



**BARUCH COLLEGE –
CUNY**

**OSHA HAZARD
COMMUNICATION AND
NYS RIGHT TO KNOW
PROGRAM**

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1.0 INTRODUCTION

This Hazard Communication /NYS Right to Know Program has been established at Baruch College - CUNY to promote a safe work atmosphere for employees that handle, or come in contact with hazardous materials in the course of their daily work activity. This written Hazard Communication Plan complies with the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 Code of Federal Regulations 1910.1200) and the NYS Right To Know Standard (12 NYCRR Part 820)

2.0 TABLE OF CONTENTS

| Chapters | Page # |
|--|---------------|
| 1.0 – Introduction | 2 |
| 2.0 – Table of Contents | 2 - 3 |
| 3.0 – Objective | 3 |
| 4.0 – Applicability | 3 - 4 |
| 5.0 – Responsibilities | 4 |
| 6.0 – The Plan Location | 4 - 5 |
| 7.0 -- NYS Right to Know Law | 5 |
| 8.0 Hazardous Chemicals | 5 - 6 |
| 9.0 – Exposure and Medical Monitoring | 6 - 7 |
| 10.0 – Exposure Prevention and Control | 8 |
| 11.0 – Material Safety Data Sheets (MSDS) | 8 - 11 |
| 12.0 – Chemical Inventory | 11 - 12 |
| 13.0 – Chemical Labeling Requirements | 12 |
| 14.0 – Personal Protective Equipment (PPE) | 13 - 16 |
| 15.0 – Non-Routine Tasks | 16 |
| 16.0 – Contractors | 16 |
| 17.0 – Hazardous Waste Disposal | 17 |
| 18.0 - Spill Response | 17 |

| | |
|---|--------|
| 19.0 – Training | 17 |
| 20.0 – Record Keeping | 17 |
| 21.0 – Definitions | 18-22 |
| 22.0 – References | 22 |
| Appendix A – Chemical Label Example | 23 |
| Appendix B – MSDS Example | 24 -31 |
| Appendix C – MSDS Request Letter Example | 32 |
| Appendix D – Right To Know Poster | 33 |
| Appendix E – Reporting Illness and Accidents, Human Resources | 34 |
| Appendix F – OSHA Hazard Communication Standard 1910.1200 | |
| Appendix G – OSHA Air Contaminants Table 1910.1000, Table Z-1, Z-2, Z-3 | |
| Appendix H - New York State Right-To-Know Law, 12 NYCRR, Part 820 and NYS Labor Law Article 28, Section 875-883 | |

3.0 OBJECTIVE

The Chemical Hazard Communication Plan is designed to ensure the hazards of chemicals present in the workplace are evaluated, and that both employers and employees receive relevant safety information and training about those hazards. Specifically, this plan strives to:

- Safeguard the health and safety of all members of the Baruch College community
- Ensure compliance with local, state, and federal standards
- Create guidelines for implementation and maintenance of this Plan

4.0 APPLICABILITY

This plan applies to all use of hazardous materials at Baruch College, except in laboratory areas (see Laboratory Chemical Hygiene Plan).

This plan specifically addresses employees in the following departments who come into contact with hazardous materials in the course of their daily work assignments:

- Department of Buildings and Grounds
- Custodial Services (Cleaning)
- Department of Reproduction Services (duplicating)
- Department of Fine and Performing Arts
- Department of Public Safety

Department of Natural Sciences is covered under the College Chemical Hygiene Plan for Laboratories.

5.0 RESPONSIBILITIES

The Baruch Hazard Communication/Right to Know Plan establishes the following responsibilities:

5.1 ENVIRONMENTAL HEALTH AND SAFETY

- Write, review and revise the written Hazard Communication/ Right to Know Plan
- Provide training to departments/personnel on Plan requirements
- Assist departments with implementation of the Plan
- Obtain and review MSDSs for those chemicals with which personnel can be exposed to
- Monitor, as needed, personnel exposure to hazardous chemicals
- Carry out all requirements as stated in the NYS Right to Know Laws

5.2 DEPARTMENT HEADS

- Ensure the guidelines in this plan are adhered to by staff
- Maintain MSDSs for all hazardous chemicals used in the department
- Ensure MSDSs are readily accessible to staff as needed
- Complete chemical inventory forms annually and maintain in departmental office (**send copy to EHS**)
- Ensure chemicals are properly labeled
- Ensure personnel attend Hazard Communication/Right to Know training
-

5.3 EMPLOYEES

- Follow all procedures outlined in this plan
- Used assigned Personal Protective Equipment when needed
- Attend Hazard Communication/Right To Know training

6.0 PLAN LOCATION

The Hazard Communication/Right to Know plan can be found in the following locations:

- EHS office (Room A1108A)
- Buildings and Grounds Office (Room D110)
- Human Resources Office (Room D-202)
- Office of Public Safety (Room A-102)

7.0 NYS RIGHT TO KNOW LAW

The New York State Right to Know Law requires specific guidelines for implementation of this plan. They charge both employers and employees with certain rights and responsibilities.

Employer (Baruch College – CUNY) is required to:

- Develop a written plan outlining all aspects of the program
- Designate a coordinator of the program (Environmental Health and Safety Officer)
- Ensure all hazardous materials are labeled accordingly
- Ensure an inventory of all hazardous substances is maintained
- Ensure Material Safety Data Sheets are obtained for each hazardous substance, and are available to employees that request them
- Provide information and training on hazardous substances annually
- Provide Personal Protective Equipment as needed
- Records of exposure are kept for 40 years; training records are kept for at least 5 years
- Post RTK poster designated locations
- Ensure that employees cannot be discriminated against for exercising their rights under this law

8.0 HAZARDOUS CHEMICALS

A chemical is considered hazardous if it is listed in the known references as being a hazardous material. In a mixture, if one of the constituents is a known hazard with greater than 1% concentration, the mixture is considered hazardous. However, if the presence of the hazardous material in trace amounts causes the mixture to be hazardous, the chemical is considered a hazardous material.

The definition of hazardous chemicals as given by OSHA is "any chemical which is a physical hazard or health hazard."

They can have physical hazards such as:

- Flammable
- Combustible
- Reactive
- Explosive
- Oxidizer
- Air or water sensitive

- Compressed gas

Or health hazards such as:

- Carcinogenic
- Toxic (to all organs in the body including skin)
- Highly toxic
- Reproductive toxic (to either male or female reproductive organs or fetal development)
- Allergic and sensitizer
- Irritant (mucous membranes)
- Corrosive

in human, animal or biological testing.

A listing of those chemicals rated as hazardous which exhibit one or more of the above mentioned properties, refer to the following lists and publications:

- 29 CFR 1910 Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA) (see Appendix F)
- Threshold Limit Values and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists (ACGIH)
- National Toxicology Program Annual Report on Carcinogens (NTP)
- International Agency for Research on Cancer (IARC) Monographs

9.0 EXPOSURE AND MEDICAL MONITORING

9.1 EXPOSURE MONITORING

EHS is available to monitor and evaluate exposure to chemicals in the workplace. This may be done to review the success of a hazard control program, or to evaluate levels of exposures prior to designing a program. EHS will also monitor, on request, if personnel think they are being exposed to a particular chemical they are working with.

a Exposure Monitoring Methods

Monitoring can be accomplished through the use of direct reading instruments such as a portable photoionization detector or other direct reading instruments. These instruments give an instant but sometimes nonspecific reading of exposure to one or many chemicals.

The OSHA approved method for monitoring involves placing a badge on an individual, or by drawing air through tubes or filters filled with a designated media for a particular chemical over the course of a specified time period by using a personal sampling pump. After sampling is completed, collected media is sent for processing and analysis by an independent environmental laboratory.

b Exposure Evaluation

The findings will be interpreted according to current accepted industrial hygiene practices. Levels will be compared with the OSHA Permissible Exposure Levels Table (Appendix E) to determine if the individual is being exposed at the Action Level (AL) or the Permissible Exposure Level (PEL).

In the event that exposure levels require additional exposure prevention and control, EHS will determine the appropriate modifications to the work activity or chemicals used, the institution of engineering controls to reduce exposure, or the assignment of personal protective equipment to prevent exposure to the user.

9.2 MEDICAL MONITORING

Medical monitoring is required under specific scenarios. In absence of a College Medical Office for staff, personnel will be referred to an Occupational Health Clinic at an institution that provides this service, or their own private physician.

a. Scenarios Requiring Medical Monitoring

The following scenarios may require medical monitoring:

- **Symptoms Develop** – Personnel develop signs or symptoms associated with a hazardous chemical exposure for chemicals used or being used in the workplace.
- **Exposure Monitoring** – Exposure monitoring reveals an exposure level routinely above the action level (or in the absence of an action level, the PEL) for an OSHA regulated substance for which there are exposure monitoring levels and/or medical surveillance requirements. Medical surveillance shall be established for the affected employee as prescribed by the particular standard.
- **Hazardous Event** – An event occurs in the work area such as a spill, leak, explosion or other occurrence resulting in the likelihood of a hazardous exposure, the affected individual shall be provided an opportunity for a medical consultation.

b. Accident Reports

Accident reports/compensation claims are kept on record with Human Resources. A copy of the report should be sent to the EHS office for evaluation and action, if needed.

Public Safety also logs in reports of accidents and injuries of employees as an incident by the responding officer. A copy of this is to be sent to the EHS office for review and follow up as well.

When possible, EHS will follow up with the employee either individually or through departmental training.

10.0 EXPOSURE CONTROL

The purpose of this Plan is to minimize or eliminate occupational exposure to hazardous chemicals. Exposure prevention and control methods are generalized into three categories:

10.1 SOURCE CONTROLS

Source controls are administrative measures which reduce and/or prevent exposures to a hazardous chemical. Substitution, minimization, and/or alteration of the chemical(s) or procedure(s) are examples of a source control. With chemical substitution, exposure to a high hazard chemical is controlled by utilizing a less hazardous chemical.

10.2 PATHWAY CONTROLS

Pathway controls are engineering controls (e.g., ventilation system and chemical hoods) which minimize an exposure to a chemical hazard in the work area of the employee.

10.3 RECEIVER CONTROLS

Receiver controls are personal protective equipment (e.g., respirators, gloves, etc.) utilized to minimize an exposure to a chemical hazard for each individual employee. Personal protective equipment is further discussed in Section 11.0.

When examining exposure control methods, source controls should first be utilized, then pathway controls, and finally receiver controls as per OSHA mandate.

11.0 MATERIAL SAFETY DATA SHEETS

Material Safety Data Sheets (MSDSs) provide basic information about the safety and health hazards posed by a chemical and precautions to take when using it (**see Appendix B for an example of a MSDS**). The OSHA Hazard Communication Standard requires that:

- MSDSs are maintained for every hazardous chemical used and stored at Baruch.
- MSDSs are readily accessible to all personnel working with, or who may come into contact with, hazardous chemicals, and that MSDSs are visible to emergency response personnel.
- All personnel are responsible for knowing where the MSDSs are kept.
- As new chemicals are ordered, the MSDSs must be obtained from the manufacturer.

11.1 OBTAINING MSDSs

All departments should receive a MSDS from the chemical manufacturer at the time of purchase. If the MSDS is not provided with the chemical shipment, the department must obtain the MSDS within a reasonable amount of time. Requests for MSDSs by the department must be documented, either by a copy of a letter or email (see Appendix C for an example MSDS Request letter). For additional assistance with obtaining a MSDS contact EHS.

Contractors **ARE REQUIRED** to provide MSDS's for all hazardous materials they will be using in the course of their work.

11.2 MSDS GENERAL INFORMATION

MSDSs are printed documents concerning product hazards, which are prepared and distributed with chemicals by chemical manufacturers and distributors. MSDSs are written in English and have generally a standardized format consisting of the following sections:

11.2.1 Section I – Contact and General Product Information

This section contains basic contact information for the chemical manufacturer and the chemical including the following:

- Manufacturer's name
- Address
- Telephone number for information
- Emergency telephone number
- Date prepared
- Chemical name and CAS number

The information telephone number is provided to allow the user to obtain additional information about the substance. The emergency telephone number is intended for use by emergency response and medical personnel.

11.2.2 Section II – Hazard Ingredients / Identity Information

This section lists the hazardous components of the material, not all components of the material. The following information is listed for each hazardous component found in the material:

- Specific chemical identity
- Relevant common names
- OSHA Permissible Exposure Limit (PEL)
- ACGIH Threshold Limit Value (TLV)
- Other recommended limits
- Percentage of the material the component accounts for (if applicable)

The PELs, TLVs, and “other recommended limits” list the maximum safe exposure concentrations for the hazardous component in question. Most of these guidelines are based on an 8-hour workday.

11.2.3 Section III – Physical / Chemical Characteristics

This section details the physical and chemical characteristics of the material as a whole, including:

- Boiling point
- Vapor pressure in mm Hg.
- Vapor density
- Specific Gravity
- Melting Point
- Evaporation Rate
- Solubility in Water
- Appearance and odor

11.2.4 Section IV – Fire and Explosion Data

This section contains the following:

- Flash point (and method used to determine it)
- Lower explosive limit (LEL)
- Upper explosive limit (UEL)
- Proper extinguishing media
- Special fire fighting procedures
- Any unusual fire and explosion hazards

11.2.5 Section V – Reactivity Data

This section provides the following reactivity information:

- Whether the material is stable or not
- Conditions to avoid to maintain the material’s stability
- Information about potential incompatibilities with other materials
- Any hazardous decomposition products or byproducts that may be generated
- If the material may undergo hazardous polymerization
- Conditions to avoid to prevent hazardous polymerization

11.2.6 Section VI – Health Hazard Data

This section provides the following health hazard information:

- Routes of entry (inhalation, skin contact, ingestion, etc.)
- Acute and chronic health hazards
- Carcinogenicity data
- Signs and symptoms of exposure to the material
- Medical conditions generally aggravated by exposure
- Emergency and first aid procedures

11.2.7 Section VII – Precautions for Safe Handling and Use

This section provides the following handling information:

- Steps to be taken in case the material is released or spilled
- Waste disposal methods
- Precautions to be taken in handling and storing
- Any other applicable precautions

11.2.8 Section VIII – Control Measures

This section provides the following information regarding appropriate equipment and practices to control exposures to the material:

- Appropriate type of personal protective equipment (e.g., respiratory protection, protective gloves, eye protection, and other protective equipment)
- Types of ventilation
- Recommended work/hygienic practices

11.3 DEPARTMENT REVIEW OF MSDSs

Each department is responsible for reviewing all incoming MSDSs for new and significant health and safety information. Any new information must be provided to the employees so that appropriate safety measures can be taken (PPE, engineering controls, etc.). Upon request, EHS will provide assistance in the evaluation of MSDSs, the determination of the hazards and what types of procedures need to be followed for protection. If deficiencies exist or additional information is needed concerning MSDSs, the chemical manufacturer or supplier should be contacted to obtain the necessary information.

11.4 HAZARD DETERMINATION

EHS relies upon the hazard determination and MSDS supplied by the chemical manufacturer or distributor to determine the hazards of all chemicals bought, used or stored at Baruch. EHS will use this information and any other resources in helping to determine hazards.

11.5 LOCATION OF MSDS'S

MSDS's are located in several locations:

- EHS Office
- Buildings and Grounds Office
- Shops
- Custodial storage room
- Custodial closets
- Offices of departments where hazardous materials are used

12.0 CHEMICAL INVENTORY

All locations (e.g., laboratories, service areas, mechanical rooms, print shops, etc.) which store and/or use hazardous chemicals are required to maintain a complete inventory of all hazardous chemicals and report annually on the types, quantities and locations where these chemicals are being stored and used at the College. On an annual basis, the Chemical Inventory must be submitted to EHS. EHS will compile all the chemical inventories for the College, review them, and submit the annual reports to the appropriate State and local government agencies as part of the Community Right-to-Know Program.

12.1 CHEMICAL INVENTORY

Baruch is waiting for EHS - CUNY Central to install an on-line chemical inventory program (Chemtracker) that departments with significant chemical inventories will utilize. Small departments can submit a pen and paper inventory to EHS for input into the chemical inventory system. This system is expected to be installed and running by the end of 2008. The inventory system will include the following information:

- name of chemical
- building
- room number
- department
- is an MSDS available

13.0 LABELING

All chemical containers must be properly labeled. Original containers from chemical manufacturers are required under the Federal OSHA Hazard Communication Standard to provide the following information:

- Common name of chemical
- Chemical manufacturer's name, address and emergency telephone number
- Health and safety hazard warnings (e.g., flammable, corrosive, etc.)

The manufacturer's label must not be removed or defaced. If a product is transferred from one container to another, the new container must be labeled with either an extra copy of the original manufacturer's label or with labels that have the identity all information listed above (such as from a 55 gallon drum to a 5 gallon container).

If the chemical is transferred from a labeled container into a process container, that is, if the person performing the transfer will use the transferred material within the same workday, the container does not need to be labeled as described above.

Each department will be required to appoint a person to manage the labeling system or contact EHS for assistance with this. Employees who have question about the labeling system should contact their immediate supervisor. See Appendix A for an example of a chemical label. If needed, EHS will help with the generation of labels for containers with transferred chemicals.

14.0 PERSONAL PROTECTIVE EQUIPMENT

Choose Personal Protective Equipment (PPE) based on the types of chemicals handled, the degree of protection required, and the areas of the body which may become contaminated. All clothing and equipment must at a minimum meet standards set by the American National Standards Institute (ANSI). Every effort must be made to evaluate the effectiveness of equipment and make improvements where possible. Special consideration must be given to purchasing appropriate PPE and other safety equipment when extremely hazardous substances are involved (see EHS for samples or recommendations of needed PPE)

14.1 EYE AND FACE PROTECTION

Eye protection acts as a protection not only from chemicals, but also from physical hazards. All eyewear must meet ANSI's "Practice for Occupational and Educational Eye and Face Protection," Z87.1 – 1989. Prior to use, personnel will verify that the equipment has been approved for the particular procedure (e.g. ANSI certified for chemical splashes but not for impact).

14.1.1 Eye and Face Protection Selection

Ordinary prescription glasses are not adequate to protect eyes from injury. With the use of contact lenses, particular attention needs to be paid when working with materials that may be an eye hazard. Eye protection is required for all contact lens users.

The following table should be consulted in choosing protective eyewear:

| Condition Requiring Eye / Face Protection | Type of Eye / Face Protection Required |
|---|--|
| Handling of aqueous solutions, biologicals, mild corrosives, etc. | Standard safety glasses with side shields and brow guard |
| Handling strong corrosives, solvents, large volume of chemicals, etc. | Chemical resistant goggles, indirect vents |
| Working with glassware under reduced or elevated pressure. Glassware in high temperature operations | Impact protection glasses/goggles |
| Potential for flying objects, particles or chemical splash | Face shields for impact and splash |
| Vacuum system, reactions with potential for explosions | Both goggles and face shield |
| Lasers, ultraviolet, infrared or other light sources, glass blowing, welding, torch use | Specialized eye protection |

14.2 GLOVES

Gloves must be worn at all times whenever there is a chance for hand contact with chemicals or other hazardous materials. At a minimum, disposable latex or nitrile (for those with a latex allergy) gloves should be worn. The addition of heavier weight gloves may be required in the event chemicals involved are easily absorbed through the skin or are acute or chronic toxins. There are a variety of gloves, both disposable and non-disposable, to resist degradation and permeation (chemical breakthrough) depending on the material they are made of and their thickness.

14.2.1 Glove Selection and Glove Chart

- Personnel with latex allergies must be provided latex-free gloves (such as vinyl or nitrile rubber).
- Personnel should consult the glove manufacturer's permeation and resistance charts to ensure the glove provides adequate protection for the required duration of use and chemical hazards.

| GLOVE TYPE | RECOMMENDED USE | GOOD FOR SPECIFIC CHEMICALS |
|--------------------------|---|--|
| Natural Rubber (Latex) | Good for dilute acids and bases Biologicals, buffers, water based dyes Not good for chlorinated hydrocarbons, aromatic hydrocarbons, diethyl ether | Solutions of acetic, hydrochloric, sulfuric acids; ammonium hydroxide; sodium hydroxide; ethanol; isopropanol; methanol, formaldehyde, acetone |
| Butyl Rubber | Good for ketones, esters and acids Not good for aliphatic, aromatic, chlorinated hydrocarbons, gasoline and petroleum products | Glycol ethers, acetone, ethanol |
| Nitrile Rubber | Good for a wide variety of solvents and petroleum products Not good for aromatic hydrocarbons, chlorinated hydrocarbons, acetone | Oils, greases, aliphatic hydrocarbons, DMSO, alcohols, acid solutions, formalin |
| Neoprene | Good for acids and bases, peroxides, petroleum products, hydrocarbons, alcohols, phenols Not good for halogenated and aromatic hydrocarbons | Ethanol, isopropanol, acetic acid, acetone, acetonitrile, DMSO, formalin, hydrochloric acid, ethidium bromide |
| Polyvinyl Chloride (PVC) | Good for acids and bases; limited for organics, amines, and peroxides; Not good for most organics | Solutions of acids and bases, alcohols |
| Polyvinyl Alcohol (PVA) | Good for aromatics, ketones and chlorinated solvents; Not good for water-based solutions- PVA coating is water soluble | Benzene, toluene, chlorobenzene, chloroform, methylene chloride, carbon tetrachloride, hexane, carbon disulfide |
| Viton™ | Exceptional for chlorinated and aromatic hydrocarbons | Benzene, toluene, chloroform, PCB's |
| Silver shield™ / 4H™ | Laminated gloves with exceptional resistance for a large variety of chemicals, poor dexterity. | Aromatics, esters, chlorines and ketones |

14.2.2 Glove Use Requirements

- Personnel must inspect gloves prior to use. No glove completely resists degradation or permeation and must be replaced periodically, depending on how often it is used, for what concentration of chemical and for how long.
- Re-usable gloves must be washed before removal except those that are permeable to water.
- Two disposable gloves on each hand should be worn depending on the material being handled, and to prevent contamination when removing the top glove layer
- If the need for gloves arises when walking through public spaces, the individual must glove one hand only. The other hand should be gloveless and used to open doors or press elevator buttons.

14.3 CLOTHING

The choice of protective clothing depends upon the degree of protection required. Protective and appropriate clothing is required when a potential exists for chemical splashes, fire, extreme heat or cold, excessive moisture and radiation. Protective clothing which should be readily available to personnel includes:

- Lab coats
- Lab aprons
- Shoe covers
- Coveralls
- Sleeve covers

Personnel must be instructed to consider the following characteristics in protective clothing selection and purchase:

- Ability to resist fire, heat and chemicals used
- Chemical impermeability when needed
- Comfort, permitting easy execution of tasks when worn
- Ease of cleaning (unless disposable)
- Ability to be removed during an emergency or chemical splash (fasteners instead of buttons)

14.4 RESPIRATORS

Under no circumstance is respiratory protective equipment to be used by any person at Baruch unless approved by EHS in accordance with **Baruch's written Respiratory Protection Program.**

The Respiratory Protection Program requires training, assignment, fit testing and medical exam in accordance with the OSHA Respiratory Standard (Title 29, Code of Federal Regulations, Part 1910.134). All respiratory protection must be chosen in conjunction with EHS since there are strict legal requirements as to the use and distribution of these devices.

Respirators must be worn when performing non-routine operations such as chemical waste disposal, or spill response, or those procedures that pose a respiratory hazard (working with extremely toxic materials). These procedures will require the use of a negative pressure half face, full face or self contained breathing apparatus.

Respirators are available to those individuals who are routinely responsible for conducting the following activities:

- Chemical Hood repair
- Filter changes on HVAC systems
- Painting and working with paint products
- Welding
- Grinding, sanding and cutting
- Maintaining and treating water systems
- Lead paint exposure

15.0 NON-ROUTINE TASKS

Some employees are periodically required to perform non-routine tasks. The department is responsible for identifying and informing employees of the hazards associated with the substances involved **prior** to the performance of non-routine work.

Employees will be given the following information:

- Specific chemical hazard and information
- Protective safety measures the employee should take, such as wearing gloves or protective clothing
- Emergency procedures

As requested, EHS will provide assistance in evaluating the hazards and determining the appropriate precautions for non-routine tasks. EHS will also provide information and material safety data sheets if needed.

16.0 CONTRACTORS

Contractors working at Baruch must comply with all OSHA standards and requirements, where applicable. The Hazard Communication Standard requires that contractors be:

- Given access to MSDSs
- Informed of any precautionary measures to take during normal operating conditions and in foreseeable emergencies
- Informed of the labeling requirements and MSDS requirements

Similarly, contractors MUST inform and provide departments with a chemical inventory and MSDSs for all materials that will be used during the course of work at Baruch College. Contractors must also provide information regarding the location of all chemicals used and storage.

17.0 HAZARDOUS WASTE DISPOSAL

Please refer to the Baruch Hazardous Waste Disposal Manual for types of waste and what to do about disposal

18.0 SPILL REMEDIATION AND EMERGENCY RESPONSE

Please refer to the Baruch Spill Remediation and Emergency Response Manual for cleaning up a chemical spill and other emergencies

19.0 TRAINING

Non-laboratory personnel who handle, or who may come into contact with hazardous chemicals in the course of their work, must attend annually Chemical Hazard Communication/Right to Know training. EHS provides this training annually to affected departments.

Chemical Hazard Communication /Right to Know training will focus on the following topics (but not limited to):

- Review of the OSHA Hazard Communication Standard, 1910.1200
- Review NYS Right to Know Laws
- Review of the written Baruch Hazard Communication/Right To Know Plan
- Types of chemical and physical hazards in the work area
- Labeling
- Material Safety Data Sheets
- Exposure prevention (environmental and medical monitoring)
- Personal protective equipment
- Other hazards (asbestos, lead)
- Waste disposal (chemical, universal and e-waste)
- Spill Clean-up and emergency response
- Other topics as deemed necessary

20.0 RECORDKEEPING

EHS maintains records on file for the following:

- Exposure monitoring is kept on record in the EHS office for the duration of 40 years (as per OSHA requirements)
- Accidents and exposure incidents are kept on record in the EHS office for the duration of 40 years
- Chemical Spill incidents
- Training records are kept in the EHS office for at least 3 years
- Hazardous waste removals (manifests) and other material disposals are kept on record in the EHS office for at least 5 years

21.0 DEFINITIONS

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Chemical means any element, chemical compound or mixture of elements and/or compounds.

Chemical manufacturer means an employer with a workplace where chemical(s) are produced for use or distribution.

Chemical name means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.

Combustible liquid means any liquid having a flashpoint at or above 100 deg. F (37.8 deg. C), but below 200 deg. F (93.3 deg. C), except any mixture having components with flashpoints of 200 deg. F (93.3 deg. C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

Commercial account means an arrangement whereby a retail distributor sells hazardous chemicals to an employer, generally in large quantities over time and/or at costs that are below the regular retail price.

Common name means any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

Compressed gas means:

1. A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 deg. F (21.1 deg. C); or
2. A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 deg. F (54.4 deg. C) regardless of the pressure at 70 deg. F (21.1 deg. C); or
3. A liquid having a vapor pressure exceeding 40 psi at 100 deg. F (37.8 deg. C) as determined by ASTM D-323-72.

Container means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

Designated representative means any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section. A

recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.

Distributor means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

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

Employer means a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

Explosive means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

Exposure or exposed means 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 route of entry (e.g. inhalation, ingestion, skin contact or absorption.)

Flammable means a chemical that falls into one of the following categories:

1. **Aerosol, flammable** means an aerosol that, when tested by the method described in 16 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening;
2. **Gas, flammable** means:
 - a. A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent by volume or less; or
 - b. A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit;
3. **Liquid, flammable** means any liquid having a flashpoint below 100 deg. F (37.8 deg. C), except any mixture having components with flashpoints of 100 deg. F (37.8 deg. C) or higher, the total of which make up 99 percent or more of the total volume of the mixture.
4. **Solid, flammable** means a solid, other than a blasting agent or explosive as defined in 1910.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.

Flashpoint means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested as follows:

1. Tagliabue Closed Tester (See American National Standard Method of Test for Flash Point by Tag Closed Tester, Z11.24-1979 (ASTM D 56-79)) for liquids with a viscosity of less than 45 Saybolt Universal Seconds (SUS) at 100 deg. F (37.8 deg. C), that do not contain suspended solids and do not have a tendency to form a surface film under test; or
2. Pensky-Martens Closed Tester (see American National Standard Method of Test for Flash Point by Pensky-Martens Closed Tester, Z11.7-1979 (ASTM D 93-79)) for liquids with a viscosity equal to or greater than 45 SUS at 100 deg. F (37.8 deg. C), or that contain suspended solids, or that have a tendency to form a surface film under test; or
3. Setaflash Closed Tester (see American National Standard Method of Test for Flash Point by Setaflash Closed Tester (ASTM D 3278-78).
4. Organic peroxides, which undergo auto-accelerating thermal decomposition, are excluded from any of the flashpoint determination methods specified above.

Foreseeable emergency means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

Hazardous chemical means any chemical which is a physical hazard or a health hazard.

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

Health hazard means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. Appendix A provides further definitions and explanations of the scope of health hazards covered by this section, and Appendix B describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for purposes of this standard.

Identity means any chemical or common name which is indicated on the material safety data sheet (MSDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the MSDS.

Immediate use means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Label means any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

Material safety data sheet (MSDS) means written or printed material concerning a hazardous chemical which is prepared in accordance with paragraph (g) of this section.

Mixture means any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.

Organic peroxide means an organic compound that contains the bivalent -O-O-structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Oxidizer means a chemical other than a blasting agent or explosive as defined in 1910.109(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

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

Produce means to manufacture, process, formulate, blend, extract, generate, emit, or repackage.

Pyrophoric means a chemical that will ignite spontaneously in air at a temperature of 130 deg. F (54.4 deg. C) or below.

Responsible party means someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

Specific chemical identity means the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

Trade secret means any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it. Appendix D sets out the criteria to be used in evaluating trade secrets.

Unstable (reactive) means a chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

Use means to package, handle, react, emit, extract, generate as a byproduct, or transfer.

Water-reactive means a chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

Work area means a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

Workplace means an establishment, job site, or project, at one geographical location containing one or more work areas.

22.0. REFERENCES

OSHA Regulations 29CFR 1910.1200, Subpart Z, Toxic and Hazardous Substances, Hazard Communication Standard

OSHA 29CFR 1910.1000, Limits for Air Contaminants - Table Z-1, Z-2, Z-3

12 NYCRR, Part 820, New York State Right-To-Know Law and NYS Labor Law, Article 28, Sections 875 - 883