

**Gwynedd Mercy University  
Hazard Communication Program**

***“Right-To-Know”***

Office of Environmental Safety  
Developed March 2007 in accordance with  
OSHA Hazard Communication Standard 29 CFR 1910.1200  
H. A. Oliver-Kozup  
Revised 2012 Michele Brown  
University Update 2014

**Gwynedd Mercy University**  
**Hazard Communication Program**  
**“Right to Know”**

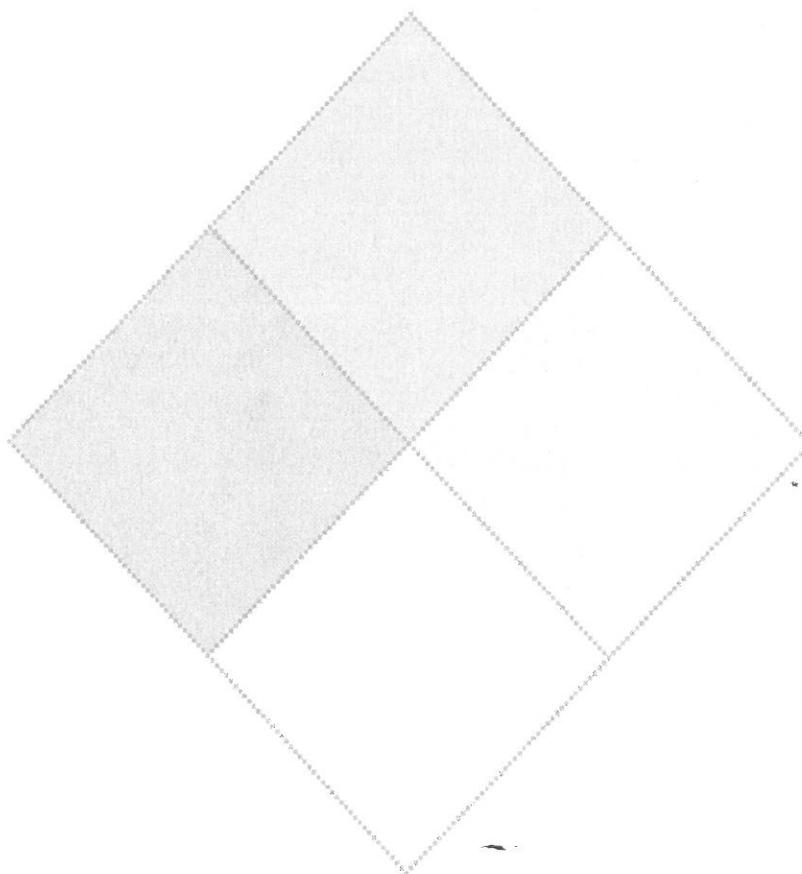
It is the commitment of Gwynedd Mercy University to maintain an environmentally and chemically safe campus; one that will not adversely affect the health, safety, and well-being of students, employees, visitors, and neighboring communities. This Hazard Communication Program, as outlined in the following sections, has been prepared to comply with the Occupational Safety and Health Administration’s (OSHA) 29 CFR 1910.1200 Subpart Z: Hazard Communication Regulation. This program has been approved by the undersigned individual representing Gwynedd Mercy University.

*Kevin O'Flaherty*

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Kevin O’Flaherty  
Vice President for Finance and Administration

*01/27/14*

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Date



# TABLE OF CONTENTS

## ***1.0 PENNSYLVANIA HAZARD COMMUNICATION STANDARD***

### ***2.0 HAZARD COMMUNICATION PROGRAM***

- 2.1 Purpose
- 2.2 Scope

### ***3.0 PROGRAM ADMINISTRATION AND RESPONSIBILITIES***

- 3.1 The President and Vice-President
- 3.2 The Environmental Safety Manager
- 3.3 The Department of Human Resources
- 3.4 The Department Directors and Supervisors
- 3.5 The Hazard Communication Coordinator
- 3.6 Employees and Students Assistants
- 3.7 Contractors

### ***4.0 HAZARD IDENTIFICATION, EVALUATION, AND MITIGATION***

- 4.1 Hazardous Chemicals
- 4.2 Hazardous Chemical Inventory
  - 4.2.1 Inventory Management
  - 4.2.2 The Annual Inventory
  - 4.2.3 The Continuous Inventory
- 4.3 Safety Data Sheets (SDS)
  - 4.3.1 SDS Description
- 4.4 Labeling and Signage
  - 4.4.1 Food and Beverage Consumption near Hazardous Chemicals

### ***5.0 EMPLOYEE AWARENESS***

- 5.1 Routine Training
- 5.2 Non-Routine Training

### ***6.0 HAZARDOUS WASTE MANAGEMENT***

### ***7.0 RECORD RETENTION***

- 7.1 Employee Medical Records
- 7.2 Employee Exposure Records
- 7.3 Employee Training Records

### ***8.0 EXPOSURE MONITORING***

### ***9.0 CONTRACTORS***

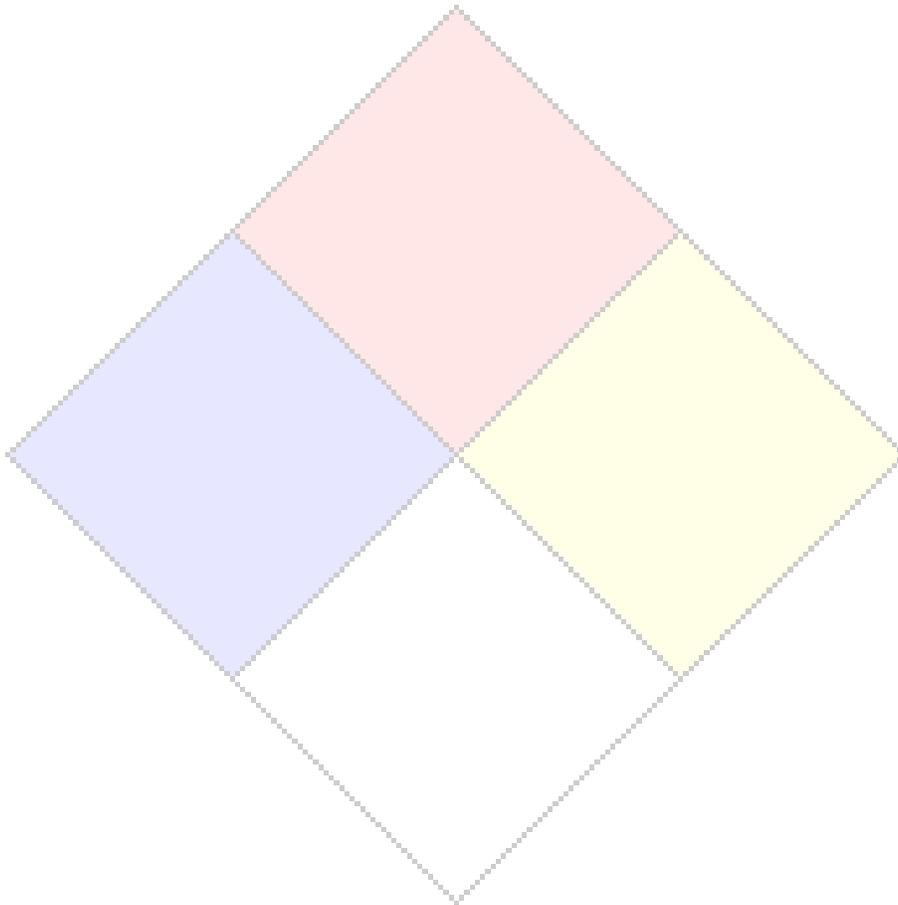
### ***10.0 LABORATORIES***

***APPENDICES\****

APPENDIX A	Glossary and Common SDS Terms
APPENDIX B	Sample Safety Data Sheet (SDS)
APPENDIX C	Sample Hazard Label
APPENDIX D	OSHA Job Safety and Health Right to Know Brochure
APPENDIX E	Chemical Information List (CIL)
APPENDIX F	CIL Guidance
APPENDIX G	OSHA Hazard Communication Standard

*\* Appendices may be found on the Environmental Safety website*

<http://www.gmercyu.edu/about-gwynedd-mercy/administration/environmental-safety>



## **1.0 PENNSYLVANIA HAZARDOUS COMMUNICATION STANDARD**

*The Pennsylvania Worker and Community Right to Know Act requires that information about hazardous substances in the workplace and in the environment is available to public sector employees and employees of private sector workplaces not covered by the Federal Occupational Safety and Health Administration (OSHA) Hazard Communication Standard and to all persons living or working in the state. Employee rights listed below are further defined in the Worker and Community Right to Know Act (P.L. 734, No. 159) and Regulations.*

*Employee Workplace Notice - Public sector employers (including state and local government agencies and public schools and public universities) and private sector employers not covered by the OSHA Hazard Communication Standard must post this notice informing employees of their rights under the law. This notice must be posted prominently in the workplace at a location where employee notices are normally posted.*

*Training - Public sector employers and private sector employers not covered by the OSHA Hazard Communication Standard must provide an annual education and training program to employees exposed to hazardous substances. The training program may be presented either in written form or in training sessions.*

*Hazardous Substance Survey Form - The Hazardous Substance Survey Form (HSSF) provides an inventory of the hazardous substances found in the workplace during the prior calendar year. All employers must complete a workplace HSSF annually. Public sector employers and private sector employers not covered by OSHA must post the HSSF prominently in the workplace and must provide a copy to any employee upon request.*

*Work Area List - The Work Area List names the hazardous substances used or produced in a specific work area in the workplace. Public sector employers and private sector employers not covered by the OSHA Hazard Communication Standard must update a Work Area List at least annually, must provide a copy to any employee of the work area upon request, and must offer a copy to any employee newly assigned to that work area.*

*Safety Data Sheets - The Safety Data Sheets (SDS) provide detailed information about a hazardous substance. In public sector workplaces and private sector workplaces not covered by the OSHA Hazard Communication Standard, SDS must be accessible in the work area where the hazardous substance it describes is used. SDS must be readily available to employees without the intervention or permission of management or supervisors, and any employee may obtain and examine SDS for any hazardous substance in the workplace. If an employee's request to obtain a copy of SDS is made to the*

*employer in writing and, after five working days from the date the request is made, the employer fails to furnish the employee with SDS in the employer's possession or fails to provide the employee with proof of the employer's effort to obtain the requested SDS from the manufacturer, importer, supplier or distributor and from the Department of Labor and Industry, the requesting employee may refuse to work with the substance.*

*Environmental Hazard Survey Form - The Environmental Hazard Survey Form (EHSF) provides information about any environmental hazards emitted, discharged or disposed of from the workplace. All employers are required to complete an EHSF when and if requested to do so by the Department of Labor and Industry. If an EHSF has been completed by a public sector employer or a private sector employer not covered by the OSHA Hazard Communication Standard, a copy must be provided to any employee upon request.*

*Labeling - All containers and parts of pipelines of hazardous and non-hazardous substances in public sector workplaces and private sector workplaces not covered by the OSHA Hazard Communication Standard must be properly labeled. Employers must ensure that each label, sign, placard or other operating instruction is prominently affixed and displayed on the container or part of a pipeline system so that employees can easily identify the contents.*

*Health and Exposure Records - Public sector employers and private sector employers not covered by the OSHA Hazard Communication Standard must maintain and allow employee access to records of employee chemical exposure to the extent required by OSHA (under 29 CFR 1910.1200) or by the Mine Safety Health Administration (under 30 CFR 70.210 and 71.210).*

*Non-discrimination - If a public sector employee or an employee of a private sector workplace not covered by the OSHA Hazard Communication Standard believes that he or she has been discharged, disciplined or discriminated against by an employer for exercising his or her rights granted under the Pennsylvania Worker and Community Right to Know Act, that employee has 180 days from the date of the alleged violation to file a written complaint with the Department of Labor and Industry, Bureau of PENNSAFE.*

## **2.0 HAZARD COMMUNICATION PROGRAM**

### 2.1 Purpose

The purpose of the Hazard Communication Program (HCP) is to address the unique chemical hazards associated with Gwynedd Mercy University, to establish a mechanism for their management, and to ensure the health and safety of all University personnel working with or around these chemical substances. The Occupational Safety and Health Administration (OSHA) standard 29 CFR 1910.1200 Subpart Z requires all employers using hazardous materials to establish, implement and maintain a Hazard Communication Program. This HCP is intended to set procedures and guidelines to:

- ❖ Identify all hazardous materials used in a workplace
- ❖ Train these employees in the hazards of the materials and provide access to SDS

In fulfillment of this purpose,

- ❖ All hazardous materials must be properly labeled; and
- ❖ Training must be provided for all employees on the requirements of the HCP.

When at all possible, Gwynedd Mercy University is committed to following the below guidelines to reduce chemicals and minimize hazards.

**IF ONE CAN AVOID, OR MINIMIZE THE USE OF A HAZARDOUS MATERIAL, DO SO.** It is necessary for all employees to not only use, store, handle, and dispose of all hazardous materials appropriately, but to first assess whether a less hazardous or even non-hazardous substitute exists. For instance, some industries have eliminated their use of organic solvents and returned to using soap and water for some processes. It is necessary for to evaluate each case individually to determine whether it is appropriate to substitute products.

**REDUCE RISK BY REDUCING INVENTORY.** The basic concept underlying hazardous materials legislation and regulation is to reduce risk by minimizing inventory on hand. The elimination of hazardous materials involves not only substituting less hazardous products for those more hazardous ones, but also to reduce stock. Cost savings achieved by bulk purchasing practices are more than lost by the costs associated with storing hazardous materials properly, or providing for their disposal due to outdated products.

**A GOAL OF THE HAZARD COMMUNICATION PROGRAM IS TO ENSURE THAT ALL PERSONNEL RESPONSIBLE FOR SELECTING MATERIAL FOR PURCHASE HAVE FULLY EVALUATED THE RELATIVE HAZARDS OF AND THE NECESSITY FOR USING THAT SPECIFIC MATERIAL.** It is the intention of the program to train supervisors and employees in performing such an evaluation. This HCP requires that this evaluation be routinely made as new information and products become available.

## 2.2 Scope

The Hazard Communication Standard 29 CFR 1910.1200 Subpart Z applies to all employers whose employees may be exposed to hazardous chemicals. Hazardous chemicals are defined by regulation, and are detailed in section 4.1 of this program. All hazardous chemicals found in the workplace under normal conditions of use or reasonable foreseeable emergency conditions (i.e. spill or release of chemical) are included with the following exceptions:

- ❖ Hazardous waste
- ❖ Tobacco products
- ❖ Wood products, except chemically treated wood or wood dust, which is NOT exempt
- ❖ Articles, as defined in the standard (manufactured items; not excluded are hazardous substances used in the articles)
- ❖ Food, alcoholic beverages, cosmetics and prescription or over-the-counter drugs intended for personal use by university personnel
- ❖ Consumer products or hazardous substances, as defined in the Consumer Product Safety Act (15 U.S.C. 2051) and Federal Hazardous Substances Act (15 U.S.C.1 261), where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposures that could reasonably be experienced by consumers when used for the purpose intended; unless employee exposure is greater than exposure to the ordinary consumer (e.g., cleaning products used by custodians in the workplace are regulated by the Hazard Communication Program)
- ❖ Ionizing and Non-ionizing radiation
- ❖ Biological hazards

\*\*\*Laboratories have a different responsibility under the law. The Hazard Communication Program regulation pertaining to laboratories is 29 CFR 1910.1450, and is detailed in the *Gwynedd Mercy University Chemical Hygiene Plan*. This program regulates chemical usage and hazards in laboratory settings. **Those employees engaged in laboratory use of hazardous chemicals are not necessarily covered under this program, and should refer to the Chemical Hygiene Plan for guidance.\*\*\***

### **3.0 PROGRAM ADMINISTRATION AND RESPONSIBILITIES**

The following departments and personnel shall be responsible for implementing this program and its policies to ensure the health and safety of the University.

#### **3.1. The President and Vice-President**

The President of the University has the ultimate responsibility for hazard communication within the institution. The Vice-President for Finance and Administration is responsible for the oversight of all components of the Hazard Communication Program (HCP) including but not limited to its authorization, development, and enforcement as well as the coordination of funding for its implementation.

#### **3.2 The Environmental Safety Manager**

The Environmental Safety Manager (ESM) is responsible for the implementation of the HCP and for the promotion and maintenance of a safe, healthy, and environmentally responsible workplace as well as but not limited to the following:

- ❖ Development and maintenance of the written Hazard Communication Program
- ❖ Periodic review of the program as new regulations are promulgated
- ❖ Periodic review and assessment of the implementation and management of the written program
- ❖ Provide guidance and technical assistance to departments regarding the program
- ❖ Provide results of hazard analyses and monitoring results upon request to affected employees
- ❖ Promote campus compliance with the program
- ❖ Provide a means by which employees can report suggestions, complaints, and concerns regarding the campus Hazard Communication Program.

#### **3.3. The Department of Human Resources**

- ❖ Assist the ESM in the coordination and administration of personnel who fall within the auspices of the Hazard Communication Program
- ❖ Analyze job descriptions relevant to potential hazardous chemicals exposure
- ❖ Coordinate and schedule hazardous chemical exposure examinations of personnel covered by the HCP
- ❖ Document and file all medical testing records
- ❖ Make available copies of medical results to all affected employees
- ❖ Provide affected personnel with follow-up medical examinations in accordance with the requirements of this program.

### 3.4 The Department Directors and Supervisors

Department directors and supervisors are responsible for Hazard Communication Program compliance within their departments. Directors shall ensure that all departmental supervisors recognize their mandate in carrying out this program. Supervisors at all levels hold the primary responsibility for ensuring that the HCP is properly understood and implemented by their employees. The program specifically benefits the employee who has hands-on contact with, or works near hazardous materials. Health and safety assessments must be developed by the director or the supervisor, whoever has the most familiarity with the procedures that require the use of hazardous materials. The responsibilities of the directors and supervisor include but are not limited to the following:

- ❖ Acquire and maintain comprehensive knowledge of the program requirements
- ❖ Act as the control point for all information flowing to or from a department regarding the Hazard Communication Program
- ❖ Identify and provide information as it relates to the HCP to all individuals who need to know this information in the performance of their tasks
- ❖ Implement and manage the day-to-day tasks associated with the program; advise department heads and supervisors on compliance
- ❖ Ensure that an inventory of all non-exempt products containing hazardous chemicals within work areas for which they are responsible is conducted and maintained, then submitted to ESM
- ❖ Ensure all products are labeled with product name and appropriate hazard warnings, which will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical. The use of all products containing hazardous materials is to be restricted by the supervisor until they are correctly labeled
- ❖ Compile Safety Data Sheets (SDS) for all non-exempt products used within cognizant areas, and make the SDS available to all workers in these areas during their work shift
- ❖ Ensure that employees are trained regarding specific hazards of all chemical products encountered in their work area
- ❖ Document and retain departmental training and training records
- ❖ Provide and maintain appropriate personal protective equipment as required, and ensure proper usage by affected personnel

### 3.5 The Hazard Communication Coordinator

The Hazard Communication Coordinator is an appointed individual in each department that will work with the ESM to develop and maintain annual chemical inventory lists for their department. The Coordinator should be able to provide accurate, detailed information to any employee requesting knowledge about the chemicals used in their workplace. The responsibilities of the Coordinator include but are not limited to the following:

- ❖ maintain the chemical inventory for the department,
- ❖ make sure the list is always up to date, and
- ❖ provide accurate information to employees about the chemicals used in their department.

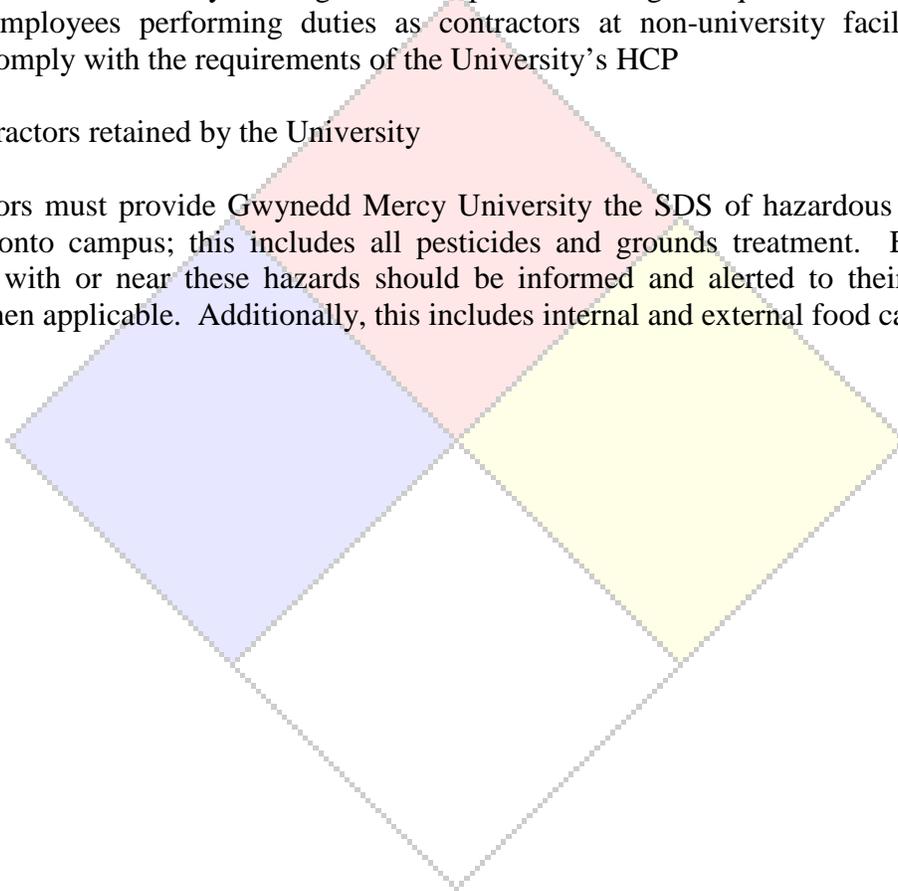
### 3.6 Employees and Students Assistants

All employees of Gwynedd Mercy University are responsible for ensuring that they follow the procedures and faithfully implement the appropriate responsibilities set forth in the HCP. Employee or Student Assistant responsibilities include but are not limited to the following:

- ❖ Become familiar with the requirements of the HCP prior to performing activities covered by the program
- ❖ Abide by requirements established by the program and apply to the greatest extent possible the safety and health precautions specified by the University
- ❖ Report any problems observed which could compromise health and safety to his or her immediate supervisor
- ❖ Routinely utilize appropriate safety clothing and equipment
- ❖ Attend basic safety training and area-specific training as required under HCP
- ❖ Employees performing duties as contractors at non-university facilities shall comply with the requirements of the University's HCP

### 3.7 Contractors retained by the University

Contractors must provide Gwynedd Mercy University the SDS of hazardous chemicals brought onto campus; this includes all pesticides and grounds treatment. Employees working with or near these hazards should be informed and alerted to their potential harm, when applicable. Additionally, this includes internal and external food caterers.



## ***4.0 HAZARD IDENTIFICATION, EVALUATION AND MITIGATION***

The Hazard Communication regulation, 29 CFR 1910.1200, specifies certain materials and defines categories of materials included in the program. It is the manufacturers' and importers' responsibility to assess the hazard of the products that they market, and to make this information available via the Safety Data Sheets (SDS). It is the responsibility of the employer that uses the materials in the workplace to keep track of the materials (inventory), assess the potential hazard posed to their workers, and to train the workers in these hazards.

### ***4.1 Hazardous Chemicals***

The OSHA standard requires a list of hazardous chemicals in the workplace as part of this program. The list serves as an inventory of everything for which SDS must be maintained. Initially, however, it serves as an indicator of the scope of the program required in each particular department. Sometimes people think of "chemicals" as being solely liquids in containers. The HCP, however, covers chemicals in all physical forms – liquids, solids, gases, vapors, fumes, and mists – whether or not they are "contained". The hazardous nature of the chemical and the potential for exposure are the factors, which determine whether a chemical is covered. Hazardous chemicals, as defined by the regulation and included within this program are listed in any of the following:

- ❖ 29 CFR 1910, subpart Z, Toxic & Hazardous Substances (the Z List)
- ❖ *Threshold Limit Values for Chemical Substances in the Work Environment* American Conference of Governmental Industrial Hygienists, (latest edition)
- ❖ *Annual Report on Carcinogens*, National Toxicology Program (NTP), (latest edition)
- ❖ *Monographs*, International Agency for Research on Cancer (IARC), (latest editions)

Other chemicals, which present a personal hazard, as determined by scientific evidence are also included. If there is evidence to indicate that a component present in a chemical mixture in concentrations of less than one percent (or in the case of carcinogens, less than 0.1 percent) could be released in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health risk to employees in those concentrations, the mixture shall be presumed to present a hazard.

The lists cited above are relatively static, and do not normally undergo significant change. Recognizing this, however, the OSHA regulation was written so as to incorporate advancing knowledge of those substances that constitute a hazard to workers. Given the difficulty of each supervisor individually determining the potential hazard of each chemical or product, it is clear that a simpler approach must be taken. Therefore, all

hazardous chemicals with a National Fire Protection Agency (NFPA) health, flammability, or reactivity rating of 2 or higher, which fall within the scope of this program, shall be used and maintained in accordance with applicable Federal, State and local regulations.

Use of any of the following materials may be subject to specific Occupational Safety and Health standards. The list includes but is not limited to the following:

2-Acetylaminofluorene	4-Dimethylaminoazobenzene
Acrylonitrile	Ethyleneimine
4-Aminodiphenyl	Ethylene oxide
Arsenic (inorganic)	Formaldehyde
Asbestos, tremolite, anthophyllite and actinolite	Lead
Benzene	Methyl chloromethyl ether
Benzidine	4, 4'-Methylene bis (2-chloroaniline)
1, 3-Butadiene	Methylene Chloride
Cadmium	4, 4'-Methylenedianiline
bis-Chloromethyl ether	alpha-Naphthylamine
Cotton dust	beta-Naphthylamine
1, 2-Dibromo-3-chloropropane	4-Nitrobiphenyl
3, 3'-Dichlorobenzidine (and salts)	N-Nitrosodimethylamine
	beta-Propiolactone
	Vinyl Chloride

Users of these materials must comply with the provisions of the applicable substance-specific standard if employee exposure routinely exceeds the OSHA-mandated permissible exposure limit (or Action Level, if specified). Copies of these standards may be obtained through the OSHA Web site at <http://www.osha.gov/>. Additional information concerning monitoring is contained in the Exposure Monitoring section of this program.

All hazardous chemicals used or stored at Gwynedd Mercy University are purchased materials. There are no manufactured or intermediate hazardous chemicals on campus subject to this HCP. Chemical manufacturers or distributors are responsible for determining material hazards. Additional requirements not addressed by this HCP apply to manufacturers, distributors and importers of hazardous materials. The ESM must be notified in advance if any employee on campus plans to:

- ❖ **Manufacture** chemical materials for non-research use or distribution
- ❖ **Distribute** hazardous chemicals to non-University entities
- ❖ **Import** hazardous materials from other countries for the purpose of supplying them to distributors or non-University entities

## 4.2 Hazardous Chemical Inventory

### 4.2.1 Inventory Management

Inventory management is an essential part of the Hazard Communication Program because it is the basis for all training requirements. Complete, accurate and up-to-date inventories are essential to protect the worker from a chemical's hazardous properties, as well as to protect the supervisor from potential liability by failing to warn and train the employee. Departments are required to appoint a Hazard Communication Coordinator to perform an annual inventory of chemical products on-hand. In addition, it is essential that an up-to-date listing of chemicals on hand be readily available for all departmental personnel.

It is important to recognize the dynamic process of inventory management. Hazardous materials inventories are necessary for many different regulatory purposes today, including Uniform Fire Code requirements, Emergency Planning, and Hazard Communication. Therefore, the inventory form being used for this program may request information that extends beyond this specific program. The basic concept of legislation related to hazardous materials is to reduce risk to personnel and property by reducing inventory. Therefore, it should be emphasized at every opportunity by those either coordinating or conducting an inventory that elimination of materials from on-hand supplies is to be promoted. It is necessary to assure that any hazardous waste generated by reducing inventories is handled only as per established University procedure.

### 4.2.2 The Annual Inventory

The Emergency Planning and Right-To-Know Act of 1986 (Title III of the Super Fund Reauthorization Act) requires facilities that make, store, or use certain chemicals to file reports with the state commission and local committees, if hazardous chemicals are present in regulated quantities. This inventory is required to be reported annually to specific local, state, and federal agencies. ***In order to ensure that these reports are submitted, the law allows for penalties of \$25,000 per occurrence, plus \$25,000 per day for each day the violation continues.*** Each director and/or supervisor is responsible for obtaining completed annual inventories from each work site in that department, if applicable. It is the work site supervisor's responsibility to assure that work sites within their cognizance have completed an annual inventory. The procedure to follow for completing inventories will be as follows:

- ❖ The chemical inventory process is initiated by the ESM on, or before, November 1 of each year based on the requirements set forth in Appendix E. A packet will be sent out to all department directors or supervisors which will include comprehensive checklist and a sample CIL. At that time, the Hazard Communication Coordinator will develop or edit the CIL.
- ❖ All workspaces and storage areas throughout the University must submit an annual chemical inventory to the ESM by January 15 of each year, for the

previous calendar year. This applies to offices, laboratories, classrooms, office or lab storage areas, janitor's closets, dark rooms, maintenance areas, and remote sites.

- ❖ Department Directors or the Hazard Communication Coordinator shall ensure that a complete annual chemical inventory is performed in applicable workspaces and storage areas within their departments as per the guidelines set forth by this program.
- ❖ The ESM will provide assistant for the proper completion of the annual chemical inventory, tabulate and compile the data received, and submit annual summary reports to appropriate local, state and federal authorities and agencies.
- ❖ Supervisors arrange for proper hazardous waste disposal in conjunction with the ESM

#### 4.2.3 The "Continuous" Inventory

As stated, each department will perform an annual inventory of all nonexempt chemical products on hand. While the annual snapshot of chemicals fulfills a number of regulatory requirements, it does not provide for one major aspect of the HCP requirements. This HCP requires that employees must be trained in the hazards of a chemical prior to its usage. This in turn obligates the employer to be up-to-date at all times on the chemicals being utilized in the workplace, and mandates SDS be available in order to provide adequate training. It is essential that work areas establish procedures for acquiring the SDS and training the employee(s) in the hazards of a new product prior to its use. Therefore, it is the director's and/or supervisor's responsibility to maintain a current inventory of all products on hand or ordered, and to assure that the necessary training occurs. Each department must have procedures in place to control the selection and purchase of materials, and the acquisition and distribution of the SDS PRIOR TO EMPLOYEE USAGE OF THE PRODUCT.

#### 4.3 Safety Data Sheets Implications

The completed, continuous chemical inventory has two major implications in relation to the development and implementation of this HCP. They are as follows:

- ❖ The acquisition, dissemination, filing and accessibility of SDS
- ❖ The training of all employees

##### 4.3.1 Safety Data Sheets

SDS are a printed description of the chemicals used in the workplace. These sheets provide the employer and employees with the necessary information to use the chemicals safely and show how to deal with chemical accidents. There are a number of items, which must be completed for every SDS. A sample SDS can be found in Appendix B. These items are divided into sections which address specific issues as follows:

### *Section 1 - Identification*

- ❖ Chemical name - usually the IUPAC or CAS name is given. Other common names and trade names may also be given
- ❖ Manufacturer or distributor name, address, phone number and emergency phone number
- ❖ Recommended use and restrictions on use

### *Section 2 – Hazard(s) Identification*

- ❖ Includes all hazards regarding the chemical
- ❖ Required label elements
- ❖ Health effects - target organs or systems adversely affected by overexposure
- ❖ Carcinogenicity of material and test results
- ❖ Acute and chronic effects

### *Section 3 – Composition/Information on Ingredients*

- ❖ Includes information on chemical ingredients
- ❖ Trade name claims
- ❖ Composition of mixtures - includes all hazardous materials over 1%, and all carcinogenic materials over 0.1%.

### *Section 4 - First Aid Measures*

- ❖ Includes important symptoms/effects
- ❖ Health effects - target organs or systems adversely affected by overexposure
- ❖ Carcinogenicity of material and test results
- ❖ Acute and chronic effects
- ❖ Required treatment for exposure - inhalation, ingestion, eye contact, skin contact

### *Section 5 - Fire Fighting Measures*

- ❖ Fire and explosion data - usually includes :
  - flashpoint - temperature at which the chemical vapor can be ignited
  - auto ignition temperature - temperature at which chemical ignites spontaneously in air
  - flammability limits - concentrations in air above and below which it cannot burn
  - recommended extinguishing material, techniques and equipment

fire and explosion hazards

- ❖ Provides basic instructions for addressing a fire situation

*Section 6 - Accidental Release Measures*

- ❖ List emergency procedures, protective equipment
- ❖ Proper methods for containment and cleaning up small and large spills
- ❖ Cites specific regulations surrounding chemical spills

*Section 7 - Handling and Storage*

- ❖ Provides information regarding safe handling and storage of materials, including incompatibilities
- ❖ Provides information regarding safe usage of materials

*Section 8 - Exposure Controls/Personal Protection*

- ❖ Types of protective equipment including gloves, clothing, eye protection, respiratory protection
- ❖ OSHA's Permissible Exposure Limit (PEL) - either a time weighted average limit for an 8-hour day or a maximum concentration exposure limit for the items on the OSHA list in ppm or mg/m<sup>3</sup>.
- ❖ ACGIH Threshold Limit Value (TLV) - maximum exposure limits recommended by the American Congress of Governmental Industrial Hygienists
- ❖ Appropriate engineering controls- methods that employers can implement to reduce or eliminate a particular workplace hazard
- ❖ Administrative controls such as replacement and periodic medical exams

*Section 9 - Physical and Chemical Characteristics*

- ❖ Lists the chemical's characteristics
- ❖ Usually includes such chemical information as boiling point, melting point, vapor pressure, specific gravity, solubility in water, and evaporation rate
- ❖ Physical attributes such as physical state, appearance and odor

*Section 10 - Stability/Reactivity*

- ❖ Indicates stability of material, what causes instability and if hazardous decomposition products are possible.
- ❖ Also may include conditions to avoid

### *Section 11 - Toxicological Information*

- ❖ Route of exposure
- ❖ Related symptoms, acute and chronic effects
- ❖ Numerical measures of toxicity
- ❖ Includes one or more of the following :

LD50 (lethal dose 50) - lethal single dose (usually oral) in mg/kg (milligrams of chemical per kilogram of animal body weight) of a chemical that results in the death of 50% of a test animal population

LC50 (lethal concentration 50) - concentration dose expressed in ppm for gases or micrograms of material per liter of air for dusts or mists in which result in the death of 50% a test animal exposure administered in one exposure

### *Section 12 - Ecological Information*

- ❖ Persistence and degradability, bioaccumulative potential, mobility in soil
- ❖ May be used to provide information on the effects the material may have on plants and animals
- ❖ Provides information regarding the environmental fate of the material

### *Section 13 - Disposal Considerations*

- ❖ Description of waste residues
- ❖ Appropriate waste disposal methods including the disposal of contaminated packaging

### *Section 14 - Transport Information*

- ❖ Provides basic shipping requirements – UN number and shipping name, hazard classification, packing group, environmental hazards, bulk transport, special transport precautions
- ❖ Packaging requirements and quantity limitations

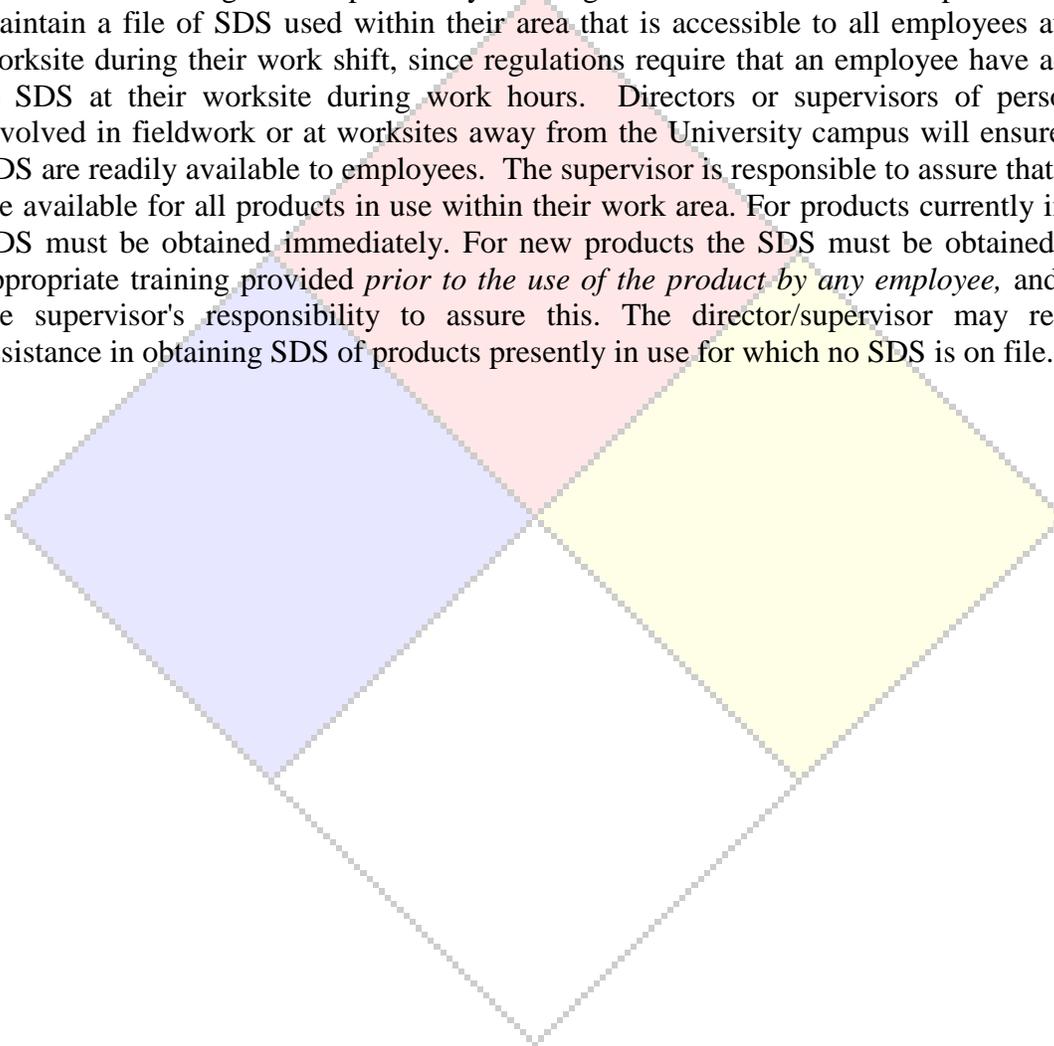
### *Section 15 - Regulatory Information*

- ❖ Safety, health and environmental regulations
- ❖ Cites pertinent EPA and OSHA regulations

*Section 16 - Other Information*

- ❖ Date of preparation of the SDS or last revision

The handling of SDS can be difficult and complex depending on the number of materials used by a department and the rate of changeover from one material to another. In addition, as SDS are updated by the manufacturer, they must be distributed in addition to the continued filing of the previously existing SDS. Each worksite supervisor shall maintain a file of SDS used within their area that is accessible to all employees at that worksite during their work shift, since regulations require that an employee have access to SDS at their worksite during work hours. Directors or supervisors of personnel involved in fieldwork or at worksites away from the University campus will ensure that SDS are readily available to employees. The supervisor is responsible to assure that SDS are available for all products in use within their work area. For products currently in use SDS must be obtained immediately. For new products the SDS must be obtained, and appropriate training provided *prior to the use of the product by any employee*, and it is the supervisor's responsibility to assure this. The director/supervisor may request assistance in obtaining SDS of products presently in use for which no SDS is on file.



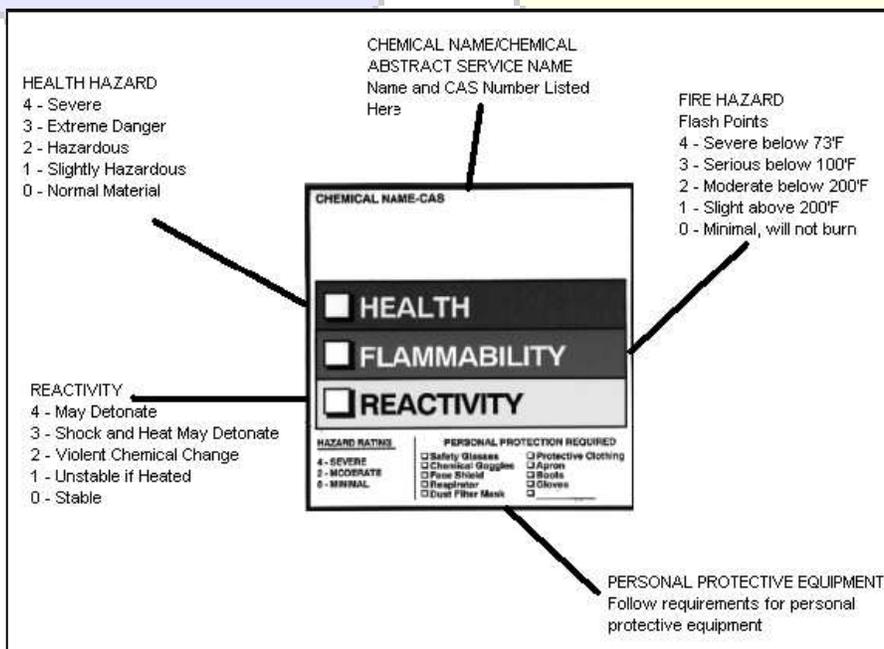
#### 4.4. Labeling

All hazardous materials used in the workplace must be labeled properly. Hazardous materials that are shipped in and used with their original container are already properly labeled by the manufacturer or distributor. Under OSHA's Globally Harmonized System all chemical labels are required to have a consistent format.

Hazardous materials which are dispensed into smaller containers than the original shipping container for distribution and use around the workplace must meet various labeling requirements. Specifically the label of all of these containers must specify:

- ❖ Identity of the hazardous chemical(s) contained therein
- ❖ Appropriate hazard warnings, or alternatively, words, pictures, symbols, or a combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under this program provides specific information regarding the physical and health hazards of the hazardous chemical.

No hazardous chemicals shall be used which are not labeled according to these criteria. It is the supervisor's responsibility to assure proper labeling and removal of any unlabeled materials from the work area. Supervisors will ensure that hazardous chemicals are labeled if left unattended. A detailed version of a hazard label as below can be found in Appendix C. Supervisors may request these labels from the ESM.



##### 4.4.1. Food or Liquid Consumption near Hazardous Chemicals

Toxic materials shall be separated from eating and drinking areas, in order to prevent possible ingestion of toxic materials. Therefore, no employee or student shall be allowed to consume or store food or beverages in any area exposed to toxic material. Additionally, no food or beverage shall be stored in a refrigerator or freezer where chemicals, biohazards, or other experimental processes are stored. No food or beverage shall be placed in a microwave oven or other heating device that is used to conduct experimental processes. Supervisors are responsible for identifying and labeling areas exposed to toxic materials with “NO EATING OR DRINKING PERMITTED IN THIS AREA” signs.

Refrigerators, freezers, and microwaves used for the storage or processing of hazardous chemicals shall be labeled with wording that positively identifies that the equipment’s usage is restricted. Words such as “CHEMICAL STORAGE ONLY” or “CHEMICAL PROCESSING ONLY” are appropriate.

## **5.0 EMPLOYEE AWARENESS AND TRAINING**

Another key component of the HCP is the training of employees. Providing information and training on hazardous chemicals are requirements for the HCP and include the following:

- ❖ Information must be available at the time of initial assignment, or when new tasks are assigned for which training has not been received; or
- ❖ Information must be available when a new hazardous chemical is introduced into the workplace. Information and training may be designed to cover categories of hazards (e. g. flammability, toxicity, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and SDS. All Gwynedd Mercy University employees shall be fully trained in all aspects of this program relative to their job assignment or area of study.

### **5.1 Routine Training**

Information and training to be provided includes:

- ❖ Details of the Hazard Communication Program, including an explanation of the labeling system and the SDS, and how employees can obtain and use appropriate hazard information (See section 4.3)
- ❖ An explanation of the purpose and contents of Safety Data Sheets, including detail and guidance on interpreting the hazard information and technical terms included in the typical SDS, and its intended application
- ❖ A description of the location and availability of the SDS file, the chemical inventory list and the Hazard Communication Program.
- ❖ Methods and observations that can be used to detect the presence of hazardous materials, such as instrumentation, odor, appearance

- ❖ Protective measures for minimizing exposure and appropriate to the hazard, such as work practices, personal protective equipment, and emergency procedures
- ❖ Appropriate handling, storage and spill procedures
- ❖ Proper procedures for submitting a supervisor's first report of injury
- ❖ Emergency and first aid procedures
- ❖ Specific hazard information which covers the non-routine work assignments which are periodically performed by employees.

Training and education provided to employees and others in the program must be documented with detailed records of training maintained by the department. The training records must be kept for the length of employment. A copy of all training records shall be forwarded to the Director of Human Resources. The ESM provides web-based safety training and will offer assistance in the training program to departments.

## 5.2 Non-Routine Training

Tasks may periodically be performed which may potentially expose employees to hazardous chemicals not ordinarily used in their normal work duties. Examples of non-routine tasks performed by the University may include: repairs, spill cleanup, servicing of equipment, annual maintenance, etc. Prior to starting work on such projects, affected personnel shall be presented information by their supervisor about hazards to which they may be exposed during the task.

This training must include the same level of detail and information necessary for routinely used hazardous chemicals. The training should, in fact, emphasize that the potential hazard of working with an unfamiliar material can be greater than with those that are handled routinely. As with all training it is necessary to document the completion and effectiveness of the training effort. The obligation of this section is to emphasize to the employer that frequency of assignment does not excuse or change the type, scope and detail of required training.

## **6.0 HAZARDOUS WASTE MANAGEMENT**

The disposal of hazardous chemicals which are outdated, substituted or otherwise unneeded, potentially creates a hazardous waste situation. There are numerous regulations which establish complex parameters for the disposal of hazardous waste. Therefore, no employee shall dispose of a potential hazardous chemical without verifying whether it is legally considered a hazardous waste. It is the responsibility of each department supervisor and all appropriate managers to assure that legal handling, storage and disposal requirements are followed.

Chemicals that are verified to be a hazardous waste must be disposed of properly. The requirements for safe and legal disposal include notifying the ESM about the chemical, labeling properly with a "Hazardous Waste" label indicating the contents and date filled, and transfer to the Central Storage Area (CSA) located in Keiss Hall 216 for the annual

chemical disposal. Hazardous chemicals labeled as waste may be stored in designated Satellite Storage Areas (SAA) on campus as long as they are transferred to the CSA within 72 hours of the full date.

## **7.0 RECORDS RETENTION**

### **7.1 Employee Medical Records**

As per 29 CFR 1910.1020, the medical record for each employee shall be preserved and maintained for at least the duration of employment plus thirty years. An exception to that include the following types of records that need not be retained for any specified period

- ❖ Health insurance claims records maintained separately from the employer's medical program and its records
- ❖ First aid records (not including medical histories) of one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and the like which do not involve medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job, if made on-site by a non-physician and if maintained separately from the employer's medical program and its records
- ❖ The medical records of employees who have worked for less than one year for the employer need not be retained beyond the term of employment if they are provided to the employee upon termination of employment.

### **7.2 Employee Exposure Records**

Each employee exposure record shall be preserved and maintained for at least thirty years after the end of employment, excluding:

- ❖ Background data to environmental (workplace) monitoring or measuring, such as laboratory reports and worksheets; these need only be retained for one year as long as the sampling results, the collection methodology (sampling plan), a description of the analytical and mathematical methods used, and a summary of other background data relevant to interpretation of the results obtained, are retained for at least thirty years
- ❖ SDS concerning the identity of a substance or agent; these need not be retained for any specified period as long as some record of the identity (chemical name) of the substance or agent, where it was used, and when it was used is retained for at least thirty years
- ❖ Biological monitoring results designated as exposure records by specific occupational safety and health standards shall be preserved and maintained as required by the specific standard.

### **7.3 Employee Training Records**

Employee training records will be retained at the office of the Director of Human Resources and in the Office of Environmental Safety.

## ***8.0 EXPOSURE MONITORING***

OSHA has established Permissible Exposure Limits (PELs) for employee exposures to certain substances. Supervisors are responsible for identifying situations to the ESM that may require exposure assessments. The ESM is responsible for coordinating assessments and/or personal exposure monitoring when requested.

PELs are specified in the OSHA regulation 29 CFR 1910, Subpart Z Toxic and Hazardous Substances which can be accessed at: <http://www.osha.gov>. PELs are usually included in the SDS. Permissible Exposure Limits are often listed as:

- ❖ Eight-hour time-weighted average (TWA) - The average concentration to which an employee may be exposed to a particular chemical for up to eight hours per day, five days per week.
- ❖ Short Term Exposure Limit (STEL) - The average concentration to which an employee may be exposed to a particular chemical for a limited period (e.g., fifteen minutes); and/or
- ❖ Ceiling (C) - The maximum concentration to which an employee may be exposed to a particular chemical at any time.
- ❖ Employee exposure should be monitored in the following circumstances:
  - (a) Initially, where there is reason to believe that an employee's exposure to a chemical substance exceeds an action level (or in the absence of an action level, the PEL) for an OSHA-regulated substance; and
  - (b) Periodically, where initial monitoring has disclosed employee exposure over the action level or PEL. The ESM will coordinate exposure assessments and/or monitoring at the request of any supervisor or employee. The employee will be provided written notification of monitoring results within 15 working days after receipt of results by the University. Supervisors may call the ESM to coordinate exposure monitoring. Where initial monitoring discloses employee exposure over the action level or PEL, the affected employee must be provided with respiratory protection until engineering controls are available to control the exposure. If engineering controls are not feasible, respiratory protection may be used on a permanent basis.

## **9.0 CONTRACTORS**

Hazardous chemicals are often used by non-GMERCYU employees during the course of construction or renovation activities. These contractors are required to implement the HCP to assure their employees are trained and protected against hazardous chemicals. Since contractors bring hazardous chemicals to their work areas, and since hazardous materials are often present in the facilities where they work, mutual access to information is required.

It is the responsibility of the department directors and supervisors to provide contractors the following information:

- ❖ Determine if the contractor must implement precautionary measures to protect his/her employees during the course of work or in foreseeable emergencies
- ❖ Determine if precautionary measures are needed to protect faculty, staff and students from hazardous materials used by the contractor
- ❖ Notify contractors of the toxic and hazardous substances to which they may be exposed while on the job site and how the appropriate SDS can be obtained
- ❖ Determine precautionary measures that need to be taken to protect contracted employees during the workplace's normal operating conditions and in foreseeable emergencies
- ❖ Explain labeling systems used by Gwynedd Mercy University. The respective department coordinator will be responsible for contacting each contractor before work is started to gather and disseminate any information concerning chemical hazards that the contractor is bringing to the workplace

## **10.0 LABORATORIES**

Instructors of teaching laboratories must comply with the requirements of the Gwynedd Mercy University Chemical Hygiene Plan. This plan is similar to the Hazard Communication Program in that employees must be notified of chemical hazards in the laboratories and the appropriate means for protection. Details of the Chemical Hygiene Program are available on the Environmental Safety website. The Hazard Communication Program impacts laboratories as indicated:

- ❖ Labels must not be removed or defaced on containers of chemicals brought into the workplace

Safety Data Sheets (SDS) received with incoming shipments of hazardous chemicals must be maintained and readily accessible to employees during each work shift;

- ❖ Laboratory employees must receive those training elements specified in the Hazard Communication Program
- ❖ Laboratory employers that ship hazardous chemicals must ensure that containers are accompanied with valid SDS, and that containers are labeled with:
  - (1) Identity of the chemical(s);
  - (2) Appropriate hazard warnings; and
  - (3) Name and address of the generator of the chemical(s).

*If anyone has questions about this program, please contact the ESM. This Hazard Communication Program will be monitored by the ESM to ensure that the program is carried out and the plan is effective. Your cooperation is essential and appreciated. Appendices for this manual may be found online at the Environmental Safety website located under Services.*