**STANDARD OPERATING PROCEDURE**

*Fill out the form completely, print and place it with your laboratory-specific Chemical Hygiene Plan. All personnel who are subject to the requirements of this SOP must review and sign the training record on the back of the SOP.*

Department: Chemistry Date when SOP was written:

SOP Prepared by:

SOP Reviewed and Approved by (name/signature):

Approval Date:

Principal Investigator:

Laboratory Phone: Office Phone (For PI):

Emergency Contact(s) (name/phone #): **6-7777** from a JHU extension or **410-516-7777** from a cell phone.

**Primary contact:**

**Secondary contact:** Dr. Dan Kuespert (Safety Advocate), 410-516-5525 (office)

Location(s) covered by this SOP (building/room number(s)):

**Section 1:**  ProcessHazardous Chemical Hazard Class

**Title of SOP:**

1. **PROCESS ABSTRACT**

*Briefly describe the process or type of process that involves the use of hazardous chemical(s) in this laboratory. This process may be described in general terms, such as “extraction” and “distillation” or in more detailed terms, such as “spectrophotometer analysis of cholesterol extraction.”*

1. **POTENTIAL HAZARDS**
2. *For each process, list the hazardous chemical(s) and the expected by-product(s) produced; or*
3. *List the chemical(s) or class of chemical(s).*
4. *Please list signs and symptoms of exposure.*
5. **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

*Discuss the personal protective equipment and hygiene practices used with each process, class of chemicals or individual chemical.*

* 1. *Personal protective equipment includes gloves, laboratory coats/coveralls or aprons, safety spectacles, goggles or face-shields, and air-purifying respirators. Include the type of gloves needed for each phase of the process. If laboratory coats, eye protection, or respirators are required indicate when and why.*
  2. *If you think that your process may require respirator use, contact EH&S for assistance.*

1. **ENGINEERING/VENTILATION CONTROLS**

*Describe engineering controls designed to reduce employee exposures to hazardous chemicals, such as fume hoods, snorkels, aerosol suppression devices, or safety features on equipment.*

1. **SPECIAL HANDLING PROCEDURES AND STORAGE REQUIREMENTS**
   1. *Describe storage requirements for hazardous chemicals in your laboratory.*
   2. *Include restricted access plans, ventilation systems used, and special containment devices, etc.*
   3. *Describe safe methods of transporting chemicals, such as double containment and using a University vehicle to transport chemicals.*
2. **SPILL AND INCIDENT PROCEDURES**

*Indicate how spills or incidents should be handled and by whom.*

1. **DECONTAMINATION PROCEDURES**

*Specify decontamination procedures to be used for equipment, glassware, and clothing. Including equipment such as glove boxes, hoods, lab benches, and controlled areas within the lab.*

1. **WASTE DISPOSAL**

*Describe waste disposal procedures for these chemicals*

1. **PRIOR APPROVAL/REVIEW REQUIRED**

*Discuss the circumstances under which a particular laboratory operation, procedure, or activity will require prior approval from the PI or laboratory supervisor.*

*Describe the circumstances under which this SOP will have to be reviewed by PI/lab supervisor – scale up, temperature/pressure change that might cause the reaction to proceed more quickly, change in reactants that might result in increased hazards, etc.*

1. **DESIGNATED AREA**

*Indicate the designated area for your laboratory. A designated area must be considered for work with "particularly hazardous substances" or chemical carcinogens. The entire laboratory, fume hood, or a portion of the laboratory may be considered as a designated area.*

1. **SAFETY DATA SHEETS AND OTHER RESOURCES**

*Various material safety data sheet databases are suggested by The Johns Hopkins University Office of Health, Safety, and Environment. Please see http://www.hopkinsmedicine.org/hse/msds/index.html for a list of sources to obtain a specific MSDS.*

1. **DETAILED PROTOCOL**

*Insert or attach a copy of your specific laboratory procedures for the process, hazardous chemical, or hazard class.*

**Documentation of Standard Operating Procedure (SOP) Training**

*(signature of all users is required)*

* Prior to conducting any work with **[BLANK]**, laboratory personnel must be trained on the hazards involved in working with this SOP, how to protect themselves from the hazards, and emergency procedures.
* Ready access to this SOP and to a Safety Data Sheet for each hazardous material described in the SOP must be made available.
* The Principal Investigator (PI), or the laboratory supervisor if the activity does not involve a PI, must ensure that his/her laboratory personnel have attended appropriate laboratory safety training or refresher training within the last three years.

**Designated Trainer:** *(signature is required)*

I have read and acknowledge the contents, requirements, and responsibilities outlined in this SOP:

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Signature** | **Trainer Initials** | **Date** |
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