

# Chemical Safety Storage

 <p>The logo of Fort Lewis College, featuring a circular emblem with a mountain range at the top, a shield in the center divided into four quadrants (top-left: book, top-right: atom, bottom-left: chalice, bottom-right: hand holding a torch), and the text 'FORT LEWIS COLLEGE' and 'ARTES LIBERALES' around the inner border, and 'ESTABLISHED 1911' at the bottom.</p>	<p>Policy identification number: <b>To come...</b></p> <p>File: <b>Safety &amp; Health Policies</b></p> <p><b>Chemical Safety Storage</b></p> <p>Policy Summary</p> <p><b>To ensure chemicals are properly stored according to the associated hazards.</b></p>
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Policy Owner <b>Vice President for Finance and Administration</b>	Approval Date <b>March 22, 2017</b>	Effective Date <b>March 22, 2017</b>
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## I. Policy Statement

Laboratory Supervisors, Laboratory Coordinators and other personnel who work with chemicals are responsible for ensuring chemicals are properly stored according to their properties and associated hazards. Specific Safety Data Sheets must always be consulted when doubts arise concerning chemical properties and associated hazards. Appropriate personal protective equipment must be worn when handling hazardous chemicals. Personnel must be aware of the locations of the safety showers and emergency eyewash stations.

### Chemical Safety Storage Priorities

Most chemicals have multiple hazards and a decision must be made as to which storage area would be most appropriate for each specific chemical. Chemical storage should be prioritized in the following order:

1. **Flammability.** When establishing a storage plan, flammability should be the first consideration. If the material is flammable it should be stored in a flammable cabinet.

2. **Isolate.** If the material will contribute significantly to a fire it should be isolated from the flammables. If there were a fire in the laboratory and response to the fire with water would exaggerate the situation, isolate the water reactive material away from contact with water.
3. **Corrosivity.** Look at the corrosivity of the material and store accordingly.
4. **Toxicity.** Consider the toxicity of the material, with particular attention paid to regulated materials. In some cases, this may mean that certain chemicals will be isolated within a storage area. For example, a material that is an extreme poison but is also flammable, should be locked away in the flammable storage cabinet to protect it against accidental release.

The following basic rules for hazardous chemical storage must be followed by all employees responsible for chemical storage:

1.
  1. Date all chemicals upon receipt.
  2. Maintain a permanent inventory that is verified annually.
  3. Establish a separate and secure storage area for chemicals.
  4. Do not store chemicals in fume hoods or work areas.
  5. Label storage areas and cabinets to identify the hazardous nature of products stored within.
  6. Properly identify all unlabeled products before storing. Secondary container labeling is discussed in the Laboratory Safety and Chemical Hygiene Program document.
  7. Never store flammable chemicals in a standard domestic refrigerator.
  8. The maximum total quantity of flammable and combustible liquids must not exceed 60 gallons within a flammable storage cabinet. The maximum quantity allowed to be kept outside a flammable storage cabinet, safety can, or approved refrigerator/freezer is 10 gallons.
  9. Use secondary containment when storing chemicals on the floor.
  10. Liquids, especially corrosives, should not be stored above eye level.
  11. Chemical storage should always be away from heavily traveled areas.
  12. Stored chemicals should be in a cool and dry location with caps and lids tightly closed; no chemical should be on the outside of the container.
  13. Stored chemicals should be arranged in compatible families rather than in alphabetical order. Extremely hazardous chemicals should be purchased in the smallest quantities possible.
  14. Post emergency telephone numbers in the chemical storage areas.

## **II. Reason for Policy**

Improper storage and handling of chemicals can cause serious physical injury, fire, and property damage.

## **III. Responsibilities**

**For following the policy:** All employees and students

**For enforcement of the policy:** Director of Environmental Health & Safety

**For oversight of the policy:** Provost and Vice President for Academic Affairs, Vice President of Finance and Administration

**For notification of policy:** Policy Librarian

**For procedures implementing the policy:** Academic Departments storing chemicals, Physical Plant Services

## **IV. Definitions**

1.
  1. Laboratory Supervisor: the faculty or staff member responsible for a particular laboratory
  2. ANSI – American National Standards Institute
  3. EH&S – Environmental Health and Safety

## **V. Cross-Referenced Policies**

1.
  1. ANSI Z87.1-2015, American National Standard for Occupational and Educational Personal Eye and Face Protection Devices
  2. CRS §22-3-101-104 Eye Protection Devices
  3. 29 CFR 1910.1450 Occupational Exposure to Hazardous Chemicals in Laboratories
  4. Appendix A to 29 CFR 1910.1450 National Research Council recommendations concerning chemical hygiene in laboratories
  5. Fort Lewis College Laboratory Safety and Chemical Hygiene Program
  6. UCLA Office of Environmental, Health and Safety; Chemical Safety Storage Guidelines

## **VI. Consequences of Non-Compliance**

The Department Chair in consultation with the Dean will determine appropriate consequences for non-compliance according to the provisions in the Faculty Handbook, Part II, Section 17, "Dismissal and other Disciplinary Actions." Disciplinary action up to and including termination as described in the Classified Employees Handbook and Exempt Employees Handbook.