Standard Operating Procedure

**Isobenzan**

*This is an SOP template and is not complete until: 1) lab specific information is entered into the box below 2) lab specific protocol/procedure is added to the protocol/procedure section and
3) SOP has been signed and dated by the PI and relevant lab personnel.*

 Print a copy and insert into your
*Laboratory Safety Manual* and *Chemical Hygiene Plan*.
Refer to instructions for assistance.

|  |  |
| --- | --- |
| **Department:** | Click here to enter text. |
| **Date SOP was written:** | Click here to enter a date. |
| **Date SOP was approved by PI/lab supervisor:** | Click here to enter a date. |
| **Principal Investigator:** | Click here to enter text. |
| **Internal Lab Safety Coordinator/Lab Manager:** | Click here to enter text. |
| **Lab Phone:** | Click here to enter text. |
| **Office Phone:** | Click here to enter text. |
| **Emergency Contact:** | Click here to enter text. |
| *(Name and Phone Number)* |
| **Location(s) covered by this SOP:** | Click here to enter text. |
| *(Building/Room Number)* |

**Type of SOP:** ☐ Process ☒Hazardous Chemical ☐ Hazardous Class

**Purpose**

Insecticide

(*State the procedure the specific chemical is used for in lab/the purpose of the chemical*)

**Physical & Chemical Properties/Definition of Chemical Group**

CAS#: 297-78-9

Class: **Acute Toxin**

Molecular formula: C17H4ClO8

Form (Physical State): Whitish to light-brown crystalline powder with a mild chemical odor.

**Potential Hazards/Toxicity**

LD50: 3 mg/kg (Oral – Rat)

* *Inhalation:* Nausea, vomiting, headache, dizziness, and/or convulsions.
* *Ingestion:* Difficulty breathing, convulsions, and/or death.
* *Skin Contact:* Nausea, vomiting, headache, dizziness, convulsions, and/or death.
* *Eye Contact:* May cause irritation, redness, and pain.

**Personal Protective Equipment (PPE)**

* *Eyes:* Wear safety glasses.
* *Skin:* Wear nitrile, natural rubber, neoprene, butyl, PVC or Viton gloves.
* *Clothing:* Wear long pants, shirt, and closed toe shoes and a lab coat while handling.
* *Respirators:* Respiratory protection is not generally required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.
* Lab personnel intending to use/wear a respirator mask must be trained and fit-tested by ORS and should contact occhealt@uga.edu. This is a UGA requirement described in more detail in the [UGA Respiratory Protection Plan](https://esd.uga.edu/sites/default/files/respiratoryprotection.pdf) and supported by the [Office of Research Occupational Health and Safety Program](https://research.uga.edu/ohsp/).

**Engineering Controls**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**First Aid Procedures**

* *Inhalation*: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
* *Ingestion*: Never give anything by mouth to an unconscious person. Rinse mouth with water. Get medical attention immediately.
* *Skin Contact*: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash off with soap and plenty of water. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse. Contaminated work clothes should be laundered by individuals who have been informed of the hazards of exposure to this substance.
* *Eye Contact*: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.
* *Note to Physicians:*For inhalation, consider oxygen. For ingestion, consider gastric lavage and activated charcoal slurry. Consider oxygen. Avoid fats.

**Special Handling and Storage Requirements**

* All work with isobenzan is to be done in the "isobenzan" designated area in order to keep contamination to a minimum. (*State the location of the designated area including the fume hood where work should be done and the storage location)*
* All chemicals containing isobenzan must be secondarily contained with proper signage. Containers of isobenzan and designated areas, including storage cabinets, must be labeled with an “ACUTE TOXIN” warning. Any persons in this area are required to wear personal protective equipment. Safety shower and eye wash stations should be easily accessible where isobenzan is used.
* All laboratory equipment (such as beakers, pipettes, gel electrophoresis systems etc.) used in the "isobenzan" designated area are to be labeled as " isobenzan contaminated" and are not to be removed from the area without first being decontaminated.
* *Handling:* Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use only with adequate ventilation or respiratory protection.
* *Storage:* Store in a tightly closed container. Keep away from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances including acids and certain metal salts.

**Spill and Accident Procedure**

**Chemical Spill Dial 911**

**24-7 On-Call Response to Research, Environment, Health or Safety Concerns Dial 2-5561 from a campus phone or 706-542-5561 from a non-campus line.**

**Spill** – Follow the procedures set out in the [UGA Chemical and Laboratory Safety Manual.](http://research.uga.edu/docs/units/safety/manuals/Chemical-Laboratory-Safety-Manual.pdf)

[If there are any chemical-specific protocols for responding to a spill, insert them here or mark “none”:]

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**Medical Emergency Dial 911**

**Life Threatening Emergency, After Hours, Weekends And Holidays** – Dial **911** or the emergency phone numbers listed at the beginning of the UGA Chemical and Laboratory Safety Manual

*Note: All incidents that result in an injury or property damage must be reported to ORS / ESD using a University Incident/Accident Report.*

**Non-Life Threatening Emergency** – Follow the instructions in the UGA Chemical and Laboratory Safety Manual.

*Note: All incidents that result in an injury or property damage must be reported to ORS / ESD using a University Incident/Accident Report.*

**Decontamination/Waste Disposal Procedure**

**For general hazardous waste disposal procedures, see Appendix H of the UGA Chemical and Laboratory Safety Manual.**

**Chemical Specific Procedures: [to be inserted or marked as “none”]**

Waste disposal procedures

1. Isobenzan waste shall be disposed of into waste containers specifically designated for isobenzan. Examples of isobenzan waste material include gloves, pipette tips, paper towels that have been contaminated with isobenzan.

Decontamination of Equipment

Equipment that needs to be decontaminated (for repair or change of location etc.) must be washed with soapy water and rinsed with copious amounts of water.

**Safety Data Sheet (SDS) Location**

UGA personnel can access Online SDS through a link in the upper left corner of the ESD home page (<https://esd.uga.edu>) and logging in by using their UGA email user name and password.

**Protocol/Procedure**

*(Add specific description of procedure.)*

**Note:** Any deviation from this SOP requires written approval from PI.

**Documentation of Training** *(signature of all users is required)*

* Prior to conducting any work with the chemical, designated personnel must provide training to his/her laboratory personnel specific to the hazards involved in working with this substance, work area decontamination, and emergency procedures.
* The Principal Investigator must provide his/her laboratory personnel with a copy of this SOP and access to the SDS provided by the manufacturer.
* The Principal Investigator must ensure that his/her laboratory personnel have attended appropriate laboratory safety training or refresher training within the last 12 months.

**Principal Investigator SOP Approval**

Print name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Approval Date:

I have read and understand the content of this SOP:

|  |  |  |
| --- | --- | --- |
| **Name** | **Signature** | **Date** |
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