Benedictine University

Chemical Hazard Communication Program

2018

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PROGRAM ADMINISTRATION

At Benedictine University (the "University"), we work with a variety of materials, some of which are considered potentially hazardous. It is important that we are aware of the hazardous materials in our workplace and understand the labeling and communication about these materials so that we can safely manage their use.

Under the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, manufacturers, distributors and importers are required to provide the University with information on the potential hazards of the material(s) they ship. They do this through the standardized use of labels on the shipped containers and with Safety Data Sheet (SDS). As an employer with hazardous materials in the workplace, the University is required to prepare and implement a written hazard communication program to ensure the safety of its employees.

PURPOSE

The general purpose of this program is to ensure employees are informed and trained on the Hazard Communication Standard (29 CFR 1910.1200), the location and hazardous properties of the chemical used in the work place, and the protective measures required.

The program applies to all locations where employees might be exposed to hazardous chemicals during normal working conditions or an emergency situation.

SCOPE AND APPLICATION

This program establishes requirements for the use of hazardous material labels and other hazard warning methods, Safety Data Sheet (SDS), hazardous materials evaluations, annual inventories, and employee information and training on hazardous materials. The program will ensure that:

- Employees have proper training and awareness of hazardous materials in the workplace
- SDSs are on file for employee access
- Proper posting and container labeling are accomplished

DEFINITIONS

Carcinogen: A substance or agent capable of causing or producing cancer.

Chemical: Any substance, or mixture of substances.

Classification: To identify the relevant data regarding the hazards of a chemical; review those data to ascertain the hazards associated with the chemical; and decide whether the chemical will be classified as hazardous, and the degree of hazard where appropriate, by comparing the data with the criteria for health and physical hazards.

Combustible Liquid: A liquid having a flashpoint at or above 100°F.

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

Exposure or exposed: An employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (i.e., accidental or possible) exposure. The route of entry can be through inhalation, ingestion, skin contact or absorption.

Flammable Liquid: A liquid having a flashpoint below 100°F.

Flashpoint: The minimum temperature at which a material ignites when exposed to a source such as flame or spark.

Hazard Category: The division of criteria within each hazard class. 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, i.e. flammable, solid, carcinogen, and oral acute toxicity.

Hazard Statement: A 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, or an unclassified hazard as defined in this section.

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.

Irritant: A chemical, which is not corrosive, that causes a reversible inflammatory effect on living tissue by a chemical action at the site of contact.

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.

Mutagen: A substance or agent capable of altering the genetic material in a living cell.

Oxidizer: A chemical that initiates or promotes combustion in other materials, causing fire either by itself or through the release of oxygen or other gases.

Permissible Exposure Limit (PEL): The level of air contaminants that represents an acceptable exposure level as specified in standards set by a national government agency; generally expressed as 8-hour time-weighted average concentrations.

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.

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. Nine 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 chemical name, trade name, or even an alphanumeric 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 required list of hazardous chemicals, the label and the SDS.

Pyrophoric: A chemical that will ignite spontaneously in air at a temperature of 130°F or below.

Safety Data Sheet (SDS): Written or printed material concerning a hazardous chemical that is prepared in accordance with the hazard communication standard.

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.

Unclassified Hazard: A chemical for which there is scientific evidence identified during the classification process that it may pose an adverse physical or health effect when present in a workplace under normal conditions of use or in a foreseeable emergency, but the evidence does not currently meet the specified criteria for physical or health hazard classification in this section.

Water-Reactive: A chemical that will react to water to release a gas that is either flammable or presents a health hazard.

CHEMICAL INVENTORY LIST

The Scientific Materials Manager will maintain a chemical inventory list (the “list”) of the hazardous chemicals used by the Science Departments (Chemistry, Biology, Physics), and update the list as necessary. This list will be updated immediately upon receipt of any chemical. The identity of each chemical on the list must match the name on the container label and the name on the SDS. This list will be sent to the Emergency Preparedness Manager/Safety Specialist on an annual basis for updates to the program. The chemical inventory list is available upon request.

LOCATION OF HAZARD COMMUNICATION PROGRAM

The written Hazard Communication Program is available for review by all Benedictine University faculty and staff at the following central location:

S:\University Info\Policies and Procedures\Emergency Information

Students may request a copy of the program from any supervisory personnel.

RESPONSIBILITIES

Responsibility for the administration of this program rests with the Emergency Preparedness Manager/Safety Specialist. The Emergency Preparedness Manager/Safety Specialist, in cooperation with department deans, department chairs and supervisors, will have the responsibility of issuing guidelines and procedures necessary for the implementation and coordination of the Hazard Communication Program.

Deans

The deans are responsible for ensuring that department chairs and supervisors under their supervision comply with all federal, state and local safety regulations and University policies.

Department Chairs and Supervisors

Department chairs and supervisors are responsible for the training of departmental faculty, staff and student employees. Lab assistants, teaching assistants and interns who perform work for the University, even though not paid directly, are quasi employees; therefore, are treated as employees.

Department chairs and supervisors have the responsibility in making sure that requirements are met for hazard communications training, the availability of SDSs, proper labeling of containers and other forms of warning, compilation of a list of hazardous chemicals used in the department, dissemination of information pertaining to the hazards of non-routine tasks, the sharing of information with contractors on chemical hazards in the work area and compilation of an annual hazardous chemical inventory list.

Department chairs and supervisors may delegate safety and health-related responsibilities to a department safety representative (e.g. scientific materials manager) but it's the responsibility of the department chair and supervisor to make sure requirements are being met.

Vendors

All contracted vendors (e.g. Sodexo) are responsible for providing their employees with a Chemical Hazard Communication Program.

LABELING

The faculty members, supervisors and/or designated department safety representative in departments storing hazardous chemicals are responsible for ensuring that all hazardous chemicals in their area are properly labeled and that the labels are updated as necessary.

1. Effective labeling may consist of affixed labels, securely attached tags, or highly visible signs posted immediately adjacent to a tank or vessel.

2. Labels on shipped or movable containers and bulk tanks and vessels must show the product identifier, signal word, hazard statement, pictogram (see following page), precautionary statement(s) and the name, address and telephone number of the chemical manufacturer, importer or other responsible party. For unclassified hazards, the label shall include the name of the chemical, the name, address and telephone number of the manufacturer, importer, or other responsible party, and, provide as supplementary information, a description of the unclassified hazard and appropriate precautionary measures to ensure the safe handling and use of the chemical.

3. Workplace labeling is required where transfers of chemicals are made from a large labeled container to a smaller container. Workplace labels must meet one of the following two options:

    a. Meet the requirements of supplier labels with the exception that the name, address, and phone number of the chemical manufacturer, importer or distributor is not required, or
    b. Include a product identifier and signal words, pictograms, symbols or combination thereof, which provide at least general information regarding the hazards of the chemical, and which, in conjunction with the other information immediately available to employees under the Hazard Communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

4. Workplace labels shall be legible, in English and prominently displayed on the container, tank or vessel, or readily available in the work area.

5. No label is required for portable containers into which hazardous chemicals are transferred from labeled containers and which are intended only for immediate use of the employee who performs the transfer.

6. A label is required on the portable container if a different employee is working with the chemical and not the employee who performed the transfer. This label must consist of the product identifier and signal word, pictograms, symbols or combination thereof.

7. Labels shall not be defaced or removed on any containers, tanks or vessels of hazardous materials.

PICTOGRAMS

Flame over circle	**Flame**	**Exploding Bomb**
		
• **Oxidizers**	• Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self Reactives • Organic Peroxides	• Explosives • Self Reactives • Organic Peroxides
Skull and Crossbones	**Corrosion**	**Gas Cylinder**
		
• Acute toxicity (severe)	• Corrosives	• Gases under pressure
Health Hazard	**Environment**	**Exclamation Mark**
		
• Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity	• Aquatic Toxicity	• Irritant • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritation • Hazardous to Ozone Layer

SAFETY DATA SHEET (SDS)

A safety data sheet is a 16 section written document describing the identification of the common name(s) of the product, chemical substances, physical and health hazards, entry route(s), permissible exposure limit, and any precautions or controls for safe use. The document also includes emergency first aid procedures; the date the SDS was prepared; and the name, address and telephone number of the chemical manufacturer or importer.

Department chairs, supervisors and/or the departments designated safety representative must ensure that a safety data sheet is obtained for each chemical used or stored in the department and kept in a central location readily accessible to all employees during working shifts. A cabinet with SDSs is located on the 3rd floor of Birck Hall on the north end by the elevator.

When a department receives an SDS for a hazardous material a copy must be sent to the Scientific Materials Manager to be kept in a secondary file. It should also be entered into MSDSonline, an electronic file accessible by employees and students.

All SDSs will be maintained and remain accessible to employees for thirty (30) years after Benedictine University stops using the product.

When requested, contracted vendors must supply Benedictine University with the SDS for any hazardous chemical they may use during their time on site.

SDS REQUESTS

Employees requesting a copy of an SDS may make a written request using the *SDS Request* form obtainable through the Emergency Preparedness Manager/Safety Specialist.

Employee representatives, the employees' treating health professional, emergency service agencies, the Department of Labor and contractors can also request SDSs. In a non-emergency situation, a copy of the requested SDS will be sent within five working days of receipt of the request.

Any department storing hazardous materials, in cooperation with the Emergency Preparedness Manager/Safety Specialist, will make SDSs readily available to contracting employees for those substances they may be exposed to during normal conditions or in a foreseeable emergency.

TRAINING

All new employees, whose work potentially exposes them to hazardous chemicals during normal operations or in foreseeable emergencies, will receive information regarding the Chemical Hazard Communication Program and the Employee Right to Know and Right to Understand Law as part of the hiring process.

It is the responsibility of the department chair, supervisor and/or the delegated department safety representative to inform Human Resources of employees requiring hazardous communication training

and working with the Emergency Preparedness Manager/Safety Specialist to insure required training is completed.

In cooperation with the Emergency Preparedness Manager/Safety Specialist, department chairs, supervisors and/or the delegated department safety representative must provide safety training to faculty, staff and student employees under their supervision whose work potentially exposes them to hazardous chemicals during normal operations or in foreseeable emergencies. Additional training must be provided whenever a new health or physical hazard not covered in previous training is introduced into their work area.

The department chair, supervisor and/or the delegated department safety representative contemplating a non-routine task will ensure that employees are informed of chemical hazards associated with the performance of the task and the appropriate protective measures before the work begins. For non-routine tasks training will include but is not limited to chemical spills, chemical clean-up, and emergency response procedures involving chemicals.

Lab assistants, teaching assistants and interns who perform work for the University, even though not paid directly, are quasi employees; therefore, are treated as employees and must be trained as such.

If training is done through the web-based, on-line training program, training records will be kept in this data base. If training is done using a method other than the on-line training program, a copy of the training record must be forwarded to the Emergency Preparedness Manager/Safety Specialist.

Contact the Emergency Preparedness Manager/Safety Specialist for guidelines on and/or set-up of training.

The following training and information should be provided to each employee by the department chair, supervisor and/or the delegated department safety representative:

- A summary of the standard and the purpose, location and availability of the written program, the list of hazardous chemicals, and associated safety data sheets.
- Informing employees of any operations in their work area where hazardous chemicals are present.
- How to read chemical labels and review SDSs to obtain appropriate hazard information.
- The physical and health hazards of the chemicals in the work area, including the likely symptoms or effects of overexposure.
- The methods and observation techniques used to determine the presence of a hazardous chemical release. Detection methods may include monitoring devices, visual appearances and odor.
- The measures the department has implemented to minimize employee exposure to hazardous chemicals. These measures may include engineering controls, specific work practices, and the use of personal protective equipment employees must follow to minimize chemical exposure.
- The emergency procedures to initiate in the event an employee is exposed to a hazardous chemical.

If an employee or student has been exposed to a hazardous chemical refer to the Chemical Exposure Incident Procedure section of this program for instruction.

CHEMICAL SPILLS

In the event of a chemical spill, the severity of the spill should be assessed by a faculty member, lab coordinator, or scientific materials manager. Employees can clean-up chemical spills ONLY when all of the following conditions are met:

- The chemical spill can be cleaned-up in ten minutes or less.
- Written standard clean-up procedures have been developed.
- Employees are trained to safely clean-up chemical spills.
- Employees wear appropriate personal protective equipment.
- Appropriate clean-up supplies are readily accessible.

If any of the above conditions cannot be met, then the incident will be classified as a major spill and the area should be evacuated and call 911. Notify the Emergency Preparedness Manager/Safety Specialist who will contact the appropriate vendor for clean-up of the chemical spill. An Incident Report should be completed. See the Chemical Exposure Incident Procedure section of this program for instruction.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

A. MATERIALS HANDLING

- Gloves must be worn when handling corrosive, toxic, or flammable materials. Failure to do so will result in removal from the lab. Choice of what type of glove material is appropriate for specific lab activities lies at the discretion of the lab coordinator, faculty, and scientific materials manager. If an allergy exists for a specific glove material, the faculty or staff should be informed immediately.
- Hands should be washed after removal of gloves.
- Lab coats must be worn when handling corrosive, toxic, bio-hazardous, or flammable materials. Failure to do so will result in removal from the lab.
- All chemicals should be handled inside a fume hood whenever possible, especially when working with volatile materials that may present a respiratory hazard.
- Chemicals are never to be intentionally smelled or inhaled.
- Chemicals and equipment should not be removed from the laboratory by students without permission.

B. EYE PROTECTION

- Students, faculty, staff and visitors in laboratories must wear approved safety glasses, goggles, or face shields at all times when eye hazards are a possibility. Failure to do so will result in removal from the lab. The choice of which form of eye protection to use lies at the discretion of the faculty and staff overseeing the laboratory.
- Approved safety glasses must be worn when impact or projectile hazards are possible. Such hazards include but are not limited to work with pressurized gases, vacuum equipment, or glassware under pressure or vacuum.

- Approved goggles must be worn when chemical splashes are possible.
- Contact lenses can be worn provided approved eye protection is worn. Contact lenses are not recommended where chemical splashes are possible.
- Splash-proof safety goggles will be worn at all times for all chemistry laboratories.

C. EYE WASHES AND SHOWERS

- Safety showers and emergency eye washes are strategically located throughout the Birck Hall of Science. Faculty and lab coordinators will inform students of their location and proper use.
- Facilities Management will flush the eye washes and safety showers on a scheduled regular basis to verify that the units are working and to clear the lines of debris. Documentation of functionality will be maintained and kept in the lab prep area in Birck Hall 117.

CHEMICAL EXPOSURE INCIDENT PROCEDURE

In the event an employee or student may have been exposed (inhalation, ingestion or physical contact) to a hazardous chemical, after the necessary medical care has been provided, the supervisor must complete an Incident Report form. The following information should be included on the form:

- The specific chemical(s)
- The duration of the exposure
- The type of exposure (inhalation, ingestion, skin contact)
- Personal protective equipment used

Human Resources and the Emergency Preparedness Manager/Safety Specialist shall retain a copy of this form for thirty (30) years as an employee exposure record.

CHEMICAL HAZARD COMMUNICATION STANDARD SUMMARY

The Hazard Communication Standard is based on a simple concept – that employees have both the need, right to know and right to understand the identities and hazards of the chemicals they are potentially exposed to when working. They also need to know what protective measures are required. This knowledge should reduce work-related injuries and illnesses caused by chemical exposure.

The Hazard Communication Standard establishes uniform requirements to assure that the hazards of all chemicals imported, produced or used in U.S. workplaces are evaluated. The hazard information and associated protective measures are to be transmitted to affected employees and potentially exposed employees.

Chemical manufacturers and importers must convey the hazard information they learn from the evaluations to employers by labels on containers and safety data sheets. All covered employers must have a hazard communication program to convey this information to their employees through container labeling and training.

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Confidential

Hazardous Chemical Exposure Incident Report

Please print all information

DEMOGRAPHICS	
Today's Date:	
Last Name:	First Name:
Date of Birth:	Home Telephone #:

EXPOSURE INCIDENT	
Date of Exposure:	Time of Exposure: ☐AM ☐PM
Where did the incident take place?	
Nature of the incident:	
What task(s) were you performing when the exposure took place?	
List chemical(s), amount and concentration in use during incident:	

Chemical Name	Amt.	Conc.	Chemical Name	Amt.	Conc.
1.			2.		
3.			4.		

CONTROL MEASURES
Provide details about control measures in use at the time of exposure (e.g. Fume Hood)

PERSONAL PROTECTIVE EQUIPMENT (PPE)	
Were you wearing PPE? ☐YES ☐NO	If YES, describe what type:
Did the PPE fail? ☐YES ☐NO	If YES, describe how:

INCIDENT EXPOSURE

What part(s) of your body was exposed?	Estimate the size or area of your body that was exposed.
How long did the exposure last?	
Is a Safety Data Sheet (SDS) attached to this report? ☐YES ☐NO	
What type of exposure occurred: ☐Inhalation ☐Ingestion ☐Skin Contact	
SIGNS AND SYMPTOMS	
Are signs and symptoms present? ☐YES ☐NO	
If yes, list them below:	
1.	2.
3.	4.
5.	6.
Are the signs and symptoms those documented on the SDS? ☐YES ☐NO	
Is exposure monitoring data available? ☐YES ☐NO	

_____	_____
Signature	Emergency Preparedness Mgr./Safety Spec.
_____	_____
Date	Date

By signing the Consent to Release Information you are giving consent to release information within this form only to those individuals that we are permitted to or required to disclose the information.

_____	_____
Signature for Consent to Release Information	Emergency Preparedness Mgr./Safety Spec.
_____	_____
Date	Date

Return the completed form to the Emergency Preparedness Manager/Safety Specialist. A copy of the form will be passed on to Human Resources if you are an employee and to University Police if you are a student or visitor.

This document, including any attachments and appended messages, is for the sole use of the intended recipients and may contain confidential and legally protected information. In addition, state and federal privacy laws prohibit the unauthorized disclosure of personally identifiable health information. If you are not the intended recipient, any review, dissemination, distribution, copying, storage or other use of all or any portion of this document is strictly prohibited. If you received this document in error, please immediately notify the sender and destroy this document in its entirety. Benedictine University will keep this form and any related documentation on file for plus 30 years.