



HAZARD COMMUNICATION PLAN
(HAZCOM)
Lindenwood University System

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1.3.4. Designees outlined within Lindenwood HazCom Plan must collect the Safety Data Sheet (SDS) for each hazardous chemical used within their work sphere.

1.3.4.1. The SDS Sheet must follow the outlined specifications within Chapter 3 of this HazCom Plan.

1.3.4.2. The SDS sheets must be available at all times to Lindenwood employees, students, official visitors and contractors working or visiting within areas in which regulated materials are stored, used, or transported.

1.3.4.3. Lindenwood employees and students must be trained on how to understand the labeling/SDS layout and the necessary precautions required (as described in Lindenwood University's CHP)

1.4. Exceptions to the Hazard Communication Standard:

The HazCom Plan applies "to any chemical which is kn()-5.5 m i a 3 (n)-0t.6 () /P <</ /hg

- 2.2. Safety Data Sheet (SDS): Written information from the manufacturer of a chemical describing the hazardous ingredients, physical and chemical data, fire and explosion hazards, reactivity, health hazards, precautions for safe handling, and special protection information.
- 2.3. OSHA Occupational Safety and Health Administration: of the US Department of Labor, the federal agency responsible for regulating and enforcing safety and health requirements in the workplace.
- 2.4. Health Hazard: For the purposes of this policy, "health hazard" refers to "a chemical that is classified as posing one of the following hazardous effects: Acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); aspiration hazard. The criteria for determining whether a chemical is classified as a health hazard are detailed in Appendix A of the Hazard Communication Standard (§1910.1200) and §1910.1200(c)." (29 CFR 1910.1450(b))
- 2.5. Toxicity and Health Hazards Toxicology: is the study of the nature and action of poisons. Toxicity is the ability of a chemical molecule or compound to produce injury once it reaches a susceptible site in or on the body. Descriptions of toxicity (e.g. low, moderate, severe, etc.) depend on the amount needed to cause an effect or the severity of the effect. Toxicity hazard is the probability that injury will occur considering the manner in which the substance is used.
- 2.6. GHS: As stated within OSHA's Foundation of Workplace Chemical Safety Programs "In 2003, the United Nations (UN) adopted the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). The GHS includes criteria for the classification of health, physical and environmental hazards, as well as specifying what information should be included on labels of hazardous chemicals as well as safety data sheets...The official text of the GHS can be found on the [UN web page](#)."
- 2.7. NFPA: For the purposes of this document, the National Fire Protective Association structures the labeling parameters Lindenwood utilizes to identify a specific materials fire related measure.

Chapter 2: Hazardous Chemicals and Materials

1. Lindenwood University personnel working within areas where Hazardous Chemicals and Materials

Reactionary procedure
creating hazards from
previously non-
hazardous materials

- Cutting foam, nylon rope or other plastics with a "hot knife"
- Dust generating procedures –
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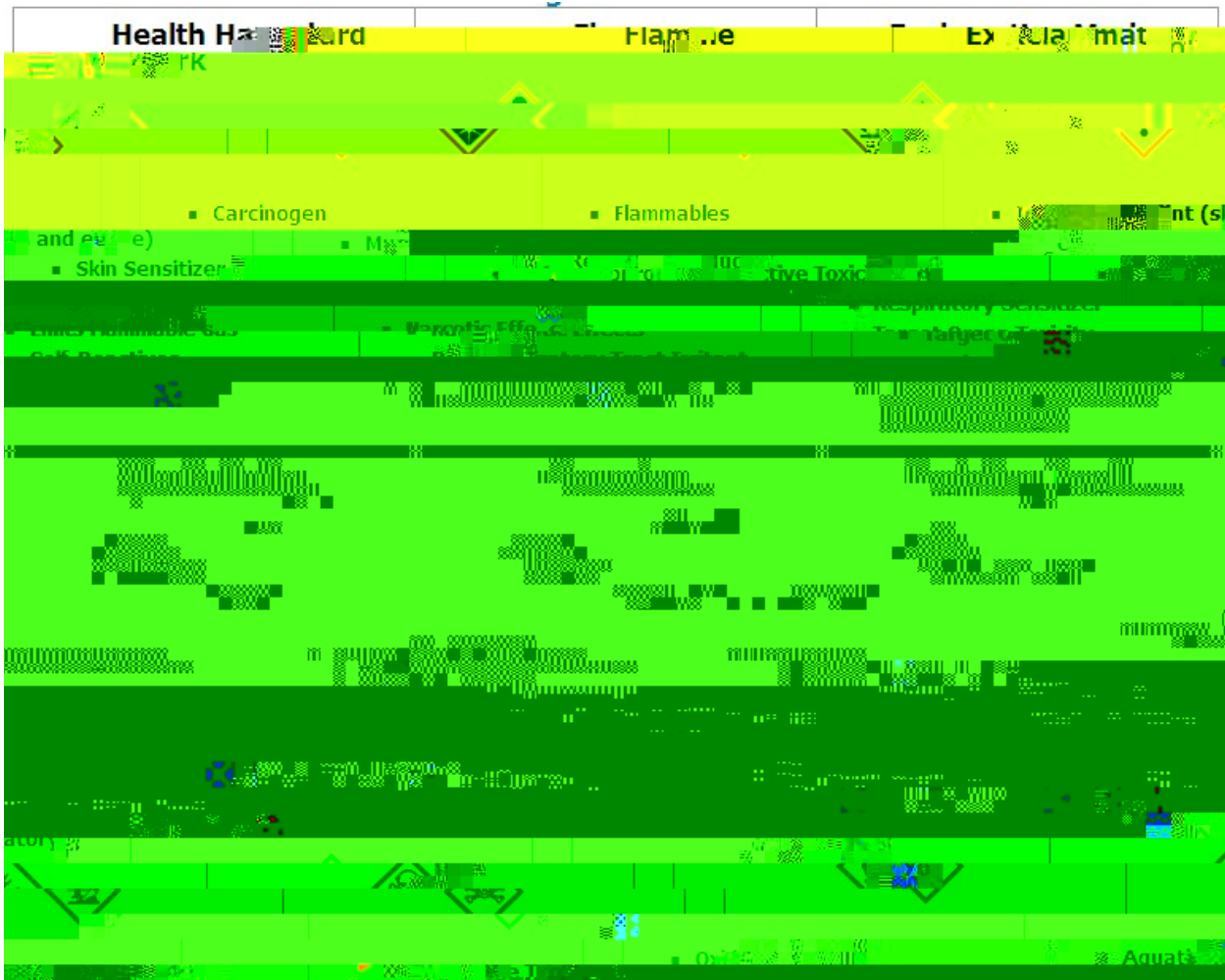
3. Additional Labeling Standards for Hazardous Material Containers

- 3.1. Waste Labeling: Hazardous waste is exempt from the HazCom plan and inventory requirements in SafeColleges SDS. However, other requirements are outlined within Lindenwood University's CHP and should be referenced. Personnel handling hazardous waste must be informed of potential hazards and the necessary precautions they should take.
- 3.2. Peroxide Forming Materials: Peroxide-forming substances need to be labeled separately from others outlined within this HazCom Plan. The label shown below should be filled out and attached to the material. Of particular importance is the date the original container was first opened. These labels are available by contacting: (EHS@lindenwood.edu)

- 3.3. NFPA Labeling: Fire departments use the NFPA 704 labeling system to convey general information about the hazards of chemicals to emergency responders in the case of a fire or spill inside of a room. This system rates a chemical's hazards, on a scale of 0-4 with 4 being the most hazardous (opposite of the GHS). This labeling system can be used in addition to the GHS label requirements, but is not a substitute for proper secondary labeling which should include the name of the substance, signal word, and hazard.

4. Pictogram Communications

4.1. HCS Pictograms and Hazards The HCS (Hazard Communication Standard) requires pictograms to be present on all labels. Pictograms work to alert users of the hazards which they may be exposed to through usage of particular chemicals and materials. Approved pictograms consist of a symbol on a white background, outlined within a red border. The presence of any particular pictograms on a label is determined by the chemical/materials hazard classification.



4.2. NFPA Pictograms



Specific Hazards	
OX	oxidizers
ACID	acids
ALK	alkali materials
COR	corrosive materials
W	use no water

Hazard:	Fire Hazard	Health Hazard	Reactivity
Color:	Red	Blue	Yellow
Location:	Top Quadrant	Left Quadrant	Right Quadrant
Rating	Description of Numeric Rating		
4	Flash Point <73°F, Boiling Point <100°F	Deadly	May Detonate
3	Flash Point <73°F and Flash Point 73°F - 100°F	Extreme danger	Shock

Section 3. Keeping Safety Data Sheets (SDS)

1. University departments and areas utilizing regulated chemicals and/or materials are required to enter and maintain a hazardous chemical inventory in an accepted Lindenwood University System online SDS management system. As detailed in the HCR requirements, designated individuals are required to update the SafeColleges SDS database in accordance with work processes or chemical use modifications. Annual review at the departmental level of this database is mandated by Lindenwood EHS to ensure compliance with local, state, and federal regulations.
2. The Occupational Safety and Health Administration (OSHA) requires all chemical manufacturers, wholesalers, and distributors provide Safety Data Sheets (SDS) for the products which they produce and sell. OSHA also requires that employers maintain, in the workplace, access to SDS for each hazardous chemical. Proper labeling of materials is required at all times as well as making every worker aware of an accessible online database containing all SDS sheets.
3. Laboratory Supervisors and Principle Investigators, or their designees, are responsible for ensuring compliance with SDS requirements and Hazard Communication standards. The following platforms are available for ensuring compliance with this HazCom Plan:
 - 3.1. Laboratories, studios, and spaces in which faculty, staff, and students engage in the use of chemicals for instruction, training, or research develop and maintain SDS libraries in the SafeColleges System.
 - 3.2. Facilities and operations spaces in which staff engage in the use of chemicals for daily operations and maintenance develop and maintain SDS libraries in the SafeColleges SDS management system.
 - 3.3. Alternative systems may be used at the School, department, or lab level upon review and approval by the Health and Safety Committee. These systems must be in compliance with OSHA requirements for Hazard Communications and University policy for making SDS available in standard and emergent situations.

4. SDS Formatting

With any chemical, it is prudent to consult the SDS before use. In general, an SDS consists of the following sections:

- 4.1. Section 1 - Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.
- 4.2. Section 2 - Hazard(s) identification includes all hazards regarding the chemical; required label elements.
- 4.3. Section 3 - Composition/information on ingredients includes information on chemical ingredients; trade secret claims.
- 4.4. Section 4 - First-aid measures includes important symptoms/ effects, acute, delayed; required treatment.
- 4.5. Section 5 - Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.
- 4.6. Section 6 - Accidental release measures list emergency procedures; protective equipment; proper methods of containment and cleanup.

3.1. These records should include:

- 3.1.1. Name
- 3.1.2. Date of said training
- 3.1.3. Scope of training
- 3.1.4. Specific training courses completed

3.2. A Laboratory or Site-Specific CHP may require additional training specific to chemical hazards or exposures. The Principle Investigator, Laboratory Supervisor, or designee for a specific CHP is responsible for ensuring individuals covered by the CHP have completed and documented all required training. Additional training is required, but not limited to, the following circumstances:

- 3.2.1. Use of any Particularly Hazardous Substance. These additional training requirements will be reviewed by the Health and Safety Committee on a case-by-case basis.
- 3.2.2. Use of any radiation producing equipment or materials with potential radiation exposure. These additional training requirements will be reviewed by the Radiation Safety Committee and reported to the Health and Safety Committee on a case-by-case basis.