Experiment Number: 60311 - 02 Test Type: 14-DAY Route: RESPIRATORY EXPOSURE WHOLE BODY Species/Strain: MICE/B6C3F1

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Cobalt CAS Number: 7440-48-4 Date Report Requested: 09/13/2016 Time Report Requested: 14:38:57 First Dose M/F: 08/02/04 / 08/02/04 Lab: BNW

| NTP Study Number: | C60311 |
|----------------------|-------------|
| Lock Date: | 11/29/2005 |
| 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 |

| Test Type: 14-DAY Route: RESPIRATORY EXPOSURE WHOLE BODY Species/Strain: MICE/B6C3F1 | | Cok CAS Numbe | Time Report Requested: 14:38:57 First Dose M/F: 08/02/04 / 08/02/04 Lab: BNW | | | |
|--|---------|------------------|--|----------|----------|----------|
| B6C3F1 MICE MALE | CONTROL | 2.5 MG/M3 | 5 MG/M3 | 10 MG/M3 | 20 MG/M3 | 40 MG/M3 |
| Disposition Summary | | | | | | |
| Animals Initially In Study Early Deaths | 5 | 5 | 5 | 5 | 5 | 5 |
| Natural Death Survivors | | | | | | 3 |
| Terminal Sacrifice | 5 | 5 | 5 | 5 | 5 | 2 |
| Animals Examined Microscopically | 5 | 5 | 5 | 5 | 5 | 5 |
| ALIMENTARY SYSTEM | | | | | | |
| Liver | (5) | (0) | (0) | (0) | (0) | (5) |
| CARDIOVASCULAR SYSTEM | | | | | | |
| None | | | | | | |
| ENDOCRINE SYSTEM | | | | | | |
| Thyroid Gland | (3) | (0) | (0) | (0) | (0) | (5) |
| GENERAL BODY SYSTEM | | | | | | |
| None | | | | | | |
| GENITAL SYSTEM | | | | | | |
| None | | | | | | |
| HEMATOPOIETIC SYSTEM | | | | | | |
| Spleen | (0) | (1) | (0) | (1) | (0) | (0) |

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Date Report Requested: 09/13/2016

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

Experiment Number: 60311 - 02

| Experiment Number: 60311 - 02 Test Type: 14-DAY Route: RESPIRATORY EXPOSURE WHOLE BODY Species/Strain: MICE/B6C3F1 | P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a) Cobalt CAS Number: 7440-48-4 | | | | Date Report Requested: 09/13/2016 Time Report Requested: 14:38:57 First Dose M/F: 08/02/04 / 08/02/04 Lab: BNW | |
|---|---|------------|------------|------------|---|------------|
| B6C3F1 MICE MALE | CONTROL | 2.5 MG/M3 | 5 MG/M3 | 10 MG/M3 | 20 MG/M3 | 40 MG/M3 |
| INTEGUMENTARY SYSTEM | | | | | | |
| None | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | |
| None | | | | | | |
| NERVOUS SYSTEM | | | | | | |
| None | | | | | | |
| RESPIRATORY SYSTEM | | | | - | | - |
| Lung Nose | (5) (5) | (5) (5) | (5) (5) | (5) (5) | (5) (5) | (5) (5) |
| SPECIAL SENSES SYSTEM | | | | | | |
| None | | | | | | |
| URINARY SYSTEM | | | | | | |
| Kidney | (5) | (0) | (0) | (0) | (0) | (5) |

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

| Experiment Number: 60311 - 02 Test Type: 14-DAY Route: RESPIRATORY EXPOSURE WHOLE BODY Species/Strain: MICE/B6C3F1 | P02: INCID | ENCE RATES OF NEO Col CAS Numbe | Date Report Requested: 09/13/2016 Time Report Requested: 14:38:57 First Dose M/F: 08/02/04 / 08/02/04 Lab: BNW | | | |
|---|------------|---------------------------------------|---|----------|----------|----------|
| B6C3F1 MICE MALE | CONTROL | 2.5 MG/M3 | 5 MG/M3 | 10 MG/M3 | 20 MG/M3 | 40 MG/M3 |
| 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: 14-DAY Route: RESPIRATORY EXPOSURE WHOLE BODY Species/Strain: MICE/B6C3F1 | FUZ. INCID | Col COL CAS Numbe | Time Report Requested: 09/13/2018 Time Report Requested: 14:38:57 First Dose M/F: 08/02/04 / 08/02/04 Lab: BNW | | | |
|--|------------|-------------------------|---|----------|----------|----------|
| B6C3F1 MICE FEMALE | CONTROL | 2.5 MG/M3 | 5 MG/M3 | 10 MG/M3 | 20 MG/M3 | 40 MG/M3 |
| Disposition Summary | | | | | | |
| Animals Initially In Study Early Deaths Natural Death Survivors | 5 | 5 | 5 | 5 | 5 | 5 3 |
| Terminal Sacrifice Animals Examined Microscopically | 5 5 | 5 5 | 5 5 | 5 5 | 5 5 | 2 5 |
| ALIMENTARY SYSTEM | | | | | | |
| Liver | (5) | (0) | (0) | (0) | (0) | (5) |
| CARDIOVASCULAR SYSTEM | | | | | | |
| None | | | | | | |
| ENDOCRINE SYSTEM | | | | | | |
| Thyroid Gland | (5) | (0) | (0) | (0) | (0) | (5) |
| GENERAL BODY SYSTEM | | | | | | - |
| None | | | | | | |
| GENITAL SYSTEM | | | | | | |
| Ovary | (0) | (1) | (0) | (0) | (0) | (0) |
| HEMATOPOIETIC SYSTEM | | | | | | |
| Spleen | (0) | (0) | (0) | (0) | (0) | (1) |
| | | | | - | | |

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Date Report Requested: 09/13/2016

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

Experiment Number: 60311 - 02

| P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a) Cobalt CAS Number: 7440-48-4 | | | | Date Report Requested: 09/13/2016 Time Report Requested: 14:38:57 First Dose M/F: 08/02/04 / 08/02/04 Lab: BNW | |
|---|-----------------------|-------------------|---------------------------|--|--|
| CONTROL | 2.5 MG/M3 | 5 MG/M3 | 10 MG/M3 | 20 MG/M3 | 40 MG/M3 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| (5) (5) | (5) (5) | (5) (5) | (5) (5) | (5) (5) | (5) (5) |
| | | | | | |
| | | | | | |
| | | | | | |
| (5) | (0) | (0) | (0) | (0) | (5) |
| | CONTROL (5) (5) | CONTROL 2.5 MG/M3 | Control 2.5 MG/M3 5 MG/M3 | Cobalt CAS Number: 7440-48-4 CONTROL 2.5 MG/M3 5 MG/M3 10 MG/M3 (5) (5) (5) (5) (5) (5) (5) (5) (5) (5) (5) (5) (5) (5) (5) | Cobalt CAS Number: 7440-48-4 Time Report Requ First Dose M/F: 08 Lab: BNW CONTROL 2.5 MG/M3 5 MG/M3 10 MG/M3 20 MG/M3 (5) (5) (5) (5) (5) (5) (5) (5) (5) (5) (5) (5) (6) (5) (5) (5) (5) (5) (5) (5) (5) (5) (5) (5) |

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

| Experiment Number: 60311 - 02 Test Type: 14-DAY Route: RESPIRATORY EXPOSURE WHOLE BODY Species/Strain: MICE/B6C3F1 | P02: INCID | ENCE RATES OF NEO Col CAS Numbe | Date Report Requested: 09/13/2016 Time Report Requested: 14:38:57 First Dose M/F: 08/02/04 / 08/02/04 Lab: BNW | | | |
|---|------------|---------------------------------------|---|----------|----------|----------|
| B6C3F1 MICE FEMALE | CONTROL | 2.5 MG/M3 | 5 MG/M3 | 10 MG/M3 | 20 MG/M3 | 40 MG/M3 |
| 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