



CHEMICAL SAFETY STANDARD

PURPOSE

The University of Lethbridge, (UofL) is committed to providing a safe and healthy environment to all members of the University Community. This document provides direction on the safe use of chemical substances and compliance with applicable federal and provincial regulations.

STANDARD

The UofL will comply with all legislated requirements for the safe use, storage and disposal of chemical substances at all UofL work sites. Safety and accident prevention practices shall be integrated into University operations, by promotion of safe working practices and awareness through training, education, and the implementation of worksite-specific procedures.

LEGISLATION

The following is a list of the acts and regulations to which employees at the U of L must comply while conducting their various work and research activities at the U of L, on or off-campus. This is not an exhaustive list and additional legislation may apply.

- Alberta Occupational Health and Safety Act, Regulations and Code
- Alberta Fire Code
- Hazardous Product Act and Regulations
- Canadian Environment Protection Act
- Chemical Weapons Convention Implementation Act (Global Affairs Canada)
- Prohibition of Certain Toxic Substances Regulation
- Controlled Drugs and Substances Act
- Nuclear Safety and Control Act
- Human Pathogens and Toxins Act

RESPONSIBILITIES

Senior Management is responsible for:

- Ensuring Supervisors fulfill their responsibilities and for ensuring adequate resources are available for compliance with legislated requirements, this Standard, and applicable University policies and procedures.



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- Ensuring Unit personnel complete appropriate training for the safe use, storage and disposal of chemical substances.

Supervisors are responsible for:

- Ensuring the health and safety of workers and students using chemical substances at UofL work sites by compliance with this Standard, conducting hazard assessments and ensuring that workers and students are informed of the hazards of chemicals used at UofL work sites.
- Ensuring that workers and students receive appropriate training for the safe use, storage and disposal of chemical substances, including but not limited to WHMIS training and job-specific training on chemical hazards.
- Ensuring that chemicals used at the work site are appropriately inventoried, labeled, used, stored and disposed according to this Standard, applicable University Policy and procedures, and legislated requirements.
- Ensuring that workers and students are provided with and use appropriate personal protective equipment to protect them from chemical hazards.

Employees and Students are responsible for:

- Ensuring their own health and safety as well as that of others when using chemical substance in their work or study activities.
- Completing applicable training, as requested and following all procedures, safe work practices, Policies and legislated requirements for the safe use, storage, and disposal of chemical substances.
- Immediately reporting all incidents or injuries involving chemical substances to their Supervisor and Safety Services.

PROCEDURES

The following sections outline procedural requirements for chemical safety.

HAZARD MANAGEMENT

- All workers and students have the “**Right to Know**” about the hazards of their work and study. Supervisors and instructors shall inform workers and students of the hazardous properties of chemicals used at the University of Lethbridge.
- **Hazard assessments** must be completed in accordance with the AB OHS Act, Regulation and Code to ensure that adequate controls are in place for safe handling of chemicals.
- **Standard Operating Procedures** and **Safe Work Practices** shall be completed as appropriate.
- A **Code of Practice** governing the storage, handling, use and disposal of a chemical substance listed in Schedule 1, Table 1 Alberta OHS Code that is present at a work site
 - (a) as pure substance in an amount exceeding 10 kilograms, or



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(b) in a mixture in which the amount of the substance is more than 10 kilograms and at a concentration of 0.1 percent by weight or more.

The code of practice must include measures to be used to prevent the uncontrolled release of the substance and the procedures to be followed if there is an uncontrolled release.

- The University of Lethbridge **Lab Chemical and Safety and Procedures Manual** provides general guidance on chemical safety in the laboratory. All laboratory supervisors are responsible for developing laboratory-specific chemical safety procedures that reflects work activities within their laboratories. All laboratory workers shall, but are not limited to, compliance with the safe practices outlined in this standard as well as the Laboratory Chemical Safety and Procedures Manual.
- Emergency eyewash and shower equipment shall be provided in all areas where chemicals harmful to the eyes or skin are used in accordance with the AB OHS Code, Part 4. Equipment installation and maintenance shall comply with requirements applicable standards and University procedures.

PURCHASING AND ACQUISITION

- Consideration must be given to substituting less harmful materials for those that are known to be hazardous at the time of acquisition. Hazardous materials should be purchased in minimum quantities small enough that they do not have to be stored at the U of L over extended periods of time.
- Hazardous materials can only be ordered by authorized faculty and employees in compliance outlined in the University's **Procurement of Goods and Services Policy**. Restrictions and specific purchasing requirements are outline in the Policy. Departments/work units must be capable of handling the supportive functions and needs as prescribed by policy and legislation for safe handling, storage and disposal.

TRAINING

- No person at the University of Lethbridge shall use chemical substances without **Workplace Hazardous Materials Information System (WHMIS) training**.
- WHMIS Training shall be provided in two parts:
 - Generic WHMIS training from Campus Safety
 - Job-specific training provided by the supervisor, instructor, or Principal Investigator (PI) detailing the safe handling procedures and use of personal protective equipment for chemicals used on the job or in academic course work.

PERSONAL PROTECTIVE EQUIPMENT

- Personal protective equipment (PPE) shall be provided to personnel and students as outlined in the Alberta Occupational Health and Safety Code, WHMIS Safety Data Sheets and as determined by hazard assessment.
- Workers and students shall use and maintain PPE provided to them.



LABELLING

- All chemicals and working reagents shall be appropriately labelled as required by WHMIS and CHEMATIX (see “Inventory” below).
- Any damaged and missing labels will be replaced as soon as practicable.

INVENTORY

- All University departments or work units where chemical substances are used for work, research or academic purposes shall register with Campus Safety for chemical inventory control using the Chematix chemical inventory management system. A departmental administrator shall be appointed to oversee use of CHEMATIX within the department.
- CHEMATIX chemical inventory barcode labels shall be applied to chemical containers.
- Chemical inventory shall be up to date at all times. Chemicals will be added to CHEMATIX upon receipt and removed from CHEMATIX when consumed or disposed.
- Inventory reconciliation must be conducted on a regular basis, at minimum, annually.

STORAGE

- All chemicals must be stored in appropriate chemical storage cabinets segregated by hazard classification and as described in WHMIS SDS.

DISPOSAL

- Disposal of chemicals shall comply with University of Lethbridge hazardous chemical waste disposal procedures and in accordance with applicable legislation.

TRANSPORTATION

- All chemicals shall be packaged, shipped and transported in accordance with UofL procedures and Transportation of Dangerous Goods Regulations.
- Personnel who package, ship and transport regulated dangerous goods must complete Transportation of Dangerous Goods training. Contact Safety Services for advice prior to packaging, shipping and transporting dangerous goods.
- Secondary containment must be used when moving chemicals between locations on campus or any other UofL work sites. Refer to the **Safe Transportation of Hazardous Materials Procedure** for further information.

REGULATORY REPORTING

Chemical Weapons Convention (Global Affairs Canada)

- The Chemical Weapons Convention is an arms control agreement that outlaws the production, stockpiling and use of chemical weapons. The University of Lethbridge is required to submit a



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chemical weapons declaration to the Canadian National Authority annually as required by the CWC Implementation Act.

- **University researchers who use, produce or store chemicals regulated by the CWC in their research or teaching activities must complete a declaration form and submit it to Safety Services for review January 15th annually.**
- Safety Services will submit an Annual Declaration of Past Activities on behalf of the University to the Canadian National Authority prior to February 28th for the previous year's activities. Contact Safety Services for further information.

Prohibition of Certain Toxic Chemicals Regulation (Environment and Climate Change Canada)

- The [Prohibition of Certain Toxic Substances Regulations, 2012](#) prevent potential risks of harm to the Canadian environment and human health by prohibiting the manufacture, use, sale, offer for sale or import of the toxic substances listed below, and products containing them, with a limited number of exemptions.
- The prohibition does not apply to listed toxic substances, or to any products containing them, that are to be used in a laboratory for analysis, in scientific research or as a laboratory analytical standard. **Users of the listed toxic substances for the above purposes are required to report certain information to the Minister as soon as feasible before the use of more than 10 grams of any substance in a calendar year.**
- Separate reports must be submitted every calendar year for each substance. A reporting form is available online to facilitate reporting. Completed report forms must be sent to Safety Services by January 15th annually.
- Safety Services will submit the forms on behalf of the University prior to February 28th for the previous year's activities.

Prohibition of Asbestos and Products Containing Asbestos (Environment and Climate Change Canada)

- The purpose of these regulation is to prevent new asbestos and products containing asbestos from entering Canadian marketplace to protect the health of Canadians.
- The regulations prohibit the import, sale and use of asbestos and the manufacture, import, sale and use of products containing asbestos, with limited exclusions.
- The regulations do not apply to asbestos integrated into a structure or infrastructure before the day on which the Regulations come into force (such as asbestos integrated into buildings and civil engineering works), or to products containing asbestos used before the day on which the regulations come into force (such as equipment installed in a facility, vehicles, ships, and airplanes). The regulations do not apply to asbestos and products containing asbestos in transit through Canada.
- University researchers and staff who manufacture, use, display, or import asbestos or asbestos-containing products must complete the declaration form. Reporting occurs annually in February. Contact Safety Services for further information.



OTHER HAZARDOUS MATERIALS

Radioactive Materials

- The use of nuclear radioactive materials at the University of Lethbridge is must be reviewed by the Radiation Safety Officer and approved by the Joint Biosafety and Radiation Safety Committee.
- Authorized users will be issued an internal permit in compliance with conditions of the University's licence from the Canadian Nuclear Safety Committee, as prescribed by the Nuclear Safety and Control Act and Regulations. Contact the Radiation Safety Officer and refer to the University of Lethbridge Radiation Safety and Procedures Manual for further information.

Biological Pathogens and Toxins

- The use of regulated biological material (pathogens and toxins) at the University of Lethbridge must be reviewed by the Biosafety Officer and approved by the Joint Biosafety and Radiation Safety Committee.
- Authorized users will be issued an internal permit in compliance with conditions of the University's licence from the Public Health Agency of Canada, as prescribed by the Human Pathogens and Toxins Act and Regulations. Contact the Biosafety Officer and refer to the University of Lethbridge Biosafety Code of Practice further information.

Controlled Drugs and Substances

- The use, storage and disposal of controlled drugs and substances used at UofL work sites must be reviewed by the Office of Research Services and Campus Safety.
- Authorized users who receive a licence from Health Canada must adhere to all licence conditions as prescribed by the Controlled Drugs and Substances Act as well as all applicable University policies and procedures.

RELATED DOCUMENTS

- Hazard Management Standard and Procedure
- Standard Operating Procedure Template
- WHMIS and Chemical Safety Program
- Lab Chemical Safety and Procedures Manual
- Biosafety Code of Practice
- Radiation Safety and Procedures Manual
- Emergency Eyewash and Shower Standard
- Excise Canada Ethanol Control Inventory Record



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RESOURCES

- [Safety Services webpage](#)
- [Chematix Chemical Inventory Management System](#)
- [Guide for Developing a Chemical Code of Practice](#)
- [Alberta Occupational Health and Safety Act, Regulation and Code](#)