**Standard Operating Procedure for Laboratories**

 **CHLOROFORM**

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| --- | --- |
| 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**

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| Hazardous Material(s) Used: (wt./volume) | Chloroform:Maximum amount allowed without PI approval: |
| Hazardous Material Storage Location: | Keep container tightly closed in a dry and well-ventilated place.Containers, which are opened, must be carefully resealed and kept upright to prevent leakage. |
| Experimental Procedure and Techniques to be Used:  |   |
| Hazard Identification: (i.e., physical/health hazards) | **CAS # 67-66-3****GHS Classification: Acutely toxic, carcinogen, skin and eye irritant, reproductive toxin.*** Inhalation of the concentrated vapor cause dilation of pupils with reduced reaction to light, feeling warmth of the face and body.
* Prolong inhalation will bring on paralysis accompanied by cardiac –respiratory failure and final death.
* Forms impact-sensitive explosive mixtures with sodium or potassium.
* Reacts violently with acetone and alkali. Incompatible with dinitrogen tetraoxide, fluorine, metals, or triisopropylphosphine.
* When heated to decomposition it emits toxic fumes of Chlorine or phosgene.

 OSHA PEL: TWA 2ppm, C 50ppmACGIH TLV: TWA 10 ppm NIOSH REL: C 2ppmReview 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 availableWash hands before breaks and immediately after handling the chloroform. |
| Protective Equipment: | Use chemical resistant gloves, nitrile gloves or fluorinated rubber gloves are sufficient. Wear tightly fitted safety gaggles, faceshield may be required.Wear lab coat, long pants and closed-toe shoesAlways check 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 breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Soak up spill with inert absorbent material and dispose of as hazardous waste. 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. Seek medical attention as soon as possible.Skin: Flush affected skin with plenty of warm water and mild soap. Seek medical attention if discomfort or irritation persists. 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 chloroform, 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 |
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**CHLOROFORM**

**Acutely Toxic, Carcinogen, Skin and Eye Irritant, Reproductive Toxin.**



**FIRST AID**

**Eyes:** Flush eyes with warm water for 15 min. Seek medical attention as soon as possible.

**Skin**: Flush affected skin with plenty of warm water and mild soap. Seek medical attention if discomfort or irritation persists.

**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**