



The University of Georgia

Environmental Safety Division

Chemical Hygiene Plan

A chemical hygiene plan is a written program developed to established procedures, protective equipment and standard work practices that promote a safe work environment for employees handling hazardous chemicals in the workplace. At the University of Georgia, laboratory personnel are responsible for the preparation of their own Chemical Hygiene Plan. The plan may cover one or more rooms / laboratories associated with a work group and should consider all safety and health issues when work involves the use of hazardous chemicals.

The Chemical Hygiene Plan provided is a template that can be used by any University of Georgia laboratory. This plan was developed to meet the guidelines of 29 CFR 1910.1450, AOccupational Exposure to Hazardous Chemicals in Laboratories,@ a standard issued by the Occupational Safety and Health Administration (OSHA). Filling in the specific information for your laboratory will complete this plan. Each laboratory must designate a Chemical Hygiene Officer to implement the plan. The plan must then be reviewed with everyone working in the laboratory and made readily available to those employees. The plan must be reviewed at a minimum, annually, by the designated Chemical Hygiene Officer, Principal Investigator and Laboratory Supervisor. Each person named within the Chemical Hygiene Plan should have a copy of the UGA Chemical & Laboratory Safety Manual, which is referenced in this plan (www.esd.uga.edu) .

Principal Investigator:

Laboratory Supervisor / Manager:

Department / Room No.:

Building:

Laboratories / Rooms Covered by this plan:

Designated Chemical Hygiene Officer:

Date:

Annual Review Date:

Please Initial After Reviewing: _____ (CHO, PI, Lab Supervisor, other reviewers)

I. Employee Information and Training

This laboratory provides personnel with information and training to ensure that they are aware of the hazards associated with the chemicals present in their work area. Each new employee will review the Chemical Hygiene Plan annually. Chemical-Specific Right to Know training is given to each new employee at the time of initial assignment to a work area where hazardous chemicals are present and prior to the introduction of a new chemical or hazard in the workplace. Chemical-Specific Right to Know Training complies with the State of Georgia's *Public Employees Hazardous Chemical Protection and Right to Know Act of 1988 (Official Code of Georgia Annotated, Title 45, Chapter 22)*.

The Environmental Safety Division offers a two-hour Chemical-Specific Right to Know Training class once a month, please contact at 542-0113 for more information. A training course can be created for individual laboratories by Environmental Safety if the need exists. Training documentation for each employee will be maintained in a personnel file, unified training file, etc.

II. Circumstances That Require Approval

This section is optional since there may not be a circumstance that requires prior approval. In some situations, approval may be necessary from the Principal Investigator, Chemical Hygiene Officer, Chemical & Laboratory Safety Committee or the Environmental Safety Division, prior to use of a particularly hazardous substance. If there are circumstances that require approval they should be listed below.

Circumstances Requiring Prior Approval

Approval Procedures / By Whom

III. Standard Operating Procedures (SOPs) for Working with Hazardous Chemicals

This laboratory follows guidelines and policies defined in the University of Georgia=s Chemical & Laboratory Safety, Radiation Safety, Hazardous Materials and Biosafety Manuals. Laboratory personnel may write their own SOPs or they may reference other sources (Example: guidelines written in American Chemical Society=s *Safety in Academic Chemistry Laboratories*).

Standard Operating Procedures are located in: (i.e., **Appendix A** of the UGA Chemical & Laboratory Safety Manual, lab specific SOPs, etc.)

IV. Criteria for Use of Control Measures

Control measures must be implemented to ensure exposure control when using hazardous chemicals in a work area. Such control measures include the use of personal protective equipment, engineering controls such as chemical fume hoods, and hygiene practices. This laboratory determines hazards and implements control measures by referencing chemical specific Material Safety Data Sheets (MSDS), utilizing the UGA Chemical & Laboratory Safety Manual, and through consultation with the UGA Environmental Safety Division. Additional resources may be utilized such as *Prudent Practices in the Laboratory and Disposal of Chemicals* and *Safety in Academic Chemistry Laboratories*.

This laboratory has developed criteria describing exposure controls for particularly hazardous substances used in the work area (Example: (1) hot concentrated perchloric acid: using goggles, protective gloves and lab coat, following laboratory protocol; (2) working in a perchloric acid hood: following laboratory protocol, using a wash-down system immediately following procedure completion)

Extremely Hazardous Substance

Exposure Controls in Place

V. Measures to Ensure Proper Operation of Fume Hoods and Protective Equipment

To ensure proper operation of a chemical fume hood, refer to the UGA Chemical & Laboratory Safety Manual (chemical fume hood use section). The Environmental Safety Division performs annual certifications on all UGA fume hoods. Operating procedures are posted on each UGA fume hood and are further described in the Chemical & Laboratory Safety Manual. Contact the Environmental Safety Division for questions concerning the maintenance and operation of fume hoods.

To ensure proper use of other personal protective equipment, follow the recommendations on the chemical specific MSDS and those in the UGA Chemical & Laboratory Safety Manual. The Environmental Safety Division is available for questions concerning the proper selection, use and maintenance of personal protective equipment. Chemical and glove manufacturers have glove charts available to aid with glove selection.

VI. Provisions for Work with Particularly Hazardous Substances: ASelect Carcinogens,@ Reproductive Toxins, Substances with a High Degree of Acute Toxicity

Follow the guidelines of the UGA Chemical & Laboratory Safety Manual for Particularly Hazardous Substances when using or handling Aselect carcinogens,@ reproductive toxins and substances with a high degree of acute toxicity. Standard operating procedures (SOPs) for these substances should be established and assure proper handling procedures in designated areas, chemical containment, procedures for safe removal of contaminated waste, and area decontamination, prior to use of other materials.

Refer to chemical data on the MSDS and contact Environmental Safety for additional information.

VII. Provisions for Medical Consultations and Examinations for Employees

This laboratory provides personnel working with hazardous substances the opportunity to receive medical attention when: Signs or symptoms associated with the hazardous chemical(s) to which they may have been exposed develop. Exposure monitoring indicates that chemical levels are routinely above Permissible Exposure Limits (PELs) for OSHA regulated substances which require exposure monitoring and medical surveillance. There has been a spill, explosion or other occurrence in which an exposure is likely to have occurred. Working with substances for which medical monitoring is appropriate.

Where applicable, workmen=s compensation will be used. Personnel, otherwise may receive medical assistance through their personal health care program and students may receive medical care through the University Health Center. For more information contact your Departmental Secretary, Staff Benefits or Environmental Safety Division.

Additional provisions for medical consultations and examinations:

VIII. Chemical Hygiene Officer

The Principal Investigator, Laboratory Supervisor or Director may be the CHO or may designate someone in their work area as CHO. One person may serve as CHO for an individual laboratory or multiple laboratories in a department. The designated CHO should have completed Laboratory Right to Know Training, Hazardous Waste Management Training and any other pertinent training necessary to oversee the Chemical Hygiene Plan in this laboratory.

As indicated on page 1, the designated CHO for this laboratory is:

CHO e-mail address:

CHO phone number:

CHO campus mail address:

IX. References

The American Chemical Society Committee on Chemical Safety. 1995. **Safety in Academic Chemistry Laboratories**, 6th Edition. The American Chemical Society.

UGA Chemical & Laboratory Safety Committee. 1998 . **UGA Chemical & Laboratory Safety Manual** . 1998 . The University of Georgia.

Web-site Accessibility www.esd.uga.edu

The National Research Council. 1995 . **Prudent Practices in the Laboratory: Handling and Disposal of Chemicals** . National Academy Press.

Reineback, K., Drinkman, D., Wendt, J., Fernandez, L., Myers, J. 1993 . **Chemical Safety and Disposal Guide** , University of Wisconsin-Madison Safety Department, University of Wisconsin System Board of Regents.

X. Important Phone Numbers (*University of Georgia, Main Campus*)

<u>Fire - Police - Ambulance</u>	9-911	
<u>UGA Environmental Safety Division</u> Radiation Safety, Chemical & Laboratory Safety, Occupational Safety, Environmental Health	2-5801	(706) 542-5801
<u>UGA Biosafety Office</u>	2-0112	
<u>UGA Police</u>	2-2200	
<u>State Poison Control Center</u>	9-1-800-282-5846	(throughout Georgia)