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| Standard Operating Procedure |
| Handling Corrosive Materials(when standard eyewash and shower are not readily available) |

*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.

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| School / Department: | Click here to enter text. |
| SOP Preparation Date: | Click here to enter a date. | SOP Approval Date: | Click here to enter a date. |
| Principal Investigator: | Click here to enter text. |
| Lab Manager Name: | Click here to enter text. |
| Laboratory Phone: | Click here to enter text. | Office Phone: | Click here to enter text. |
| Emergency Contact: | Click here to enter text. | Contact Phone: | Click here to enter text. |
| Laboratory locations covered by this SOP (building / room number): |
| Click here to enter text. |

**Purpose**

Some ASU laboratory spaces are not equipped with a standard emergency-eyewash or a safety shower; therefore, it is recognized that employees should be provided a Standard Operating Procedure (SOP) to follow when handling hazardous materials. The purpose of this SOP is to ensure that safe handling practices and personal protection requirements are known and followed, such that accidental exposure risk is minimized.

**Potential Hazards**

Hazardous materials, particularly caustic or corrosive liquids (pH <2 or > 12), that are being transported or handled may accidently contact skin or eyes which could cause some of the following adverse reactions: irritation, burning, impairment, or death.

**Training Requirements (prior to working in the lab)**

Anyone who intends to work in the lab where hazardous materials exist must complete the following training prior to working in the lab or when a new hazardous chemical is introduced into the area in accordance with the ASU Chemical Hygiene Plan (CHP).

* EH&S Laboratory Safety Training – EH&S retains record of attendance
* Laboratory-specific training – provided by the lab’s Principal Investigator, PI keeps documented records

**Working Alone Is Not Authorized**

Working alone with hazardous materials, hazardous equipment, or hazardous processes is prohibited unless authorized by the lab’s Principal Investigator (PI), or his or her designee, in accordance with ASU Policy EHS-123 or as otherwise approved by the Department of Environmental Health & Safety (EH&S).

In the event of personal contact with a hazardous material, at least one other person must be present in the lab to assist the injured employee and to contact emergency medical services.

**Personal Protective Equipment (PPE)**

Everyone within the lab shall wear the following minimum Personal Protective Equipment (PPE) at all times in accordance with the ASU Chemical Hygiene Plan.

* Safety glasses or chemical splash goggles
* Lab coat
* Long pants
* Closed-toed shoes

The following additional PPE items shall be worn when transporting or pouring caustic or corrosive liquids.

* Chemical face shield in front of chemical splash goggles
* Acid resistant arm sleeves, elastic cinched tightly over first pair of nitrile or latex gloves
* Compatible acid-resistant gauntlet-style gloves, usually neoprene or rubber
* Acid resistant apron that extends below the knees

**Procedures**

* Avoid pouring large volumes of corrosive or caustic liquids above waste level
* Do not store containers of corrosive or caustic liquids above eye level
* If a chemical splashed the gloves, wash the chemical off immediately within the hood. if necessary, remove the gloves and put on a clean pair.
* Put on the personal protective equipment and transfer the container to the designated hood.
* Use any designated carrier and exercise caution when handling large glass containers as even slight impact to the edge of a bench top or another container can cause breakage due to the weigh to the container.
* Lower the hood sash such that your face is not exposed to a potential sash and slowly open the container.
* Utilize only the minimum amount of material needed and recap the container. Clean up any minor amounts of spilled material immediately and dispose of clean up material in designated containers.
* Close the container. Do not move open containers of corrosive materials from the designated and approved location of use.
* When finished return the chemical container to the designated storage location using any designated carrier and while wearing required PPE.
* Follow the ASU emergency response guide instructions to report any major spill or incident.

**Protocol / Procedure**

**Laboratory-specific procedures**

Add your lab’s specific procedures in this section.

 Click here to enter text.

**IMPORTANT NOTE:** Any deviation from this SOP requires advance PI approval.

**Documentation of Training**

* Prior to conducting any work with this material, Principal Investigator or designee must provide 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 a copy of the MSDS provided by the manufacturer.
* The Principal Investigator must ensure that his/her laboratory personnel have attended appropriate/required laboratory safety training or refresher training within the last one year.

**I have read and understand the content of this SOP.**

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| Employee Name | ASU Affiliate No. | Signature | Date |
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