

Chemical Hygiene Plan for Laboratories

As outlined in the Occupational Safety and Health Administration's Code of Federal Regulations 29CFR 1910.1450, a Chemical Hygiene Plan must be developed for all laboratories that use hazardous chemicals. The purpose of this plan is to define work practices and procedures to ensure that all laboratory occupants are protected from any health hazards associated with the use of hazardous chemicals.

"Hazardous chemical" means a chemical for which there is statistically significant evidence, based on at least one study conducted in accordance with established scientific principles, that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic systems, and agents which damage the lungs, skin, eyes, or mucous membranes.

Each laboratory, principal investigator, or department must develop a Chemical Hygiene Plan. Rice University's Safety Policies and Procedures manual may be included as part of the plan, but may not be used in place of the Chemical Hygiene Plan.

The following outline is intended to assist the laboratory, principal investigator, or department in plan development. Each plan must be updated annually or as procedures or personnel change. Attached is an outline which can be used for a Chemical Hygiene plan. This outline along with the Sponsored Research RISC form (<http://osr.rice.edu/template.cfm?pageid=1012>) should be completed, maintained and updated as personnel or research changes.

Chemical Hygiene Plan Outline

Date of Plan: _____

Department: _____

Building: _____

Laboratory Room Number: _____

Prepared by:

PI: _____

Reviewer: _____

All plans must contain the following information. This outline has been developed to assist you in developing the plan for the laboratory.

1. Provide a copy of the Standard Operating Guidelines (SOG's) for each hazardous procedure in the laboratory. Chemical storage methods, waste disposal procedures, and special personal protective equipment should be included in the plan. Also, describe any necessary control measures, including the use of fume hoods, localized exhaust, personnel protective equipment, laboratory safe refrigerators and good hygiene practices for the use of hazardous materials.
2. Fume hood exhausts are monitored by: _____ electronic controls and or _____ visual aids to ensure the equipment is functioning properly.

3. Prior to working in the laboratory, employees are trained on the proper handling and use of hazardous chemicals. _____ is
Name and/or position
responsible for documenting and conducting laboratory training. Training will be conducted at least _____.
Time frame

In addition to specific laboratory safety training, all students and employees have attended a laboratory safety training class provided by the PI, Lab Manager or the class which is provided annually by the Rice University Environmental Health and Safety Department. If biosafety level 2 (BL2) research is conducted in the laboratory all personnel must have also attended BL2 training. _____
Training provider

4. Labels are to remain on all containers at all times. If the original label is no longer affixed, the chemical hazards information is provided on the container. All chemical information is in the English language

_____ is responsible for ensuring the labels remain on the containers.
Name and/or position

5. All incoming containers are dated upon receipt and re-dated when opened. Peroxide forming compounds are not kept in the laboratory for a period longer than six months. _____ is responsible for
Name and/or position
ensuring that all containers are dated.

6. When a chemical is no longer needed in the laboratory, the Environmental Health and Safety Department is contacted to remove the chemical from the laboratory. All spent chemical containers located in the laboratory are properly labeled. Only compatible materials are placed in like containers. Every effort is made to order and keep the minimum amount of materials necessary for use during research. _____ is responsible
Name and/or position
for chemical disposal in the laboratory.

7. Secondary containers are used for the transportation of chemicals when being hand-carried.

Approved secondary containers available are;

and are located in:

_____ is responsible for maintaining the availability
Name and/or position of secondary containers.

8. Eye wash stations are tested at least quarterly. A record of this testing is maintained in _____.

(Location)

9. Spill kits are available in the laboratory. The kits are appropriate for each type of spill that may occur. Chemical spill kits are located _____ and are maintained by

Name and/or position

10. An Emergency Contact List is posted on **each** door of the laboratory. The Rice template for emergency contact or similar form is in place (<https://ehs.rice.edu>). The phone numbers are updated as necessary.

_____ is

Name and/or position

responsible for maintaining and updating the phone list. In addition to the emergency contact numbers, all special information about the laboratory is also posted.