

CWU Chemistry Laboratory Specific Standard Operating Procedure

<u>SOP for: (check one)</u>	<input type="checkbox"/> Process	<input type="checkbox"/> Hazardous Chemical	<input type="checkbox"/> Hazard Class of Chemicals
<u>Name of Procedure:</u>			
<u>Applies to Lab (name):</u>		<u>SCI Room #:</u>	
<u>Prepared By:</u>		<u>Date:</u>	<u>Revision:</u>

Process Identification and Hazard Description:

Identify the chemicals, process or equipment involved. If there is any question as to the chemicals produced in the process, you should consider identifying the stock chemicals, intermediates, final compounds and wastes involved, and such factors as use of catalysts, inert compounds, heat, cold, and varied operating pressures which are involved in the process

Controls:

List required methods to control potential exposures, including:

- 1) Use of engineering controls. Engineering controls provide a permanent means of protection and are preferred over other types of controls. Some examples of engineering controls are working in an area with good ventilation (e.g., ducted exhaust from equipment, fume hoods or glove boxes), storing particularly hazardous chemicals in locked cabinets, and using built-in barriers to restrict access to the area or to protect from potentially explosive situations.
- 2) Use of administrative controls, *i.e.*, specific safe practices such as keeping the fume hood sash as low as possible, storing chemicals with secondary containment, substituting pre-formulated liquids instead of powders to be weighed and prepared, hygiene practices such as hand washing, and procedures for removal and disposal of contaminated PPE.
- 3) Use of personal protective equipment (PPE) such as gloves, lab coats, what extremities need coverage, etc., which is the least preferred method of protection if alternatives are available. However, when PPE is required, the PPE must be specified completely, such as the type of glove to be used and whether it is necessary for the entire process or at certain steps.

Equipment checks:

Describe ways to verify that the fume hood and other control system(s) are operating correctly, before using hazardous chemicals

Special Handling and Storage Requirements:

Potentially Hazardous Situations:

Provide guidance for handling spills and identifying if a spill is causing a hazardous situation. For example, laboratory personnel may be able to safely handle a spill of a liter of dilute acid anywhere in the laboratory, but may need to evacuate if 100 milliliters of a toxic chemical is spilled outside a fume hood. This also provides guidance when purchasing a chemical, as to the maximum size of container.

Particularly Hazardous Substances

Provide additional details if "particularly hazardous substances" (highly toxic or dangerous chemicals, carcinogens, reproductive toxicants or select toxins) are used. These additional details should address using specific containment device(s) such as fume hoods or glove boxes, providing authorizations for using the particularly hazardous substance(s), describing additional procedures for decontamination and safely handling contaminated waste materials, and establishing a designated area for the procedure.

Waste Management:

Identify safe disposal methods for routinely generated wastes. This includes describing procedures to neutralize or treat wastes to make handling safer or to reduce the amount of hazardous waste.

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Special Emergency Procedures:

Work may be performed safely while alone in the laboratory? Yes No

Procedure may be performed after normal working hours (M-F, 8-5)? Yes No

Procedure may be left unattended? Yes No

Authorizations: (Describe any requirements for obtaining authorization before being allowed to perform the procedure, operation or activity. IE: Students/ worker must have training documented before performing a certain procedure for the first time. These are required authorizations before a person can independently perform a processes using particularly hazardous substances.)

Step by Step Procedure:

Approved By (PI) :

Date:

PI Signature: _____

EH&S Signature: _____

Date: _____