

## ROUTES OF EXPOSURE

1. Inhalation
2. Ingestion
3. Eye or skin contact
4. Puncture, needle sticks

## NO EATING, DRINKING, SMOKING

No eating, drinking, or smoking is allowed in any area where hazardous materials are stored or used.

## SIGNS AND SYMPTOMS OF EXPOSURE

Signs and symptoms of chemical exposure may include breathing difficulty, coughing, change in skin color, irritation of eyes/nose, headache, nausea, dizziness, sneezing, diarrhea, sweating, tightness of chest, coordination difficulty.

Review Standard Operating Procedures if signs and symptoms of chemical exposure are occurring. Seek medical review if occupational exposure to chemicals occur. Employees should file accident reports with the Human Resources Department. Students should file accident reports at the Potter Health Clinic.

## LABORATORY DECOMMISSIONING

Each Department must institute a check-out procedure for staff and students that assures that all hazardous materials are properly maintained, reallocated, or disposed properly.

## HAZARDOUS WASTE DISPOSAL

See the URI Laboratory Waste Guide for instructions. Call Safety and Risk to schedule a waste pick-up or a laboratory clean-out.

## WHAT DOES YOUR LAB DO TO COMPLY?

1. Develop a laboratory specific chemical hygiene plan using the guidelines in the URI Chemical Hygiene Plan.
2. Adopt good chemical hygiene and prudent laboratory practices.
3. Keep an accurate and up-to-date chemical inventory.
4. Use the inventory to identify acutely hazardous, carcinogenic and reproductive toxins and designate areas for use.
5. Use appropriate personal protective equipment (PPE).
6. Write Standard Operating Procedures (SOPs) for each lab to minimize occupational exposure to hazardous chemicals, carcinogens and reproductive toxins.
7. Use acutely hazardous chemicals in fume hoods.
8. Store chemicals by hazard class.
9. Inspect container condition frequently.
10. Label all chemical containers with chemical name and hazard.
11. Maintain MSDS (Material Safety Data Sheet) for each hazardous chemical.
12. Medical Monitoring is required if signs and symptoms of exposure occur.
13. Air Monitoring is required if signs or symptoms of exposure occur.
14. Successfully complete the laboratory inspection conducted by Safety & Risk.
15. Attend annual training.
16. Follow the URI Laboratory Waste Guide and manage hazardous waste correctly.
17. Plan ahead to prevent accidents.
18. Practice Pollution Prevention and Waste Minimization.

**EMERGENCIES  
CALL  
CAMPUS POLICE  
874-2121**

## University of Rhode Island Chemical Hygiene Plan Implementation Guide



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## INTRODUCTION

In 1991, the Occupational Health and Safety and Health Administration enacted 29CFR1910.1450, a standard entitled "Occupational Exposure to Hazardous Chemicals in Laboratories". This regulation requires all employers to implement exposure control programs and to convey chemical health and safety information to laboratory employees working with hazardous chemicals.

Specific provisions of the standard require:

- Laboratory inspections;
- Establishment of standard operating procedures for routine and "high hazard" laboratory operations;
- Research protocol reviews for procedures, activities or operations that the employer believes to be of a sufficiently hazardous nature to warrant prior approval;
- Employee exposure assessments if workers display signs and symptoms of exposure;
- Medical consultations/exams if workers have an occupational exposure to hazardous chemicals;
- Employee Training;
- Labeling of chemical containers; and
- The management of chemical information sheets (Material Safety Data Sheets) and other safety reference materials.

The standard's intent is to ensure that laboratory employees are apprised of the hazards of chemicals in their work area, and that appropriate work practices, procedures, and controls are in place to protect laboratory employees from chemical health and safety hazards. This brochure provides a summary of the provisions in the University of Rhode Island Chemical Hygiene Plan.

The URI Laboratory Chemical Hygiene Plan (CHP) has been developed to assure the highest degree of safety and therefore lowest exposure to the risks associated with the use of chemicals. The URI CHP shall be the primary safety guide for all deans, department chairmen, principal investigators, laboratory staff, and students. The purpose of the URI Laboratory Chemical Hygiene Plan is to assist laboratory workers in conducting their research in a safe and productive manner. It provides an institutional model to assure consistent practices for handling, containing, and storing used and unused chemicals. The key to success is careful planning of experiments to prevent accidents and minimize exposure to hazardous chemicals. A copy is available on the website.

## TRAINING

All employees exposed, or potentially exposed to hazardous chemicals while performing their laboratory duties must receive information and training regarding the OSHA Laboratory Standard, the URI Chemical Hygiene Plan, and laboratory safety annually. Training sessions are conducted by the Department of Safety and Risk Management. Call PSPD at 874-5199 to register for a class or call Safety and Risk to schedule a session in your department.

## LABELS

All containers of hazardous materials must be properly labeled with the chemical name and hazard.

## HAZMAT SECURITY

Keep rooms locked when unattended if hazardous materials are present. Allow only authorized personnel to access areas storing hazardous materials. Keep accurate inventories of hazardous materials and laboratory items. Report suspicious activities to Campus Police at 874-2121.

## SHIPPING HAZARDOUS MATERIALS

All packages being offered for transport by commercial carrier, truck, rail, vessel, or airplane must follow USDOT regulations. All packages must be packaged, marked, labeled, and documented properly. See the website for more information.

## LABORATORY SAFETY EQUIPMENT

- All fume hoods and safety showers should be recertified annually. Process a work order with Facilities Services 874-4060 if unit needs service.
- All fire extinguishers should be certified annually. Contact Safety And Risk.
- Plumbed eyewashes should be flushed weekly to remove dust and bacteria.

## MATERIAL SAFETY DATA SHEETS (MSDS)

MSDS provide information on the health hazards and physical hazards of hazardous chemicals. They also contain important emergency and regulatory material. Maintain the MSDS received from chemical manufacturers in the work place for each hazardous chemical. Keep the MSDS accessible to laboratory workers at all times.

## STANDARD OPERATING PROCEDURES (SOPS)

It is the responsibility of the Principal Investigator to write Laboratory-Specific Standard Operating Procedures that describe and document the appropriate usage of hazardous chemicals, reproductive toxins, and carcinogens in his/her lab. The purpose of the SOPs is to prevent occupational exposure to these chemicals.