**Standard Operating Procedure for Laboratories**

 **Beta-PROPIOLACTONE**

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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) |  |
| 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) | Beta-Propiolactone:Maximum amount allowed without PI approval: |
| Hazardous Material Storage Location: | Store containers tightly closed in a dry, cool and well-ventilated place. Store away from open flames, hot surfaces and sources of ignition. Keep away from heat and sources of ignition. Protect from light. Store in freezer. May polymerize upon storage.Recommended storage temperature -20 °C.Designated Storage Area: |
| Experimental Procedure and Lab Techniques to be Used:  | Click here to enter text. |
| Hazard Identification: (i.e., physical/health hazards) | **CAS # 57-57-8****GHS Classification: Flammable liquid. Acutely toxic. Skin and eye irritant. Carcinogen.*** Confirmed human carcinogen.
* Poison by inhalation. Moderately toxic by intraperitoneal route. Fatal if inhaled.
* Can cause serious skin and eye irritation. Incompatible with alkalis, acetates, halogens, triocyanates, triosulfates.
* React with acids to produce heat along with alcohols and acids. Strong oxidizing acids may cause an exothermic reaction that can ignite reaction products.

OSHA: CarcinogenNIOSH: CarcinogenReview MSDS/SDS prior to working with chemical. |
| Engineering Controls: (chemical fume hood, biosafety cabinet, glove box) | Use only in a chemical fume hood with adequate exhaust. Use explosion-proof equipment. Take precautionary measures against static discharges. Safety showers and eye wash must be readily available.  |
| Protective Equipment: | Use chemical resistant gloves, nitrile gloves are sufficient. Wear tightly fitted safety gaggles, faceshield may be required.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. Affix and complete hazardous waste label. Contact REHS for waste pick up. <https://halflife.rutgers.edu/forms/hazwaste.php> |
| Spill Management:  | Evacuate personnel to safe area. Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Take measures to prevent the buildup of electrostatic charge. Beware of vapors accumulating to form explosive concentrations that accumulate in low areas. Soak up the spill with inert absorbent material.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. Skin: Flush affected skin with plenty of water. Seek immediate medical attention.Inhalation: Remove to fresh air. If breathing is difficult give oxygen. Seek medical attention.Ingestion: Rinse mouth with water. Call poison center. Seek immediate medical attention. |

**Training**

* Prior to conducting any work with beta-propiolactone, 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:

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| --- | --- | --- |
| Lab Personnel (Running the Experiment) | Date of Hands-on Training from Department | Signature of Lab Personnel |
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**Beta-PROPIOLACTONE**

**Flammable liquid. Acutely toxic. Skin and eye irritant. Carcinogen.**

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**FIRST AID**

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

**Skin**: Flush affected skin with plenty of water. Seek immediate medical attention.

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

**Ingestion**: Rinse mouth with water. Call poison center. Seek immediate medical attention.

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