I. STANDARD OPERATING PROCEDURE

Use this form to document the Health & Safety information associated with the procedure.

**Procedure Title:** Standard Operating Procedure (SOP) Development Guidance Document

**Dept:** List your department  
**Bldg/Rm:** List building & room number  
**Supervisor:** List principal investigator or lab supervisor

**Procedure Overview:** (brief description of the project)  
This document is intended to serve as a guide for SOP development.

**Health and safety information for materials used:** (briefly describe the hazards associated with the materials and/or equipment OR document your hazard assessment in Section II)  
Review safety resources, such as Safety Data Sheets (SDS) and equipment manuals for information.  
**Examples:**
- Sodium hydroxide is corrosive and can cause serious burns.  
- Procedure involves flammable chemicals-keep away from ignition sources including hot plate.

**Hazard Control Measures:**  
(For lab coat, eye and hand protection, and closed toe/heel shoes must be selected as required by Section D of the ISU Laboratory Safety Manual.)

<table>
<thead>
<tr>
<th>Latex gloves</th>
<th>Insulated gloves</th>
<th>Face Shield</th>
<th>Respirator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrile gloves</td>
<td>Safety glasses</td>
<td>Lab Coat</td>
<td>Fume hood</td>
</tr>
<tr>
<td>Neoprene gloves</td>
<td>Vented goggles</td>
<td>Apron</td>
<td>Biosafety cabinet</td>
</tr>
<tr>
<td>Vinyl gloves</td>
<td>Splash goggles</td>
<td>Dust mask</td>
<td>Glove box</td>
</tr>
<tr>
<td>Closed Toe/Closed Heel Shoes</td>
<td></td>
<td>Flame Resistant Lab coat</td>
<td></td>
</tr>
</tbody>
</table>

Refer to the SDS. Select all personal protective equipment (PPE) that must be worn.

**Other Control Measures:**

**Examples:**
- Practice the procedure with non-hazardous materials so you are prepared and familiar with the process.  
- Samples will need to be carried across the hall for analysis. Place the samples on a sturdy cart to transport. Remove PPE before leaving the lab, replacing PPE in the next lab or use the “one glove” method to transport the material. Do not transfer contaminants to doorknobs, light switches, or other locations.

**Methods:** (Include step by step instructions detailing the process or attach this SOP document to an existing method.)  
Include all the information that will be needed to complete the process or attach existing method.

**Waste Disposal Procedures:**  
Include all waste disposal requirements. Review the EH&S Waste and Recycling Guidelines.  
Remember, HAZARDOUS MATERIALS MUST NEVER GO DOWN THE DRAIN OR INTO THE GARBAGE.  
**Examples:**
- Radioactive waste must be segregated according to the EH&S Solid Radioactive Waste Disposal chart and submitted to EH&S for collection.  
- Pipette tips must be collected in a puncture resistant container.

Reviewed 2022
First Aid Procedures:
List first-aid procedures here. Review resources, such as the SDS, for information.

Examples:
- Hydrofluoric acid skin exposure: remove contaminated clothing, rinse with copious amounts of water, apply calcium gluconate gel, seek medical attention immediately, notify supervisor.
- Eye exposure to chemical: immediately rinse eyes in eyewash for at least 15 minutes, seek medical attention, notify supervisor.

Spill/Release Containment, Decontamination, and Clean Up Procedures:
List actions to take to contain, decontaminate and clean up any spills or releases of chemicals.

Example:
- In the case of a minor material spill: isolate the area, confine the spill, absorb the material, clean the area, dispose of all materials as appropriate and notify supervisor.

Using Substances Requiring Special Procedures?  No □  Yes □
(If Yes; identify authorized personnel, designate a use area and specify specialized safety precautions here. Refer to Section B in the ISU Laboratory Safety Manual for details.)

If the work involves materials or equipment that present a significant risk of exposure or injury, special procedures are required. Examples of high risk chemicals are carcinogens, reproductive toxins, teratogens, highly toxic substances, explosives, controlled substances, select biological agents, radioactive materials, radiation producing devices, and lasers. This list is not all inclusive. Other materials or processes may require special procedures.

Written By:  List the person who created the SOP
Approved By:  Signature of PI or supervisor required

Date:  Date Created
Date:  Date Approved
(PI or Lab Supervisor)

II. HAZARD ASSESSMENT
Use the hierarchy of controls to document the hazards and the corresponding control measure(s) involved in each step of the procedure.

Consider elimination or substitution of hazards, if possible.

Engineering Control(s): items used to isolate the hazard from the user (i.e. fume hood, biosafety cabinet).

Administrative Control(s): policies/programs to limit the exposure to the hazard (i.e. authorizations, designated areas, time restrictions, training).

Required PPE: indicate PPE including specific material requirements if applicable (i.e. flame resistant lab coat, type of respirator or cartridge).

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Engineering Control(s)</th>
<th>Administrative Control(s)</th>
<th>Required PPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid is corrosive and may cause respiratory irritation/damage and tissue damage.</td>
<td>Fume Hood</td>
<td>Adhere to the SOP</td>
<td>Splash goggles, nitrile gloves, lab coat</td>
</tr>
</tbody>
</table>

III. Training Record
Use the following table to record the training associated with this Standard Operating Procedure.

<table>
<thead>
<tr>
<th>Print Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maty Gilham</td>
<td>Maty Gilham</td>
<td>1/3/22</td>
</tr>
</tbody>
</table>