

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:
 (Lab coat, eye and hand protection, and closed toe/heel shoes must be selected as required by Section D of the Drake University Chemical Hygiene Plan and Hazardous Materials Safety Manual.)

<input type="checkbox"/> Latex gloves	<input type="checkbox"/> Insulated gloves	<input type="checkbox"/> Face Shield	<input type="checkbox"/> Respirator
<input type="checkbox"/> Nitrile gloves	<input type="checkbox"/> Safety glasses	<input type="checkbox"/> Lab Coat	<input type="checkbox"/> Fume hood
<input type="checkbox"/> Neoprene gloves	<input type="checkbox"/> Vented goggles	<input type="checkbox"/> Apron	<input type="checkbox"/> Biosafety cabinet
<input type="checkbox"/> Vinyl gloves	<input type="checkbox"/> Splash goggles	<input type="checkbox"/> Dust mask	<input type="checkbox"/> Glove box
<input type="checkbox"/> Closed Toe/Closed Heel Shoes		<input type="checkbox"/> Flame Resistant Lab coat	

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*

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 Drake University Chemical Hygiene Plan and Hazardous Materials Safety Manual.)

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

Date: Date Created

Approved By: Signature of PI or supervisor required
(PI or Lab Supervisor)

Date: Date Approved

I. 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).

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

II. Training Record

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

Print Name	Signature	Date
<i>Chris Nickell</i>	<i>Chris Nickell</i>	<i>3/1/19</i>