|  |  |
| --- | --- |
| **Principal Investigator:** |  |
| **Emergency Phone:** |  |
| **Secondary phone:** |  |
| **Email:** |  |
| **IACUC protocol number:** |  |
| **Species used** |  |
| **LARC rooms used** |  |
| **Dates of Administration(s)** |  |
| **Describe the personal protective equipment used for the procedures involving busulfan** |  |
| **Describe the potential routes of exposure to humans involving busulfan.** |  |
| **Acute or chronic affects:** |  |
| **Describe the procedures utilizing busulfan in animal subjects** |  |
| **Control procedures for animal care** | * The LARC will be informed of intent to use busulfan prior to use. * Give at least 48 hour notice. * Cages of animals injected with busulfan will be clearly labeled as such. * All bedding changed during chemical administration and for 72 hours beyond final administration must be collected for disposal has hazardous waste. |
| **Engineering controls** | * There is not a chemical fume hood in the UMKC LARC for the manipulation of chemicals. * Any manipulation of powders or crystals must be performed in a certified fume hood or ducted hood in a laboratory outside of the UMKC LARC. |

**INVESTIGATOR’s RESPONSIBILITIES**

Notification of animal care staff

* Research staff will inform animal care staff at a minimum of 48 hours ahead of time that busulfan will be used and arrangements will be made for housing of animals.
* Fresh cages will be used for the animals at the time of administration.
* Safety Data Sheets (SDS) will be required to be provided by the PI to the LARC Manager.

Posting requirements

A copy of this SOP will be posted on the door of the roomin which the animals will be housed and the investigator will provide information to the LARC staff in the safe handling and disposal of animals, carcasses and contaminated waste.

Disposal of hazardous chemical waste

The UMKC Chemical Management Plan has information concerning the disposal of hazardous chemical waste at the following link. [<http://www.umkc.edu/finadmin/ehs/documents/ChemicalManagementPlanWord06202016.pdf>](http://www.umkc.edu/finadmin/ehs/documents/chem-management-plan.pdf)

Or, follow your parent institutions requirements if materials are returned to parent institution.

Sharps and needle disposal

All sharps and needles need to be disposed of at the point of use in an appropriate hard walled sharps container.

Accident or injury reporting

* UMKC Employees.
  + As soon as possible contact your Supervisor. Your Supervisor should fill out an accident report and contact the University of Missouri System Risk and Insurance Management for directing care
    - Phone: 573-882-8100 (Risk & Insurance Mgmt. UM System)
    - Web page: <http://www.umkc.edu/finadmin/ehs/workers-comp.asp>
* Other affiliated Institutions
  + Contact the appropriate office or department for direction of care

BUSULFAN MATERIALS INFORMATION

CAS Registry Number: 55-98-1

Acute affects

Toxic by inhalation, toxic by ingestion, highly toxic by skin absorption.

Chronic affects

Carcinogen, known carcinogen based on sufficient evidence of carcinogenicity from studies in humans.

Busulfan is classified as a Group 1, carcinogenic to humans, by the International Agency for Research on Cancer (IARC).

Refer to the Safety Data Sheet for additional information concerning the hazards associated with busulfan.

Additional information can be found at the following websites:

**National toxicology program:**

<https://ntp.niehs.nih.gov/testing/status/agents/ts-11244-d.html>

**National institutes of Health, TOXNET database:**

<https://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~QqdMRr:3>

**REVISIONS:**

June 2015, Original document

June 2017, revisions and reformatting