**Standard Operating Procedure for Laboratories**

 **BENZIDINE**

|  |  |
| --- | --- |
| Department: | Click here to enter text. |
| Principal Investigator(s): | Click here to enter text. |
| Lab Manager/Coordinator: | Click here to enter text. |
| Location of Experiment: (Building/Room Number) | Click here to enter text. |
| Lab Phone: | Click here to enter text. |
| Office Phone: | Click here to enter text. |
| Emergency Contact: (Name/Phone) | Click here to enter text. |

**Reviewed and Approved by**:

|  |  |
| --- | --- |
| PI: (Typed Name) | Click here to enter text. |
| PI: (Signature and Date) |  | Click here to enter a date. |
| Lab Manager: (if PI unavailable) |  | Click here to enter a date. |

**Hazardous Material Use and Management**

|  |  |
| --- | --- |
| Hazardous Material(s) Used: (wt./volume) | Benzidine:Maximum amount allowed without PI approval: |
| Hazardous Material Storage Location: | Keep container tightly closed in a dry and well ventilated place.Light sensitive.Designated Storage Area:  |
| Experimental Procedure and Lab Technics to be Used:  | Click here to enter text. |
| Hazard Identification: (i.e., physical/health hazards) | **CAS # 92-87-5****GHS Classification: Acutely toxic. Carcinogen. Very toxic to aquatic life with long lasting effects.*** Confirmed human carcinogen producing bladder tumors.
* Poison by ingestion.
* Can cause damage to blood including hemolysis and bone marrow depression.
* When heated to decomposition it emits highly toxic fumes of nitrogen oxides. It will react spontaneously with red fuming nitric acid.

OSHA: CarcinogenNIOSH: CarcinogenReview MSDS/SDS prior to working with chemical. |
| Engineering Controls: (chemical fume hood, biosafety cabinet, glove box) | Use in chemical fume hood with adequate exhaust.Eyewash and safety showers must be readily available. |
| Protective Equipment: | Use chemical resistant gloves, nitrile gloves are sufficient. Wear safety glasses with side shields.Wear lab coat, long pants and closed-toe shoesCheck with glove manufacturer for more info. |
| Waste Collection/Disposal Method: | Waste should be collected in tightly closed container, in secondary containment and in a designated location inside a fume hood. Affix and complete hazardous waste label. Contact REHS for waste pick up.<https://halflife.rutgers.edu/forms/hazwaste.php> |
| Spill Management:  | Avoid dust formation. Avoid breathing vapors or mist. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Sweep up without creating dust and arrange disposal. Do not let it enter drains.If a spill happened outside fume hood, on floor, on bench or outside the lab contact REHS for clean up or call 911. |
| First Aid: | Eyes: Flush eyes with warm water for 15 min as a precaution.Skin: Flush affected skin with plenty of water. Consult a physician.Inhalation: Remove to fresh air. If breathing is difficult give oxygen. Seek medical attention.Ingestion: Rinse mouth with water. Consult a physician. |

**Training**

* Prior to conducting any work with benzidine, designated personnel must be provided training specific to the hazard involved in working with the substance.
* The PI must provide his/her lab personnel with a copy of the SOP and a copy of the SDS provided with the manufacturer.
* The PI must ensure that his/her lab personnel have attended and are up to date on the appropriate laboratory safety training within the last year.

I have read and understood the content of this SOP and the SDS:

|  |  |  |
| --- | --- | --- |
| Lab Personnel (Running the Experiment) | Date of Hands-on Training from Department | Signature of Lab Personnel |
| Click here to enter text. | Click here to enter text. |  |
| Click here to enter text. | Click here to enter text. |  |
| Click here to enter text. | Click here to enter text. |  |

**BENZIDINE**

**Acutely toxic. Carcinogen. Very toxic to aquatic life with long lasting effects.**

****

**FIRST AID**

**Eyes**: Flush eyes with warm water for 15 min as a precaution.

**Skin:** Flush affected skin with plenty of water. Consult a physician.

**Inhalation**: Remove to fresh air. If breathing is difficult give oxygen. Seek medical attention.

**Ingestion**: Rinse mouth with water. Consult a physician.

**DIAL 911 Call REHS for more information 848-445-2550**