DEPAUL UNIVERSITY

Hazard Communication Program

Environmental Health & Safety

April 2017

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APPENDICES

1.0 INTRODUCTION

The purpose of the Hazard Communication Program (HazCom) is to ensure all DePaul University faculty, staff, student employees and contract employees are aware of chemicals in their workplaces and are provided information regarding the potential hazards associated with exposure to these chemicals. The program also covers container labeling, safety data sheets, employee training and emergency procedures.

2.0 SCOPE

This program is applicable to all DePaul University faculty, staff, student employees and contract employees who work in areas where chemicals are used and/or use chemicals for work-related activities.

2.1 Exemptions

Laboratory employees who fall under the Laboratory Standard shall defer to the Chemical Hygiene Plan (CHP). Certain chemicals are specifically exempted from this Hazard Communication Program including pesticides, fungicides, rodenticides, food, food additives, drugs, cosmetics and medical or veterinary products. A more complete list can be found in 29 CFR 1910.1200.

Employees in office environments work with a variety of products that may contain small amounts of chemicals. Safe exposure limits have been established for many chemical substances below which no adverse health effects are expected to occur. Since most office products are used intermittently and in small quantities, exposure to these products is not expected to exceed safe limits or produce adverse health effects. In addition, most of these products are consumer products and therefore meet the more stringent regulations for consumer product safety.

3.0 RESPONSIBILITIES

3.1 Supervisors

Supervisors are responsible for implementing the Hazard Communication Program and ensuring the safe use of chemicals for all areas under their supervision. Responsibilities include:

- Identifying chemicals present in the work area.
- Maintaining an inventory list of chemicals present in the work area.
- Ensuring chemicals are appropriately labeled or posted.
- Ensuring pipes carrying chemicals are labeled.
- Obtaining SDSs for chemicals used in the work area and ensuring SDSs are available to employees.
- Ensuring employees are trained on Hazard Communication and on physical hazards, health hazards, safe handling procedures, and emergency procedures for chemicals used in the work area.
- Ensuring that employees follow established safety procedures.
- Adequately informing any non-University personnel sharing the same work area of the chemicals to which their employees may be exposed while performing their work.
- Maintaining a copy of this written program in the workplace. The program is also available online at: ehs.depaul.edu

3.2 Employees

Employees are responsible for:

- Complying with the guidelines set forth in this plan and being capable of recognizing workplace hazards and addressing them with their supervisor.
- Attending required Hazard Communication training.

3.3 Environmental Health & Safety (EHS)

EHS is responsible for providing resources (i.e., reference materials) and technical support to ensure employees are protected from certain chemicals. Specific responsibilities include:

- Maintaining the written Hazard Communication Program.
- Assisting departments in training, plan implementation and PPE selection and use.

4.0 HAZARDOUS CHEMICAL INVENTORY

Each campus department working with or using chemicals are required to complete and maintain a chemical inventory. At a minimum, the inventory should include the chemical name as it appears on the shipping label and SDS, the manufacturer's name and address and the location of the chemical (building and room). The inventory must be updated at least annually or as needed and kept for 30 years. (See APPENDIX C: Chemical Inventory Exceptions)

5.0 LABELING

5.1 To ensure that appropriate information concerning the hazards of a chemical are accessible to employees, all containers of chemicals shall be labeled. Labels shall be legible, in English (additional languages may be included as necessary), and prominently displayed on the container. Chemical manufacturers, importers, and distributors shall ensure that every container of chemicals entering the workplace is appropriately labeled with the identity of the chemical(s) (common and/or chemical name), appropriate hazard warnings; and the name and address of the chemical manufacturer, importer or other responsible party.

If a chemical label in the workplace becomes damaged, illegible, or is inadvertently removed from a container, it shall be replaced immediately by the supervisor or designee.

Replacement labels shall include, at a minimum:

- The identity of the chemical(s) common and/or chemical name.
- Appropriate hazard warnings or alternatively, words, pictures, symbols or combination which provide at least the general information regarding the hazards of the chemicals.

Chemicals which are transferred from the original container into a secondary container shall be identified by a label on the secondary container. It is not necessary to label the secondary container if it is used immediately by the employee who performs the transfer.

Non-hazardous substances (e.g., distilled water) should be labeled in order to avoid confusion.

6.0 SAFETY DATA SHEETS (SDS)

The purpose of an SDS is to provide health and safety data about a specific chemical. The SDS discloses the chemical composition, physical hazards, health hazards, and other information about a chemical or material as specified by OSHA.

6.1 General Requirements

- A SDS shall be available for every chemical used in a work area and shall be accessible to employees.
- A SDS shall be provided by the manufacturer/importer/distributor with or before the initial shipment of the chemical(s) and with or before the first shipment after an SDS is updated.
- If the SDS is not provided with the shipment, the purchaser (e.g. ,laboratory/shop supervisor) shall obtain one from the manufacturer, importer or distributor prior to use of the purchased material.
- SDSs shall be in English and contain the following information:

    1. Identification of the Substance or Mixture and Supplier Information
        - Product Identifier
        - Recommended use of the chemical and restrictions on use
        - Supplier's details: Name, Address, Phone Number, and Emergency Phone Number
    2. Hazards Identification
        - GHS classification of the material
        - GHS label elements: Pictogram, precautionary and hazard statements
        - Other hazards which do not result in classification or not covered by GHS
    3. Composition/Information on Ingredients
        - Chemical identity
        - Common name, synonyms
        - CAS number/EC number
        - Impurities and stabilizing agents which are classified and contribute to the classification
    4. First Aid Measures
        - Description of necessary measures, divided by exposure route
        - Most important symptoms and/or effects either acute or delayed
        - Indication of immediate medical attention and special treatment, if necessary
    5. Firefighting Measures
        - Suitable and unsuitable extinguishing media
        - Specific hazards that may arise if combustion occurs
        - Special protective equipment and precautions for firefighters
    6. Accidental Release Measures
        - Precautions, personal protective equipment and emergency procedures
        - Environmental precautions
        - Methods and materials for containment and clean up
    7. Handling and Storage
        - Safe handling precautions
        - Conditions for safe storage

- Includes any incompatibilities

8. Exposure Controls/Personal Protection
   - Control parameters (e.g. Occupational Exposure Limit Values)
   - Engineering controls
   - Individual protection measures and equipment needed (e.g. personal protective equipment)
9. Physical and Chemical Properties
   - Appearance (color, physical state, etc.)
   - Odor
   - Odor threshold
   - pH
   - Melting point/Freezing point
   - Boiling point and range
   - Flash point
   - Evaporation rate
   - Flammability
   - Upper/Lower flammability or exposure limits
   - Vapor Pressure and density
   - Solubility
   - Autoignition temperature
   - Decomposition temperature
10. Stability and Reactivity
    - Chemical stability
    - Possible hazardous reactions
    - Conditions to avoid
    - Incompatible materials
    - Hazardous decomposition products
11. Toxicological Information
    - Information on likely routes of exposure
    - Symptoms related to physical, chemical and toxicological characteristics
    - Delayed and immediate effects and also chronic effects from short and long term exposure
    - Numerical measures of toxicity
12. Other Information
    - Includes information on preparation and revision of the SDS
13. Disposal Considerations
    - Information for safe handling and methods of disposal for the chemical and contaminated packaging
14. Transport Information
    - UN Number
    - UN Proper shipping name
    - Transport hazard class(es)
    - Packing group
    - Marine pollutant
    - Any special precautions
15. Regulatory Information
    - Environmental, health and safety regulations specific to the substance in question
16. Other Information

    - Includes information on preparation and revision of the SDS

- If employees travel between workplaces, the SDSs may be kept at a central location (e.g., shop). However, employees shall be able to obtain the required information in an emergency
- SDS documents can be managed electronically if:
    - A back-up system is in place in case of emergency causing electronic documents to be unavailable.
    - The system is integrated within the overall HazCom Plan.
    - Employees have hard-copy access if requested.

7.0 EMPLOYEE TRAINING

Employers must provide employees with effective information and training regarding chemicals in their work area prior to starting work, and once a year.

A record of the date, location and facilitator of each training session as well as a list of attendees should be maintained. Individual training records should be maintained in departmental personnel files and a copy has to be sent to Environmental Health & Safety.

The following information must be covered:

- The requirements of the Hazard Communication Standard (29CFR 1910.1200).
- The location and availability of the written Hazard Communication Plan.
- Physical and health hazards of chemicals in the work area, their locations, and the likely effects or symptoms of overexposure.
- Location of the departmental chemicals inventory.
- How to access SDS documents for all chemicals in the work area.
- The emergency procedures to follow in case of chemical spills, fires and other incidents.
- Methods used to determine the presence or release of chemicals in the work area.
- How to reduce or prevent exposure to chemicals through use of control/work practices and PPE.
- Emergency procedures to follow if an employee is exposed to chemicals.

8.0 HAZARDOUS NON-ROUTINE TASKS

A non-routine task is one which the employee does not normally perform and for which the employee has not previously been trained.

Standard operating procedures (SOP) should be written and available to employees performing "non-routine" tasks involving chemicals. Prior to beginning non-routine tasks involving actual or potential exposures to chemicals, employees will be informed of the hazards present and be given appropriate work instructions, emergency procedures and personal protective equipment (PPE) to be used. Required PPE will be provided prior to starting the task. The employee's supervisor or the area supervisors are responsible for SOP development, supplying PPE and providing training.

APPENDICES

APPENDIX A: Globally Harmonized System (GHS) Definitions

GHS: "The Globally Harmonized System of Classification and Labelling of Chemicals."

Hazard Statement: a statement assigned to a hazard class and category that describes the nature of the hazards of a hazardous product, including, where appropriate, the degree of hazard.

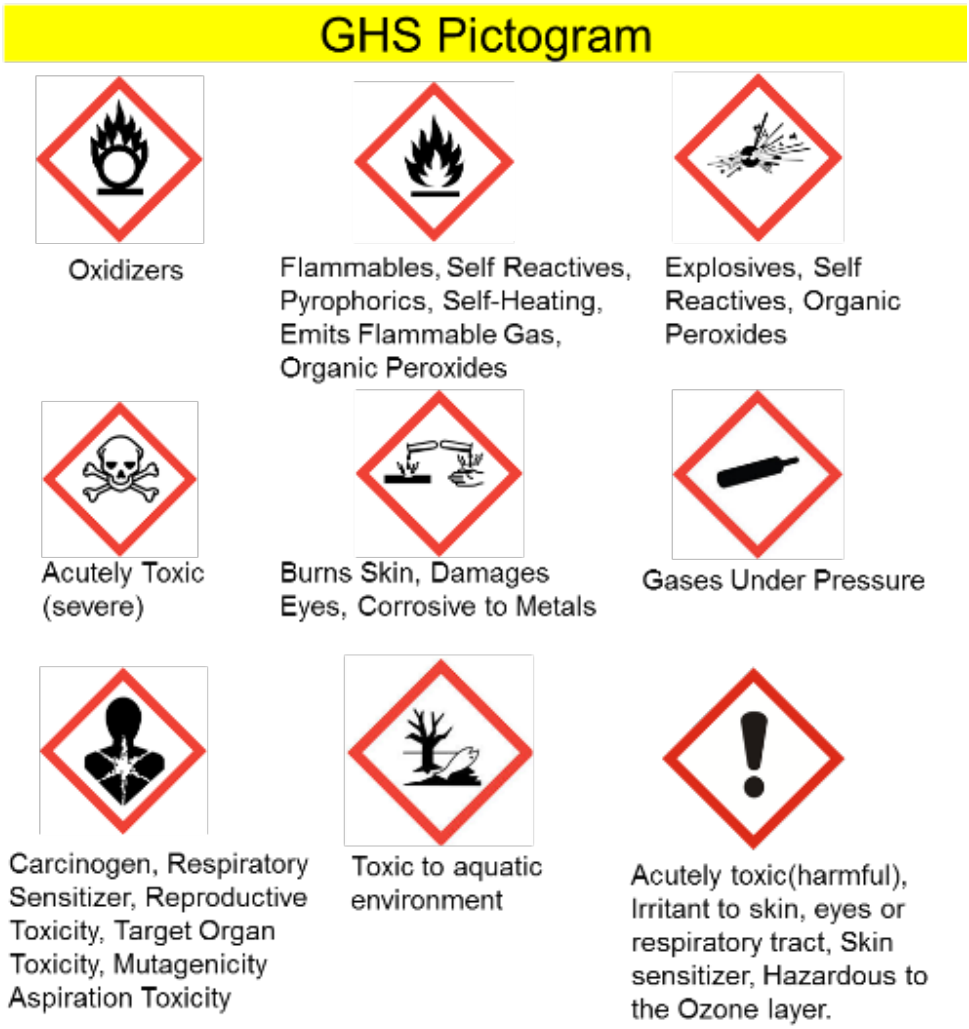
Pictogram: a graphical composition that may include a symbol plus other graphic elements, such as a border, background pattern or color that is intended to convey specific information.

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

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 GHS uses "Danger" and "Warning" as signal words.

Supplemental Label Element: any additional non-harmonized type of information supplied on the container of a hazardous product that is not required or specified under the GHS.

APPENDIX B: GHS Pictogram Reference Chart



APPENDIX C: Chemical Inventory Exceptions

- Chemistry, Biology and Environmental Science & Studies departments use Vertére Laboratory Inventory Management system.
- Art, Media & Design department, all chemicals received are to be unpacked in the storage area or studio. Each chemical is entered into the departments, Chemical Inventory System. The name, amount, date received, and location in the stockroom are recorded. Amounts used should be recorded as they are used. Each chemical should arrive with a Safety Data Sheet (SDS).
- The exception to this requirement is Facility Operations. Facility Operations has a modest inventory of frequently used supplies that are kept tracked by invoices and purchase orders for the Loop and Lincoln Park Campuses. Once supplies are delivered, they are sent out to various sites and used until gone.
- The Theatre department and College of Computing and Digital Media use a minimal amount of chemicals, what they do have is used until empty and disposed of properly. SDS are kept in a binder and located in the area of work.

APPENDIX D: Emergency Procedures for Chemicals Spills/Releases

If there is a materials release/chemical spill inside a building: All accidents and spills must be reported to Public Safety. Public safety can be contacted at:

- **Lincoln Park Campus: 773-325-7777 (5-7777 from a university phone)**
- **Loop Campus: 312-362-8400 (2-8400 from a university phone)**

When contacting the Public Safety, it is helpful to have the following information ready:

- Type of incident (e.g., chemical spill).
- Extent of any injuries/illnesses and if an ambulance was required.
- Building/location where the incident occurred.
- Your name and phone number where you can be reached.
- Name and estimated quantity of chemical (if incident involves chemical spill/release).

APPENDIX E: Glossary

Acute Effect: Adverse effect that has severe symptoms developing rapidly and coming quickly to a crisis, usually within minutes but up to twenty-four hours.

Chronic Effect: An adverse effect with symptoms that develop slowly over a long period of time or that occur frequently.

Carcinogen: A substance or agent capable of causing or producing cancer in mammals, including humans.

Combustible Liquid: Any liquid that must be heated sprayed or requires a wick to ignite, e.g., kerosene, oil.

Corrosive: A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact, e.g., battery acid.

Exposure or Exposed: That an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g., accidental or possible) exposure. "Subjected" in terms of health hazards includes any routes of entry (e.g., inhalation, ingestion, skin contact or absorption.).

Exposure Limit: The time-weighted average concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect.

Flammable Liquid: Any liquid that ignites at room temperature, e.g., gasoline, alcohol.

Hazardous Chemical: Any chemical whose presence or use is a health hazard or a physical hazard.

Hazard Warning: Any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the specific physical or health hazard(s), including target organ effects, of the chemical(s) in the container(s). (See definitions for "physical hazard" and "health hazard" to determine the hazard which must be addressed.)

Health Hazard: A chemical for which there is 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. The term "health hazard" includes chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, or produce targeted organ effects e.g., kidneys, liver, nervous system, blood, and agents that damage the lungs, skin, eyes, or mucous membranes.

Irritant: Chemical, which is not corrosive, that causes a reversible inflammatory effect on living tissue, e.g., skin, eyes, respiratory system, by chemical action at the site of contact, e.g., onion odour, skunk spray, acetic acid.

Physical Hazard: A chemical for which there is scientifically valid evidence that it is a combustible liquid, compressed gas, explosive, flammable, organic peroxide, oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Safety Data Sheet (SDS): Written or printed material concerning a hazardous chemical which is prepared in accordance with 29 CFR 1910.1200(g)

APPENDIX F: Program History

Date	Revision Number	Brief Description of Changes	Review Completed by
April 2017	1	No significant changes	J. Graham

ACKNOWLEDGEMENTS

This Hazardous Communication Program was developed using best practice examples from the Ohio State University and Stanford University as well as Federal and State regulations and guidance documents.