



THE GEORGE
WASHINGTON
UNIVERSITY
WASHINGTON DC

Responsible University Official:
Director, Office of Risk Management
Responsible Office: Office of Risk
Management
Origination Date: May 1, 1990

CHEMICAL HYGIENE POLICY

Policy Statement

Departments operating laboratories containing potentially hazardous chemicals are required to appoint a Chemical Hygiene Officer to implement the University's Chemical Hygiene Plan, including adoption of general departmental precautions and guidelines for safe use of chemicals, and must instruct personnel on proper laboratory procedures. People using laboratories are responsible for knowing the Chemical Hygiene Plan for the University or the Medical Center, and must attend annual laboratory safety training.

Reason for Policy/Purpose

People who work in scientific laboratories are exposed to a greater variety of possible hazards than in most workplaces. Some of those hazards call for precautions not ordinarily encountered elsewhere. The purpose of this policy is to prevent chemical-related injuries by promoting safe and healthy laboratory environments, and to comply with the Occupational Safety and Health Administration (OSHA) Laboratory Standard (29 CFR 1910.1450: Occupational Exposures to Hazardous Chemicals in Laboratories).

Who Needs to Know This Policy

Faculty, staff and students

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Policy/Procedures

Chemical Hygiene Plans

The University has developed the [Chemical Hygiene Plan](#), and the Medical Center has developed a Chemical Hygiene Plan contained within the [Health and Safety Manual](#), to promote the safety of people working in laboratories. The Plans provide guidelines for prudent practices, procedures for the use of laboratory chemicals, and work practices regarding laboratory equipment and personal protective equipment that are capable of protecting employees from the health hazards presented by the hazardous chemicals used in the workplace. The Plans were written in response to the federal Occupational Safety and Health Administration's (OSHA) Occupational Exposures to Hazardous Chemicals in Laboratories (the OSHA Lab Standard).

Copies of the University's [Chemical Hygiene Plan](#) are available in each laboratory or through the Office of Risk Management. Copies of the Medical Center's Chemical Hygiene Plan are available in each laboratory, on-line in the [Health and Safety Manual](#), or through the Office of Research Safety, Bio-Security and Emergency Management.

Departmental Precautions and Guidelines

Because few laboratory chemicals are without hazards, general precautions for handling all laboratory chemicals should be adopted, rather than specific guidelines for particular substances. This will help avoid underestimating the risk of chemicals being used, because all chemicals will be treated as potentially hazardous. However, laboratories working with Select Agents and Toxins are required to work with the Office of Risk Management, or the Office of Research Safety, Bio-Security and Emergency Management as appropriate, to develop specific handling guidelines for any toxins used.

The most effective way to prevent injury from laboratory chemicals is to minimize the duration and extent of exposure to chemicals. Exposure may occur through inhalation, ingestion, skin absorption, or injection. To avoid or minimize these exposures, laboratory employees should prevent substances from escaping into the working atmosphere by the use of chemical fume hoods and other ventilation devices, and direct contact with skin should always be avoided.

Chemical Hygiene Officer

Each department manager must appoint a Chemical Hygiene Officer (CHO) to serve a leadership role in laboratory safety. The names of each department's CHO should be

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submitted to the Office of Risk Management no later than September 1st of each year. In the Medical Center, each laboratory Principal Investigator serves as the Chemical Hygiene Officer.

The primary responsibility of the CHO is to implement the Chemical Hygiene Plan in compliance with OSHA regulations in their respective laboratories. The CHO is also responsible for instructing personnel on proper laboratory procedures, properly labeling all chemicals, maintaining Material Safety Data Sheets (MSDS) for all laboratory chemicals, specifying personal protective equipment, conducting regular safety inspections, and performing hazardous waste disposal in accordance with the University's [Hazardous Waste Management Plan](#) or the Medical Center's Hazardous Waste Management Plan (contained within the [Health and Safety Manual](#)).

The Chemical Hygiene Officer is also responsible for preventing chemical exposure by laboratory employees beyond the permissible exposure limits (PEL) provided for each potentially hazardous substance by OSHA. Some extremely hazardous substances (provided in 29 CFR Part 1910) require monitoring and medical surveillance if exposure exceeds the provided Action Level (see Definitions below). By keeping chemical exposures below the specified PEL and Action Levels, laboratory workers can prevent adverse effects of hazardous substances in their work area. The Medical Center performs routine annual surveys to protect employees from exposure to levels beyond the PEL.

Employee Responsibilities

All University and Medical Center laboratory employees should be familiar with the hazards associated with chemicals in their work area, the Chemical Hygiene Plan that applies to them, and the chemical procedures and guidelines established by the respective laboratory or department. All University laboratory employees and research assistants must attend one of the annual Laboratory Safety Seminars presented by the Office of Risk Management. Medical Center employees must attend annual training presented by the Office of Research Safety, Bio-Security and Emergency Management.

Medical Attention for Chemical Exposure

The University will provide all employees working with hazardous chemicals an opportunity to receive medical attention if they exhibit symptoms of exposure to a hazardous chemical in the laboratory or experience a spill, leak, or other occurrence resulting in the likelihood of a hazardous exposure. Medical Center employees working with hazardous Chemicals are part of the Employee Health Program, and are entitled to medical attention if they exhibit symptoms of exposure to a hazardous chemical.

This policy is supported by the procedures set forth in the University's [Chemical Hygiene Plan](#) and the Medical Center's Chemical Hygiene Plan in the [Health and Safety Manual](#).

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Forms

[The Office of Risk Management: Material Safety Data Sheet Links](#)

Website Address for This Policy

[GW University Policies](#)

Contacts

Subject	Contact	Telephone	Email Address
Chemical Hygiene	Risk Management	202-994-3265	risk@gwu.edu
	Office of Research Safety, Bio-Security and Emergency Management	202-994-3282	safety@gwumc.edu

Definitions

Chemical Hygiene Officer	A designated employee who is qualified by training and experience to provide technical guidance in the development and implementation of the provisions of the Chemical Hygiene Plan.
Permissible Exposure Limits	An established limit of a substance that an employee can be exposed to day after day for 8 hours without suffering any adverse health effects.
Action Level	A concentration designated in 29 CFR Part 1910 for a specific extremely hazardous substance, calculated as an 8 hour time-weighted average, which requires certain safety precautions such as exposure monitoring and medical surveillance.

Related Information

[Chemical Hygiene Plan](#) (University)

[Hazardous Waste Management Plan](#) (University)

[Health and Safety Manual](#) (Medical Center)

[Personal Protective Equipment Policy](#)

[Policy for Compliance Regarding Select Agents and Pathogens](#)

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[OSHA 29 CFR 1910.1450: Laboratory Standard](#)

Who Approved This Policy

Louis H. Katz, Executive Vice President and Treasurer
Beth Nolan, Vice President and General Counsel
John F. Williams, Provost and Vice President for Health Affairs

History/Revision Dates

Origination Date:	May 1, 1990
Last Amended Date:	March 31, 2005
Next Review Date:	April 30, 2009