               | DAY ON TEST |                 |
|-------------------------------|-------------|-----------------|
| <b>WISTAR HAN RATS FEMALE</b> |             |                 |
| <b>25 PPM</b>                 |             |                 |
|                               | ANIMAL ID   |                 |
|                               |             | <b>* TOTALS</b> |
| <hr/>                         |             |                 |
| <b>NERVOUS SYSTEM</b>         |             |                 |
| NONE                          |             |                 |
| <hr/>                         |             |                 |
| <b>RESPIRATORY SYSTEM</b>     |             |                 |
| NONE                          |             |                 |
| <hr/>                         |             |                 |
| <b>SPECIAL SENSES SYSTEM</b>  |             |                 |
| NONE                          |             |                 |
| <hr/>                         |             |                 |
| <b>URINARY SYSTEM</b>         |             |                 |
| NONE                          |             |                 |
| <hr/>                         |             |                 |
| <b>SYSTEMIC LESIONS</b>       |             |                 |
| Multiple Organ                |             | <b>0</b>        |

---

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
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M .. Missing tissue  
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Lab: BNW

DAY ON TEST

**WISTAR HAN RATS FEMALE**  
**100 PPM**

ANIMAL ID

**\* 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 tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

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

Experiment Number: 20724 - 01  
Test Type: 14-DAY  
Route: RESPIRATORY EXPOSURE WHOLE BODY  
Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Acetoin  
CAS Number: 513-86-0

Date Report Requested: 05/19/2016  
Time Report Requested: 10:29:38  
First Dose M/F: 10/27/08 / 10/27/08  
Lab: BNW

---

|                               | DAY ON TEST |                 |
|-------------------------------|-------------|-----------------|
| <b>WISTAR HAN RATS FEMALE</b> |             |                 |
| <b>100 PPM</b>                |             |                 |
|                               | ANIMAL ID   |                 |
|                               |             | <b>* TOTALS</b> |
| <hr/>                         |             |                 |
| <b>NERVOUS SYSTEM</b>         |             |                 |
| NONE                          |             |                 |
| <hr/>                         |             |                 |
| <b>RESPIRATORY SYSTEM</b>     |             |                 |
| NONE                          |             |                 |
| <hr/>                         |             |                 |
| <b>SPECIAL SENSES SYSTEM</b>  |             |                 |
| NONE                          |             |                 |
| <hr/>                         |             |                 |
| <b>URINARY SYSTEM</b>         |             |                 |
| NONE                          |             |                 |
| <hr/>                         |             |                 |
| <b>SYSTEMIC LESIONS</b>       |             |                 |
| Multiple Organ                |             | <b>0</b>        |

---

\* .. 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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Route: RESPIRATORY EXPOSURE WHOLE BODY  
Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Acetoin  
CAS Number: 513-86-0

Date Report Requested: 05/19/2016  
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First Dose M/F: 10/27/08 / 10/27/08  
Lab: BNW

DAY ON TEST

**WISTAR HAN RATS FEMALE**  
**400 PPM**

ANIMAL ID

**\* 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 tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

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

Experiment Number: 20724 - 01  
Test Type: 14-DAY  
Route: RESPIRATORY EXPOSURE WHOLE BODY  
Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Acetoin  
CAS Number: 513-86-0

Date Report Requested: 05/19/2016  
Time Report Requested: 10:29:38  
First Dose M/F: 10/27/08 / 10/27/08  
Lab: BNW

---

DAY ON TEST

**WISTAR HAN RATS FEMALE**  
**400 PPM**

ANIMAL ID

---

**\* TOTALS**

---

**NERVOUS SYSTEM**

NONE

---

**RESPIRATORY SYSTEM**

NONE

---

**SPECIAL SENSES SYSTEM**

NONE

---

**URINARY SYSTEM**

NONE

---

**SYSTEMIC LESIONS**

Multiple Organ

**0**

---

\* .. 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

Experiment Number: 20724 - 01  
 Test Type: 14-DAY  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: RATS/Wistar Han

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Acetoin  
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Date Report Requested: 05/19/2016  
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 First Dose M/F: 10/27/08 / 10/27/08  
 Lab: BNW

|                               |                |   |   |   |   |   |                 |
|-------------------------------|----------------|---|---|---|---|---|-----------------|
| <b>WISTAR HAN RATS FEMALE</b> | DAY ON TEST    | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 1 | 1 | 1 | 1 | 1 |                 |
|                               |                | 7 | 7 | 7 | 7 | 7 |                 |
|                               | <b>800 PPM</b> |   |   |   |   |   |                 |
| ANIMAL ID                     |                | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 1 | 1 | 1 | 1 | 1 |                 |
|                               |                | 1 | 1 | 1 | 1 | 1 |                 |
|                               |                | 0 | 0 | 0 | 0 | 0 |                 |
|                               |                | 1 | 2 | 3 | 4 | 5 |                 |
|                               |                |   |   |   |   |   | <b>* TOTALS</b> |

**ALIMENTARY SYSTEM**

NONE

**CARDIOVASCULAR SYSTEM**

NONE

**ENDOCRINE SYSTEM**

NONE

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

NONE

**HEMATOPOIETIC SYSTEM**

|                         |   |   |   |   |   |          |
|-------------------------|---|---|---|---|---|----------|
| Lymph Node, Bronchial   | + | + | M | + | + | <b>4</b> |
| Lymph Node, Mediastinal | + | + | + | + | + | <b>5</b> |

**INTEGUMENTARY SYSTEM**

NONE

**MUSCULOSKELETAL SYSTEM**

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 I .. Insufficient tissue

M .. Missing tissue  
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 Lab: BNW

|                               |             |   |   |   |   |   |                 |
|-------------------------------|-------------|---|---|---|---|---|-----------------|
| <b>WISTAR HAN RATS FEMALE</b> | DAY ON TEST | 0 | 0 | 0 | 0 | 0 |                 |
|                               |             | 0 | 0 | 0 | 0 | 0 |                 |
|                               |             | 1 | 1 | 1 | 1 | 1 |                 |
|                               |             | 7 | 7 | 7 | 7 | 7 |                 |
|                               |             |   |   |   |   |   |                 |
| <b>800 PPM</b>                | ANIMAL ID   | 0 | 0 | 0 | 0 | 0 |                 |
|                               |             | 1 | 1 | 1 | 1 | 1 |                 |
|                               |             | 1 | 1 | 1 | 1 | 1 |                 |
|                               |             | 0 | 0 | 0 | 0 | 0 |                 |
|                               |             | 1 | 2 | 3 | 4 | 5 |                 |
|                               |             |   |   |   |   |   | <b>* TOTALS</b> |

NONE

**NERVOUS SYSTEM**

NONE

**RESPIRATORY SYSTEM**

|         |   |   |   |   |   |   |
|---------|---|---|---|---|---|---|
| Larynx  | + | + | + | + | + | 5 |
| Lung    | + | + | + | + | + | 5 |
| Nose    | + | + | + | + | + | 5 |
| Trachea | + | + | + | + | + | 5 |

**SPECIAL SENSES SYSTEM**

NONE

**URINARY SYSTEM**

NONE

**SYSTEMIC LESIONS**

|                |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | 5 |
|----------------|---|---|---|---|---|---|

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

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

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