SECTION 7–HAZARD COMMUNICATION PROGRAM

7.1 Hazard Communication

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Revised: June 2013
Reviewed: October 2008
Date Accepted: April 2002
Draft Date: December 2001
Updated: November 2017

7.1 HAZARD COMMUNICATION

A. Objective

This Hazard Communication Program is a plan to ensure that all employees and students receive adequate information relevant to the possible hazards, which may be involved with the various hazardous substances used at the College.

B. Scope

This policy covers all potential workplace exposures involving hazardous substances as defined by Federal, State and local regulations.

C. References

Department of Labor, Occupational Health and Safety Administration (OSHA) 29 Code of Federal Regulations 1910.1200 as amended in 2012, Illinois Department of Labor 820 ILCS 225 Health and Safety Act.

D. Responsibilities

Supervisors must inform employees, students and visitors of hazardous chemicals present in the area.

Supervisors must make sure that Safety Data Sheets (SDS) are readily available for all hazardous chemicals used in the work area. An inventory of hazardous substances shall also be maintained for information on the amount and location of hazardous chemicals.

Supervisors must ensure containers of hazardous chemicals are always properly labeled.

Employees working with hazardous chemicals must participate in Hazard Communication training to ensure they understand the physical and health hazards of the chemicals in the work area, measures to protect themselves from these hazards, and how to read labels and SDS.

The Manager, Environmental Health & Safety or Laboratory Chemical Hygiene Officer can provide training and assistance in Hazard Communications.

E. Hazardous Chemical Definition

A hazardous chemical is defined by OSHA as any chemical that is a **health hazard** or a **physical hazard**.

- **HEALTH HAZARD:** OSHA defines a health hazard as a chemical for which there is statistically significant evidence, based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. Chemicals covered by this definition include carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes.
- **PHYSICAL HAZARD:** OSHA defines a physical hazard as a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive), or water-reactive.
- **ADDITIONAL HAZARDOUS CHEMICALS:** The broad definition OSHA uses to define hazardous chemicals includes not only generic chemicals, but also paints, cleaning compounds, inks, dyes, and many other common substances. Chemical manufacturers and importers are required to determine if the chemicals they produce or repackage meet the definition of a hazardous chemical. A chemical mixture may

be considered as a whole or by its ingredients to determine its hazards. It may be considered as a whole if it has been tested as a whole and a Safety Data Sheet (SDS) has been issued accordingly. Otherwise, the mixture must be evaluated by its components. If the mixture contains 1.0% or more of a hazardous chemical or 0.1% of an ingredient listed as a carcinogen or suspected carcinogen, the whole mixture is assumed to have the same health and/or carcinogenic hazards as its components.

F. Container Labeling

No container or hazardous substances will be released for use unless the container is correctly labeled and the label is legible.

All chemicals in bags, drums, barrels, bottles, boxes, cans, cylinders, reaction vessels, storage tanks, or the like will be checked by the receiving department to ensure the manufacturer's label is intact, is legible, and has not been damaged in any manner during shipment. Any containers found to have damaged labels will be quarantined until a new label has been installed.

The label must contain (as of December 1, 2015):

(a) Name, Address, and Telephone Number of the chemical manufacturer, importer or other responsible party

(b) Product Identifier, how the hazardous chemical is identified. This can be (but is not limited to) the chemical name, code number or batch number.

(c) Signal Words are used to indicate the relative level of severity of the hazard and alert the reader to a potential hazard on the label. There are only two words used as signal words, “Danger” and “Warning”. Within a specific hazard class, “Danger” is used for the more severe hazards and “Warning” is used for the less severe hazards.

(d) Hazard Statements describe the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard. All of the applicable hazard statements must appear on the label. Hazard statements may be combined where appropriate to reduce redundancies and improve readability.

(e) Precautionary Statements describe recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to the hazardous chemical or improper storage or handling. There are four types of precautionary statements: Prevention (to minimize exposure); Response (in case of accidental spillage or exposure emergency response and first-aid); Storage; and Disposal.

(f) Pictogram(s) are graphic symbols used to communicate specific information about the hazards of a chemical. There are nine pictograms; however, OSHA will not enforce the use of the “environment” pictogram. See pictograms and their descriptions in Section 7.2.

All secondary containers shall be labeled. The information must include details of all chemicals, which are in the referenced container.

EXEMPTIONS TO LABELING: A portable chemical container filled from a labeled container by an employee who uses it immediately or during his or her work shift does not have to be labeled. However, if any of the material is left at the end of the work shift, it must be labeled or returned to a labeled container. Pipes and piping systems do not have to be labeled.

G. Safety Data Sheets (SDS)

Departments shall keep a binder with copies of the SDS used in the area.

A Department Head or their designee will be responsible for reviewing all incoming SDS for new and significant health/safety information. The designee will ensure that any new information is passed on to the employees involved.

There are 16 required sections to all SDS, see Section 7.3 of this procedure for requirements. The Department Head or their designee will review all incoming SDS for completeness. If any SDS is missing or obviously incomplete, a new SDS will be requested from the manufacturer or distributor. OSHA is to be notified if the manufacturer or distributor will not supply the SDS or if it is not received after 30 days from request. Any new information will be passed on to employees involved.

New materials will not be introduced into the work area until a SDS has been received.

The department that makes the purchase will make it an ongoing part of their function to obtain SDS for all new materials when they are first ordered.

The Manager of Environmental Health & Safety shall coordinate with appropriate departments to make sure all SDS are obtained, distributed, and communicated.

H. List of Hazardous Substances

Each department shall compile, annually review, and update as necessary a complete inventory of all substances present in that department. The name of those materials determined to be hazardous are defined in applicable Federal and State standards.

The College has a database to keep an inventory of hazardous substances on campus. Departments shall keep this database up to date with the name of the hazardous substance, location and approximate quantity. Contact the Manager, Environmental Health & Safety for assistance or access to the database.

I. Employee Information & Training

All employees that work with hazardous substances will attend a training session either in person or online that will cover the following:

- An overview of the requirements of the Hazard Communication Standard, including their rights under this regulation;
- Any operations in their work area where hazardous chemicals are present; and,
- The location and availability of the written Hazard Communication Program. Subsequent to this, the program will be available from managers and also from the Manager of Environmental Health & Safety;
- Methods and observation techniques used to determine the presence or release of hazardous substances in the work area;
- The physical, health, simple asphyxiation, combustible dust, and pyrophoric gas hazards, as well as hazards not otherwise classified of the chemical in the work area;
- The controls, work practices and personal protective equipment, which are available for protection against possible exposure;
- Emergency and first aid procedures to follow if employees are exposed to hazardous substances and the signs and symptoms of overexposure to hazardous chemicals in the workplace; and,
- How to read labels and Safety Data Sheets (SDS) to obtain the appropriate hazard information.
- Training is required at the time of initial assignment and whenever a new physical or health hazard is introduced into the work area.

Questions regarding this information should be directed to the Manager of Environmental Health & Safety.

When new substances are introduced into the workplace the Department manager will review the above items with you as they are related to the new materials.

The department manager will relay all the above information to new employees, who will be working with hazardous substances, prior to their starting work.

J. Non-Routine Tasks

Infrequently, employees may be required to perform non-routine tasks, which involve the use of hazardous substances. Prior to starting work on such projects, each involved employee will be given information by his/her supervisor about hazards to which they may be exposed during such an activity.

This information will include:

- The specific hazards;
- Protective/safety measures which must be utilized; and,
- The measures the College has taken to lessen the hazards, including special ventilation, respirators, the presence of another employee, air sample readings, and emergency procedures.

K. Informing Contractors

To ensure that outside contractors work safely at the College, and to ensure the safety of the contractor's employees, it will be the responsibility of management to provide contractors the following information:

- The hazardous substance to which they may be exposed while working at the College.
- The precautions the contractor's employees must take to lessen the possibility of exposure by usage of the appropriate measures.
- Rules and regulations regarding the protection of employee safety relevant to fire and ignition sources around flammable materials will be followed. The rules regarding smoking, welding, and grinding, will also be followed.

Outside contractors shall supply the name of any hazardous substance the contractor's employees may be bringing into the facility for use in their work. The contractor should also supply a copy of the SDS relevant to these materials.

L. Laboratory Requirements

Ensure that labels on incoming containers of hazardous chemicals are neither removed nor defaced.

Maintain any SDS that are received with hazardous chemicals, and ensure that SDS for all hazardous chemicals in the work area are readily accessible to laboratory employees during the times they work in the laboratory and to emergency response personnel.

Provide information and training to employees regarding the hazardous chemicals in their work area at the time of their first work assignment and again whenever a new health or physical hazard is introduced into their work area. Laboratory employees are to receive the same training as discussed in Section I. Employee Information and Training. Additionally, laboratory employees must understand and follow the standard operating procedures for the correct handling of hazardous chemicals as covered in the *Harper College Laboratory Chemical Hygiene Plan (Section 8 of the EH&S Manual).*

M. Plan Administration

The Manager of Environmental Health & Safety will monitor this Hazard Communication program.

Questions regarding this program should be directed to the Manager of Environmental Health & Safety.

7.2 HCS PICTOGRAMS AND HAZARDS

As of June 1, 2015, the Hazard Communication Standard (HCS) has required pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.

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)

7.3 SAFETY DATA SHEETS (SDS)

Safety Data Sheets (SDS)

With the 2012 amendments 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)).