

UC SANTA BARBARA

Chemical Hygiene Plan

Section I: Laboratory-Specific Chemical Hygiene Plan: Standard Operating Procedures

Per Cal/OHA regulations, a Chemical Hygiene Plan must include Standard Operating Procedures (SOPs) that pertain to the storage and use of the hazardous chemicals in your laboratory. The following steps should be followed in order to complete this requirement.

1. **Determine which SOPs you need:** Compare your chemical inventory and lab processes against the [UCSB Standard Operating Procedures library](#). There, SOP templates are available for most hazard classes, a number of specific chemicals, and certain laboratory processes. Additionally, a blank SOP template is available. If you require an SOP template that is not available in the library, feel free to contact EH&S for assistance.
2. **Customize the SOP templates you selected:** Sections in red on the template must be filled out to reflect the details specific to your research group. Specifically, the *Laboratory Specific Information* section must be filled out to generate a Cal/OSHA compliant SOP. This can be very detailed if so desired, but in many cases, this can be satisfied by just a few sentences. [Examples](#).
3. **Add completed SOPs to the end of this document.**
4. **PI completes the Certification Page below**
5. **Laboratory workers review the SOPs, as well as the UCSB Chemical Hygiene Plan, and sign off on the Laboratory Worker Training Record page below.**

Standard Operating Procedure Library Certification Page

PI/Laboratory Supervisor Name: David Bothman

Applicable Laboratory Locations (Building, Room #):

Microfluidics Lab - Elings 3430

Innovation Workshop - Elings 2448

PI/Laboratory Supervisor Signature:

I certify that I have reviewed and approve the attached Laboratory Specific Chemical Hygiene Plan with Standard Operating Procedures for laboratory operations being conducted in the locations noted above.



Signature: _____

Standard Operating Procedure General Information

The following apply to all chemicals unless specifically noted in the customized SOP. Any additional requirements will also be noted in the SOP:

Engineering Controls:

Fume Hood: All chemicals should be transferred and used in an annually certified chemical fume hood, in an effort to keep exposures as low as possible. If your specific protocol does not permit the handling of certain chemicals in a fume hood, contact EH&S to determine whether additional respiratory protection and/or specialized local ventilation is warranted.

Safety Shielding: Shielding is required if there is a significant risk of explosion, implosion or splash. This risk can be due to the nature of the chemicals involved, the reaction conditions (temperature, pressure) or scale.

Storage: All chemicals should be stored upright, tightly sealed, and in a cool, dry, and well ventilated space. Segregate incompatible materials from each other based on information from the SDS and as described in the Chemical Hygiene Plan. All containers must be labeled in English with the name of the material (no formulas or acronyms) and all relevant hazard statements (e.g. corrosive, flammable, etc.)

First Aid and Emergencies:

Fire: DO NOT use water to put out a fire. A class ABC fire extinguisher can be used to extinguish most laboratory fires. If pyrophoric or water reactive metals are involved in the fire, use a class D extinguisher.

Spills: Evacuate the location where the spill occurred. Notify others in the areas of the spill, including your supervisor. Notify EH&S in case of personal exposure. If the spill is <1 Liter and of a known material of limited toxicity, flammability and volatility, post someone just outside of the spill area, don proper PPE, and clean the spill following the procedure in the Chemical Hygiene Plan Chapter 4 and the UCSB Emergency Flip Chart. Otherwise, call EH&S at X3194, or 911 if there is immediate danger to life, health or property.

Exposures:

Skin or eye contact: Remove contaminated clothing and accessories. Flush affected area with water for 15 minutes. If symptoms persist, get medical attention.

Inhalation: Move person to fresh air. If symptoms persist, get medical attention.

Ingestion: Rinse mouth with water. If symptoms persist, get medical attention.

Decontamination: Wear proper PPE, decontaminate equipment and benchtops using soap and water. Dispose of contaminated paper towels as hazardous waste, following the UCSB hazardous waste procedures described in the UCSB Chemical Hygiene Plan.

Waste Disposal: Refer to Chapter 3 of the UCSB Chemical Hygiene Plan.



**Please append your laboratory specific
Standard Operating Procedures here.**
