

Working Alone in the Laboratory

STANDARD OPERATING PROCEDURE (SOP)

Type of SOP: Process Hazardous Chemical Hazardous Class

All personnel who are subject to these SOP requirements must review a completed SOP and sign the associated training record. Completed SOPs must be kept with the UC Davis Laboratory Safety Manual or be otherwise readily accessible to laboratory personnel. Electronic access is acceptable. SOPs must be reviewed, and revised where needed, as described in the [UC Davis Laboratory Safety Manual](#).

Date SOP Written:	Click here to enter a date.	Approval Date:	Click here to enter a date.
SOP Prepared by:	REQUIRED - Insert Preparer's Name CLSC SOP Task Force		
SOP Reviewed and Approved by (name/signature):	REQUIRED - Insert Approver's Name & Signature		
Department:	REQUIRED - Insert Department		
Principal Investigator/ Laboratory Supervisor:	REQUIRED - Insert Name	Phone:	REQUIRED - Insert Phone#
Lab Manager/ Safety Coordinator:	REQUIRED - Insert Name	Phone:	REQUIRED - Insert Phone#
Emergency Contact(s):	REQUIRED - Insert Name	Phone:	REQUIRED - Insert Phone#
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Location(s) covered by SOP:	Building: Room #(s):	REQUIRED - Insert Name REQUIRED - Insert Number	Lab Phone: REQUIRED - Insert Phone#

1. HAZARD OVERVIEW

According to [Prudent Practices in the Laboratory](#), the definition of "alone" is beyond visible or audible range of another individual for more than a few minutes at a time.

Incidents are unexpected by definition. If a person is working alone when an incident occurs, their ability to respond appropriately can be severely impaired. This could result in personal injury, death, and/or catastrophic facility damage. Indeed, working alone in any laboratory creates

increased risk including not having access to basic first aid and the possibility of being unable to summon help in an emergency.

If the design of your workspace/laboratory makes both audible and visual range questionable, contact the Chemical Hygiene Officer or researchsafety@ucdavis.edu for consultation.

2. HAZARDOUS CHEMICAL(S)/CLASS OF HAZARDOUS CHEMICAL(S) RESTRICTIONS

Dispensing, manipulating or quenching Pyrophoric Materials are prohibited while alone in the laboratory. Using Acutely Toxic Gases are prohibited while alone in the laboratory.

REQUIRED - Identify any specific chemical(s) (e.g., HF) or class(es) of hazardous chemicals (e.g., potentially explosive compounds) that may not be used or handled while alone in the laboratory.

3. ENGINEERING/VENTILATION CONTROLS & EQUIPMENT RESTRICTIONS

REQUIRED - Identify any specific equipment, instrumentation, engineering controls, or ventilation controls that may not be used while alone in the laboratory. If activities involving elevated pressure or vacuum are allowed, define the pressure limits.

4. ADMINISTRATIVE CONTROLS & RESTRICTIONS

The following elements are required:

1. Complete the [UC Laboratory Safety Fundamentals](#) (or approved equivalent) training prior to working in the laboratory;
2. Complete laboratory-specific safety orientation and training on laboratory-specific safety equipment, procedures, and techniques to be used, including any applicable laboratory-specific Laboratory Safety Plan(s), prior to receiving unescorted access to the laboratory;
3. Demonstrate competency to perform the procedures to the Principal Investigator (PI), Laboratory Supervisor, laboratory-specific Safety Officer, or trainer;
4. Be familiar with the location and content of any applicable Safety Data Sheets (SDSs) for the chemicals to be used (online SDSs can be accessed from [Chemwatch](#));
5. Implement good laboratory practices, including good workspace hygiene;
6. Inspect all equipment and experimental setups prior to use; and
7. Follow best practices for the movement, handling, and storage of hazardous chemicals (see Chapters 5 and 6 of [Prudent Practices in the Laboratory](#) for more detail). An appropriate spill cleanup kit must be located in the laboratory. Chemical and hazardous waste storage must follow an appropriate segregation scheme and include appropriate labeling. Hazardous chemical waste must be properly labeled, stored in closed containers, in secondary containment, and in a designated location.

The following are also required for working alone in a laboratory:

8. Minors (*i.e.*, under age 18) are not allowed to work alone in the laboratory;
9. Mobile contact information (*e.g.*, PI/Laboratory Supervisor, Department Safety Coordinator, Laboratory Manager, Laboratory Safety Coordinator, etc.) must be available to any personnel allowed to work alone in the laboratory in case of emergency. Office phone numbers are not sufficient; and
10. No deviations from the restrictions described in this SOP are allowed without documented approval from the Principal Investigator/Laboratory Supervisor.

INSERT IF APPLICABLE - Describe any additional administrative controls required when working alone in the laboratory.

The following activities and laboratory processes are **prohibited** while alone in the laboratory:

REQUIRED - Insert descriptions of any restrictions on procedure/quantity/unattended operations/etc.) while alone in the laboratory. This may include times of day/night when working alone is prohibited.

REQUIRED - Insert description of any additional restrictions on working alone for undergraduates for your laboratory.

5. SPILL AND EMERGENCY PROCEDURES

Follow the guidance for chemical spill cleanup from [SafetyNet #13](#) and/or the [UC Davis Laboratory Safety Manual](#), unless specialized cleanup procedures are described below. Emergency procedure instructions for the UC Davis campus and UCD Medical Center are contained in the [UC Davis Laboratory Safety Manual](#) and the [Emergency Response Guide](#) (which must be posted in the laboratory). All other locations must describe detailed emergency procedure instructions below.

If an incident occurs when someone is working alone, the PI/Lab Manager and lab personnel **must** review the process and determine whether or not changes need to be made to the process. The lab policy on working alone should also be reviewed.

Cleaning up a chemical spill while alone in the laboratory can present additional challenges. Before proceeding with spill cleanup ensure that you have identified all the hazards associated with the chemical spill and any other ongoing laboratory activities/equipment. Assess the risks posed by the spill and other hazards. Only proceed with spill cleanup if the risks can be effectively managed, you have appropriate Personal Protective Equipment (PPE), you have the skills to clean up the spill properly, and you choose to complete the cleanup procedure.

INSERT IF APPLICABLE - Descriptions of any specialized spill clean up or emergency procedures to be followed when working alone in the laboratory.

INSERT IF APPLICABLE - Descriptions of any specialized emergency procedures for locations outside of the UC Davis main campus and the UCD Medical Center campus.

6. AREA RESTRICTIONS

INSERT IF APPLICABLE - Description(s) of area(s) in the laboratory that may not be occupied while alone in the laboratory.

7. ADDITIONAL INFORMATION & RESTRICTIONS

INSERT IF APPLICABLE - Describe any additional restrictions on laboratory work when alone in the laboratory. Provide any additional laboratory-specific information regarding working alone in the laboratory.

Documentation of Standard Operating Procedure Training

(Signature of all users is required)

- ✓ Prior to **Working Alone in the Laboratory**, laboratory personnel must be trained on the laboratory-specific activity and chemical restrictions that must be followed when working alone.
- ✓ Ready access to this SOP must be made available.
- ✓ The Principal Investigator (PI), or the Laboratory Supervisor if the activity does not involve a PI, must ensure that their laboratory personnel have attended appropriate laboratory safety training or refresher training within the last three years.
- ✓ Training must be repeated following **any** revision to the content of this SOP. Training must be documented. This training sheet is provided as one option; other forms of training documentation (including electronic) are acceptable but records must be accessible and immediately available upon request.

Designated Trainer: *(signature is required)*

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

Name	Signature	Trainer Initials	Date