

University of Miami

CHEMICAL HYGIENE PLAN

Office of Environmental Health and Safety (EHS)

P.O. Box 016960

Miami, FL 33101

305-243-3400

The University of Miami through the Office of Environmental Health and Safety (EHS) has prepared this Chemical Hygiene Plan. It is based on the requirements of the OSHA's Occupational Exposure to Hazardous Chemicals in Laboratories; Final Rule, commonly referred to as OSHA's Lab Standard (29 CFR §1910.1450). The Chemical Hygiene Plan includes the following components:

1. Laboratory Safety Manual

This document contains training and reference information for all employees working in the laboratory. Any laboratory employee not having access to a copy of this document should contact EHS.

2. Responsibilities

The implementation of the Chemical Hygiene Plan requires the cooperation of administrators and researchers throughout the University. Their responsibilities include the following:

3. Office of Environmental Health and Safety (EHS)

EHS primary function is to support and assist departments and employees with issues concerning health and safety in the work place. The Director of EHS is Mr. Kenneth P. Capezuto. The University's Chemical Hygiene Officers are Jairo Betancourt, Raul F. Garcia-Casariago, C.S.P., and Vaughan Munro.

During regular working hours these individuals are available by telephone at 305-243-3400. At all other times, they can be reached through the Public Safety Dispatchers (Medical Campus, 305-243-6000; Coral Gables Campus, 305-284-6666, RSMAS Campus; 305-710-7991).

The Chemical Hygiene Officers' duties include, but are not limited to:

- Monitoring the purchase, use, and disposal of chemicals in the University's laboratories.
- Assuring that the appropriate audits and records of hazardous waste disposal are maintained and that laboratory safety assessments (laboratory safety inspections), are performed periodically and the appropriate records kept.
- Assisting Principal Investigators in chemicals project development, the implementation of the Standard Operating Procedures (SOP), and the laboratory facility design
- Advising laboratory personnel and administration about proper handling and disposal procedures in accordance with federal, state, and local regulations

4. Principal Investigator

The Principal Investigator (PI) has the ultimate responsibility for all activities conducted in the laboratory including chemical safety. These responsibilities include, but are not limited to:

- Making sure that all laboratory employees are appropriately trained for the type of procedures they will be conducting.
- Ensuring that all laboratory employees know and abide by this Chemical Hygiene Plan.
- Making the Laboratory Safety Manual available to all employees so that they are familiar with its contents.
- Ensuring the availability and correct use of the appropriate personal protective equipment at all times.
- Performing routine chemical hygiene and housekeeping inspections and taking the proper corrective action as necessary. Contact EHS for further guidance as necessary.
- Designating a Laboratory Supervisor to assume responsibility for chemical hygiene in the absence of the PI.

5. Laboratory Supervisor

The Laboratory Supervisor shall assume responsibility for chemical hygiene in the absence of the PI. These responsibilities include, but are not limited to those listed for the PI

6. Laboratory Employee

The Laboratory Employee is an individual employed in a laboratory Workplace who may be exposed to hazardous chemicals in the course of his or her assignments. The responsibilities of the Laboratory Employee include, but are not limited to:

- Planning and conducting each laboratory procedure or experiment in accordance with this Chemical Hygiene Plan and with all applicable University policies and procedures.
- Attending the mandatory training offered by the Laboratory Supervisor and EHS pursuant to the UM Right-To-Know and Hazard Communication Policy.
- Developing good personal working habits, including the correct use of appropriate personal protective equipment at all times.
- Following the use and handling procedures listed on chemical labels and in Safety Data Sheets (SDS).
- Following instructions set forth by the PI, Laboratory Supervisor, and the Chemical Hygiene Officers.

7. Training

Any employee working in a laboratory must have the necessary education and background to responsibly perform all routine procedures used in that particular laboratory. The PI is responsible for providing the necessary chemical agent and procedure specific training that will allow the Laboratory Employee to carry out his/her duties in a safe manner. This training must include, but not be limited to the following:

- Instruction on the type of research procedures performed in the laboratory.
- Training in the use of personal protective equipment.
- Information on the use and location of safety equipment.
- Procedures for emergency response and spill control.
- Review of the Right-To-Know and Hazard Communication Policy.

8. Right-To-Know and Hazard Communication Policy

All employees working in the laboratory must attend the training sessions pursuant to the Right-To-Know and Hazard Communication Policy. This Policy defines the requirements for informing and training employees on their right to know the hazards in the workplace. It consists of sections on chemical inventories, employee rights, SDS/MSDS, labeling, and training. All employees must complete the Right-To-Know and Hazard Communication Policy checklist. See Appendix A.

9. Standard Operating Procedures

The Principal Investigator (PI) has the ultimate responsibility to instruct laboratory personnel of the appropriate research procedures. When using chemicals, the PI should prepare written Standard Procedures (SOP) outlining the necessary precautions to safely conduct research.

An SOP is a set of specific guidelines designed to address the methods that will be used, the safe handling of chemical

agents, and access restrictions to the research area. The SOP should address, but not be limited to, the following practices:

- The name of the chemical(s)
- Assignment of responsibility as appropriate to individuals and departments.
- Training of laboratory personnel.
- Methods used.
- Minimization of contact by any route of exposure (inhalation, ingestion, skin contact, mucous membrane contact, or accidental injection).
- Engineering controls including ventilation requirements.
- Use of personal protective equipment. If respiratory protection is necessary, the Laboratory Supervisor must require the laboratory Employee to comply with the University's Respiratory Protection Program.
- Decontamination procedures.
- Waste disposal procedures.
- Medical surveillance or monitoring of personnel as required.

- Access restrictions.
- Establishment of an emergency plan.
- Regulatory compliance as necessary.

Researchers using extremely hazardous chemicals are required to submit an SOP to EHS for review and approval before conducting activities. Contact EHS for additional information.

10. Exposure Assessment and Medical Consultation

The University, through EHS, will conduct an exposure assessment under the following circumstances:

- As a consequence of a laboratory procedure, when there is a reasonable suspicion that an employee has sustained an overexposure to a toxic substance (based on OSHA PEL or ACGIH and TLV, as applicable) or
- in the event of an exposure resulting from a chemical spill

The University, through EHS, allows for medical evaluation, including a medical surveillance program for a Laboratory Employee as required by the appointed occupational physician, whenever an exposure evaluation reasonably indicates that the employee has sustained an overexposure to a hazardous chemical. Expenses associated with the medical evaluation and surveillance will be paid by the Laboratory Employee's Department.

Recordkeeping

EHS and the appropriate personnel office will keep records of all exposure evaluations, medical evaluation and surveillance program visits for the duration of the employment of that particular Laboratory Employee, plus thirty (30) years.

Appendix A

[Occupational Exposure to Hazardous Chemicals in Laboratories; Final Rule, 29 CFR'1910.1450 \(OSHA Laboratory Standard\).](#)