ILLINOIS STATE UNIVERSITY HAZARD COMMUNICATION PROGRAM

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Table of Contents

1. PURPOSE AND SCOPE

The Hazard Communication Program is designed to prevent exposure to and protect employees from the harmful effects of chemicals used on ISU property. The written program provides guidance to ensure that every reasonable effort is made to avoid exposure to any potentially hazardous chemicals. Employee training shall provide a more detailed understanding of hazardous chemicals and corresponding protocols to be followed when handling hazardous chemicals during the normal course of one's duties at ISU.

This HAZCOM program applies to all employees and students employed by Illinois State University, who by job classification or responsibilities, can reasonably be expected to come in contact with chemicals or hazardous substances. ISU's Hazard Communication Program is in accordance with the Occupational Safety and Health Administration's 29CFR1910.1200 standard.

2. RESPONSIBILITIES

a. Environmental Health and Safety

- Fund cost of occupational exposure monitoring.
- Share cost of MSDSonline Management System with Facilities Management.
- Annually review this plan to maintain compliance wth regualtory reguirements and campus needs.
- When needed, facilitate Hazard Communication training for employees.
- Maintain master database of Safety Sata Sheets (SDS) registered with MSDSonline.

b. Departmental Leads

- Ensure all employees who handle hazardous chemicals in their work area are trained in Hazard Communication prior to initial assignment and whenever a new hazard is introduced into their work area.
- Ensure that the department is in compliance with all elements of the University Hazard Communication Program, including site-specific chemical inventories, chemical labeling, Safety Data Sheets, and employee training.
- Designate an SDS Administrator to maintain a list of all hazardous chemicals used by departmental employees and ensure corresponding SDSs are available on MSDSonline.
- Provide personal protective clothing and equipment and train employees how to use them.
- Complete job hazard assessments for non-routine tasks and consult with Environmental Health and Safety if needed.

c. ISU Personnel

- Successfully complete Hazard Communication training and follow all requirements contained therein.
- Become familiar with and follow safe use procedures listed on safety data sheets / labels associated with any hazardous chemical being used.
- When prescribed, wear appropriate personal protective equipment (PPE) when handling hazardous materials.
- Notify one's supervisor when performing a non-routine task involving the use of a particular chemical. The supervisor shall assess the task for potential new hazards and contact Environmental Health & Safety to review the hazard for potential exposure concerns.

d. ISU Project Managers

- Ensure that contractors are provided with identification of hazardous chemicals maintained on campus to which they may be exposed when working on ISU property. Contractors shall also be advised of where they can access SDSs for any hazardous chemicals maintained on campus to which they may be exposed, appropriate protective measures, and labeling requirements.
- Report to Environmental Health & Safety any concerns associated with use of chemicals by contractors on ISU property that is considered a possible hazard to ISU employees or visitors.

Note: Contractors are responsible for complying with OSHA's Hazard Communication program and maintaining SDS's for all hazardous chemicals used on ISU property.

3. DEFINITIONS

Classification - to identify the relevant data regarding the hazards of a chemical; review data to ascertain the hazards associated with the chemical; and decide whether the chemical will be classified as hazardous according to the definition of a hazardous chemical. In addition, classification for health and physical hazards includes the determination of the degree of hazard, where appropriate, by comparing the data with the criteria for health and physical hazards. *NOTE: Hazard classification is typically completed by the manufacturer, distributor, or importer of the chemical.*

Employee - worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or administrative personnel who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

Globally Harmonized System of Classification and Labeling of Chemicals (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.

Hazard Category - the division of criteria within each hazard class, e.g., oral acute toxicity and flammable liquids include four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.

Hazard Class - the nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.

Hazard Not Otherwise Classified (HNOC) - an adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in 29CFR1910.1200. This does not extend coverage to adverse physical and health effects for which there is a hazard class addressed in 1910.1200, but the effect either falls below the cut-off value/concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).

Hazard Statement - statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.

Hazardous Chemical - any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.

Health Hazard - a chemical which 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); or aspiration hazard. The criteria for determining whether a chemical is classified as a health hazard are detailed in Appendix A to §1910.1200 -- Health Hazard Criteria.

Label - an appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging. Required label elements include specified pictogram, hazard statement, signal word, and precautionary statement for each hazard class and category. *NOTE: Minimum workplace labeling requirements include the name of the chemical and the applicable hazards, which can be displayed with symbols, pictures, words, or a combination thereof.*

MSDSonline – on-line Safety Data Sheet management system used by Illinois State University.

Physical Hazard - a chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas. See Appendix B to §1910.1200 -- Physical Hazard Criteria.

Pictogram - a composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.

Precautionary Statement - a phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.

Product Identifier - the name or number used for a hazardous chemical on a label or in the SDS. It provides a unique means by which the user can identify the chemical. The product identifier used shall permit cross-references to be made among the list of hazardous chemicals required in the written hazard communication program, the label and the SDS.

Pyrophoric Gas - a chemical in a gaseous state that will ignite spontaneously in air at a temperature of 130 degrees F (54.4 degrees C) or below.

Safety Data Sheet (SDS) - written or printed material concerning a hazardous chemical which is specifically prepared by the manufacturer in accordance with OSHA standard 1910.1200 and which outlines hazards and corresponding safe usage guidance using a 16-section format.

Signal Word - a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.

Simple Asphyxiant - a substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those who are exposed, leading to unconsciousness and death.\

4. PROGRAM ELEMENTS

a. Hazard Communication Program Exemptions

HAZCOM requirements do not apply to the following substances:

- Hazardous waste covered by Resource Conservation and Recovery Act (RCRA)
- Hazardous substances when they are the focus of removal or remedial action conducted under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Tobacco and tobacco products
- Food or alcohol sold in retail for personal consumption
- Cosmetics
- Consumer products used in a duration and frequency of exposure that is less than what would be experienced by consumers when used as intended
- Wood or wood products (unless treated with a hazardous chemical AND producing dust via cutting of sawing)
- Articles – Manufactured item other than a fluid or particle that in its end use does not release a hazardous chemical and does not pose a health risk
- Nuisance particulates
- Ionizing and Non-Ionizing radiation
- Biological hazards

HAZCOM labeling requirements do not apply to the following substances:

- Pesticides covered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- Chemical substances and mixtures covered under Toxic Substances Control Act (TSCA)
- Food, food additives, color additives, drugs, cosmetics, or medical/veterinary device or product
- Distilled spirits, wine, or malt beverages used for non-industrial purposes
- Consumer products covered by Consumer Product Safety Commission and used in a manner/frequency as consumer use

b. Non-Routine Tasks

When hazardous chemicals are used in a manner not typical to the job function, the employee must notify his/her supervisor. Supervisors will complete a job hazard assessment to identify:

- Potential hazards related to the task
- PPE to reduce the risk of exposure
- Training to accomplish task
- Emergency action procedures

c. Location and Availability of Written University Hazard Communication Program

A copy of the ISU Hazard Communication Program shall be maintained by Environmental Health and Safety (EHS) and is available on the EHS website.

d. Chemical Inventories

A list of the hazardous chemicals known to be present in the workplace must be readily available. A product identifier must be referenced on the appropriate SDS.

Chemical inventories can be compiled for the workplace as a whole or for individual departments and work areas. MSDSonline serves as a chemical inventory for numerous departments.

e. Labels and Other Forms of Warning

Containers must be labeled with the identity of the hazardous material and appropriate hazard warnings. Only containers and labels which are compatible with material and meet industry guidelines are to be utilized. When hazardous **materials are transferred from original containers to non-labeled containers, the new container must be labeled with the following:**

1) Identity of chemical, from the original manufacturer label or MSDS, can be either the common
   name or the chemical name, and;
2) Appropriate hazard warnings, or alternatively, words, pictures or symbols or a combination thereof
   to convey physical and health hazards to employees.

Labels must be in English, legible and prominently displayed. The color or size of the label does not matter.

Note: The only exception to the labeling requirement is when a chemical is transferred into a container for immediate use by the employee performing the transfer. If the material is used within an 8-hour workday, labeling requirements do not apply.

If the hazardous chemical is regulated by OSHA in a substance-specific health standard, labels or other forms of warning must be accordance with the requirements of that standard.

Signs, placards, process sheets, work orders, operating procedures or other such written materials may be used in lieu of labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and includes the identity of the hazardous chemical, as well as the appropriate hazard warnings.

Labels should never be removed or defaced. If labels are removed, the container shall be re-marked as indicated above.

f. Safety Data Sheets (SDSs)

A Safety Data Sheet is a written document provided by the manufacturer or importer of a hazardous chemical which provides detailed information including physical and health hazards, physical and chemical characteristics, and recommendations for appropriate protective measures.

Departmental leads/supervisors shall maintain copies of required SDSs for each hazardous chemical to which their employees may be exposed and shall ensure that they are readily accessible during each work shift. Electronic access is permitted, as long as there are no barriers to immediate access. Where employees travel between workplaces during their workshift(s), SDSs can be maintained at the primary workplace facility, as long as the employee can still gain immediate access in the case of an emergency.

Illinois State University employees have 24/7 access to MSDSonline, the University's online SDS management system. Employees can access this system using available computers and smartphone technology. If a chemical SDS is not available online, it must be brought to the attention of the departmental supervisor(s). Each department should have a designated administrator of the MSDSonline database for their specific area(s). Contact Environmental Health and Safety for assistance with MSDSonline.

The OSHA Hazard Communication Safety Data Sheets Quick Card explaining the 16-section SDS format is located in Appendix D.

5. EMPLOYEE INFORMATION AND TRAINING

All employees who handle or come into contact with hazardous chemicals in the work area shall be trained on the risks, hazards, and precautions necessary to safely handle chemicals in their work area. New university employees shall be trained prior to assignment and/or when there is a change in the hazards or the chemicals themselves. Refresher training is required when there is a change in job function, a new product is procured, or there is reason to believe the employee does not fully understand the components of Hazard Communication Training.

Employee training shall include:

- Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area, such as employer monitoring, continuous monitoring devices, visual appearance or odor of hazardous chemicals when released, alarms, etc.
- Physical and health hazards of the chemical types that may be found in the work area
- Measures employees can take to protect themselves from hazards, including specific procedures implemented to protect the employee from exposure to hazardous chemicals, such as work practices, emergency procedures, and personal protective equipment
- Details of the HAZCOM program, including an explanation of the labeling system and MSDSs, and how employees are expected to obtain and use the appropriate information.

In addition to the formal training, employees shall be informed of the following:

- Any exposure to hazardous chemicals to which the employee has not been previously made aware of the hazardous chemical and associated hazards and corresponding precautionary measures.
- The process by which they can access SDS's for chemicals to which they may be exposed.

Training will be provided by either Environmental Health and Safety or someone designated by Environmental Health and Safety, such as departmental leads and other supervisory personnel. Training records will be maintained by the department of the employee(s) being trained.

APPENDIX A: HEALTH HAZARDS

Health hazards can cause illness or other health problems, which can include short-term effects, such as headaches, dizziness, or skin irritation, or long-term effects, such as organ damage or cancer. A health hazard occurs when a chemical poses 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); *or* Aspiration hazard.

APPENDIX B: PHYSICAL HAZARDS

Hazardous chemicals present several types of hazards: physical hazards, health hazards, asphyxiant, pyrophoric, combustible dust, and others that are not classified. A physical hazard occurs when a chemical poses one of the following hazardous effects:

- Explosive;
- Flammable (gases, aerosols, liquids, or solids);
- Oxidizer (liquid, solid or gas);
- Self-reactive;
- Pyrophoric (liquid or solid);
- Self-heating;
- Organic peroxide;
- Corrosive to metal;
- Gas under pressure; or
- Emits flammable gas when it comes in contact with water.

APPENDIX C: GHS PICTOGRAMS AND HAZARDS

HCS Pictograms and Hazards

Health Hazard

- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity

Flame

- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self Reactives
- Organic Peroxides

Exclamation Mark

- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)

Gas Cylinder

- Gases Under Pressure

Corrosion

- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals

Exploding Bomb

- Explosives
- Self-Reactives
- Organic Peroxides

Flame Over Circle

- Oxidizers

Environment (Non-Mandatory)

- Aquatic Toxicity

Skull and Crossbones

- Acute Toxicity (fatal or toxic)

APPENDIX D: HAZARD COMMUNICATION SAFETY DATA SHEETS

OSHA QUICK CARD™

Hazard Communication Safety Data Sheets

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/ effects, acute, delayed; required treatment.

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*

Section 13, Disposal considerations*

Section 14, Transport information*

Section 15, Regulatory information*

Section 16, Other information, includes the date of preparation or last revision.

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15(29 CFR 1910.1200(g)(2)).

Employers must ensure that SDSs are readily accessible to employees.
See Appendix D of 1910.1200 for a detailed description of SDS contents.

For more information: www.osha.gov

OSHA
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U.S. Department of Labor