RANDOLPH COMMUNITY COLLEGE
629 Industrial Park Avenue
Asheboro, North Carolina

Asheboro Campus

Emergency Services Training Center

Archdale Center

HAZARD COMMUNICATION PROGRAM

November 2022

A. Purpose

Randolph Community College is firmly committed to providing each of its employees a safe and healthy work environment. The purpose of this procedure is to protect our employees as well as the public from injuries or illnesses that may result from exposure to hazardous chemicals or substances within our workplace.

Major components of the hazard communication standard include an assessment of chemical hazards in your workplace, safety data sheets (SDS), container labeling, development of a written program, and employee information and training.

This standard**,** otherwise known as the "Employee's Right to Know," is OSHA's Hazard Communication Standard (29 CFR 1910.1200 for General Industry and 29 CFR 1926.59 for Construction), which in 2012 was updated to comply with requirements for a Globally Harmonized System (GHS).

The standards arose out of a fundamental belief that employees have a right to know the hazards posed by substances in the workplace, and a responsibility to take necessary precautions to avoid injuries relating to those substances.

B. Responsibilities

1. The designated **Hazard Communication Coordinator,** is the Director of Safety and Emergency Preparedness of Randolph Community College. The specific responsibilities of the Hazard Communication Coordinator include:

    a. Maintaining an up-to-date Hazard Communication Program.
    b. Ensuring that Randolph Community College has a copy of a Safety Data Sheet (SDS) for each chemical listed.
    c. Ensuring that an adequate supply of hazard warning labels are maintained.
    d. Ensuring that general hazard communication training is provided to all applicable employees.
    e. Maintaining training records for employees who have completed Hazard Communication training and keeping them up to date.
    f. Keeping a digital master copy of the all SDSs on file.

2. Each **Program Director or Associate Dean** has the following responsibility:

    a. Ensuring that materials are properly labeled within their work areas.
    b. Ensuring that SDS's are obtained with any new materials received.
    c. Ensuring that each employee is trained on any non-routine chemicals that may be used in their work areas.

3. Each **employee** is responsible for learning and following the requirements developed under this program.

C. Access to the Written Program

This written Hazard Communication Program is available to employees, their designated representatives, or representatives for Occupational Safety and Health (OSHA). The designated location of this plan is listed in Appendix A for review and copying.

D. Hazard Determination and Inventory

1. Chemical manufacturers and importers are required to determine the hazards of the chemicals they produce or import. Hazard classification under the new, updated standard provides specific criteria to address health and physical hazards as well as classification of chemical mixtures.

E. Safety Data Sheets (SDS)

1. An SDS containing the information required by the Hazard Communication Standard will be kept for each substance listed in Randolph Community College's chemical database. The SDS will be the most current one supplied by the chemical manufacturer, importer, or distributor.

2. The location of the master file of all SDS's will be located online in our SDS database. The Safety Data Sheets must remain readily accessible to all employees or persons working with the chemicals.

3. Each department chemical inventory representative is responsible for obtaining an SDS for any new chemical that is not in the Randolph Community College chemical database. With each purchase of a new chemical not listed in our inventory, the college department ordering the chemical will request an SDS be sent with the order.

4. The department will forward a copy of the SDS to the Director of Safety and Emergency Preparedness for inclusion in the online chemical database.

F. Labeling

1. No hazardous chemicals will be accepted for use at Randolph Community College, or shipped to any outside location, unless labeled with the original manufacturers label. Original labels are required to be kept on the original packaging for the life of the product.

2. All in-house (secondary) containers of hazardous chemicals will be labeled as required per OSHA 1910.1200(f)(6)(ii): "**Product identifier** and words, pictures, symbols, or 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 the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical." The RCC secondary container label shall include at least the following:

    - Product identifyer (must match SDS)
    - Hazard Warning Statement
    - PPE (if required)
    - First aid statement

3. No label is to be defaced or removed when a material is received or in use. If a label becomes unreadable or material is poured into a different container, the person using the material is responsible for labeling the container with an in-house warning label.

G. Employee Information and Training

1. Prior to initial task assignment, all employees at Randolph Community College, including temporary employees, working with or potentially exposed to hazardous chemicals, will be appropriately informed and trained concerning the potential hazards to which they may be exposed.

2. All employees at Randolph Community College will be informed of the details of the Hazard Communication Program, including an explanation of the labeling system and the SDS's, and how employees can use the appropriate hazard information. The Hazard Communication Coordinator is responsible for the overall coordination of the training program.

3. Employees will be provided with training when new hazardous chemicals are introduced and added to the chemical inventory, and before non-routine tasks are to be performed that could involve exposure to hazardous chemicals.

4. The extent of information transmitted to employees during training sessions will be dictated by the degree of hazard presented by the chemicals. The basic elements of the training program will include:
    a. Type and location of hazardous chemicals used at our facilities.
    b. Methods of detecting the presence or release of hazardous chemicals.
    c. Personal protective equipment and methods of protecting against chemical exposure.
    d. An explanation of an SDS.
    e. Review of the Hazard Communication Standard (29 CFR 1910.1200).

5. Training will be recorded on an appropriate training record, and those training records will be maintained by the Director of Safety and Emergency Preparedness.

H. Non-Routine Work

1. Occasionally employees will be asked to perform non-routine work which can be defined as work not normally performed by an employee during the normal course of job duties. Examples of non-routine work could be, but are not limited to:
   a. Start-up and phase-in of new equipment.
   b. Using chemical substances in a manner different from normal and customary usage, such as a one time lab experiment or on a trial basis.

2. The following procedures will be used when employees perform non-routine work:
   a. The appropriate supervisor will determine the need for non-routine work and the hazard associated with the work.
   b. Prior to performing a hazardous non-routine task, a special training session will be conducted, usually between the supervisor and the employee.

3. In addition to the general employee information and training provided, the training will include thoroughly reading the SDS, reviewing any necessary personal protective equipment, and emphasizing any other precautions that may be needed to reduce or avoid exposure.

4. Employees share in the responsibility by ensuring their immediate supervisor knows that non-routine work will be performed. Employees should contact their immediate supervisor with questions concerning non-routine work.

I. Contractor Policy

1. Any hazardous substance brought to Randolph Community College by an outside contractor must be coordinated with the Hazard Communication Coordinator. The contractor and Randolph Community College's Hazard Communication Coordinator shall supply one another with a list of the hazardous chemicals and the corresponding SDS's for the materials to which any employee will be potentially exposed in the course of their work.

2. Outside contractors must be provided with all necessary information concerning the potential hazards of the substances to which they may be exposed and minimize their potential exposure.

SDS Terms and Definitions

Acute Hazard - symptoms develop immediately or within days after exposure. Sometimes associated with brief and/or high concentrations of exposure.

Asphyxiant - a vapor or gas that can cause unconsciousness or death by suffocation (lack of oxygen). Simple asphyxiants act by displacing the oxygen available in the air so the body cannot take in enough oxygen (i.e. carbon dioxide, nitrogen, helium). Chemical asphyxiants act by interferring with the body's use of oxygen even though adequate oygen is present (carbon monoxide, cyanide).

Boiling Point (BP) - temperature at which a liquid changes to a gas. Solvents with low boiling points will volatilize readily. Examples include benzene, methyl alcohol, mercury and toluene.

Carcinogen - substance that causes cancer or suspected of causing cancer in humans.

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

Chronic Hazard - symptoms or effects that develop slowly over a long period of time and with repeated contact.

Combustible - ability of a solid, liquid, or gas to ignite and burn. Chemicals with a flash point 100^0 F or above are considered combustible.

Corrosive - a chemical that attacks and destroys whatever it comes in contact with and can cause permanent damage or destroy living tissue. Vapors from corrosives can damage nose, mouth and throat.

Evaporation Rate - how long a liquid takes to change into a vapor (evaporate). Butyl acetate has a relative evaporation rate of 1. A chemical with a higher number evaporates faster; one with a lower number evaporates slower.

Exposure or Exposed - an employee is subjected in the course of employment to a chemical that is a physical or heath 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).

Flammability - ability of a solid, liquid, or gas to ignite and produce a flame. If a chemical has a flash point below 100^0 F, it is considered a flammable.

Flash Point - lowest temperature at which a chemical's vapors are concentrated enough to ignite. The lower the flash point, the more dangerous the material. Examples: gasoline's flash point is -45 degrees F. Diesel fuel #2 has a flash point of +125 degreesF.

Hazardous Chemical - 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).

Health Hazard - includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which damage the lungs, skin, eyes, or mucous membranes.

Identity - means any chemical or common name which is indicated on the SDS for the chemical. The identity used shall permit cross-references to be made among the Hazardous Chemical Inventory List, the label,and the SDS.

Irritant - a chemical that causes temporary inflammation (redness, swelling, irritation).

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

Safety Data Sheet (SDS) - means written or printed material concerning a hazardous chemical which is prepared in accordance with 29CFR1910.1200(g).

Melting Point - temperature at which a solid changes to a liquid.

pH - means used to express the degree of acidity or alkalinity of a solution. A pH of 7 is neutral. Numbers increasing from 8 to 14 indicate greater alkalinity (bases/alkalies). Numbers decreasing 6 to 0 indicate greater acidity (acids).

Physical Hazard - means a chemical which is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Sensitizer - a material that causes little or no reaction at first, but which can cause an “allergic” reaction on repeated exposure. Skin sensitization is the most common form, but respiratory sensitization is also known to occur from isocyanates and epoxy resins.

Signal Word – There are only two signal words in GHS: "**Danger**" or "**Warning**". They are used to emphasize chemical hazards and indicate the relative level of severity of the hazard. "Danger" indicates more severe hazards.

Specific Gravity - density (or heaviness) of a chemical compared to water which has a relative value of 1. Insoluble materials with specific gravity of less than 1.0 will float in (or on) water. Insoluble materials with specific gravity greater than 1.0 will sink in water. Most (but no all) flammable liquids have specific gravity less than 1.0 and, if not soluble, will float on water - an important consideration for fire suppression.

Vapor Density - density (or heaviness) of a vapor compared to air which has the density of 1. If the chemical’s vapor density is higher than 1, the vapor is heavier than air and will concentrate in low places (along or under floors, in sumps, sewers, manholes, in trenches and ditches). Examples include propane, hydrogen sulfide, ethane, butane, chlorine, sulfur dioxide. If the chemical’s vapor density is less than 1, the vapor will rise in the air and dissipate (unless confined). Examples include acetylene, methane, hydrogen.

Vapor Pressure - measures the volatility of a liquid (how quickly a substance forms a vapor at ordinary temperatures); that is, how easily a liquid evaporates. The higher the number, the faster the liquid evaporates.

Globally Harmonized System (GHS) Pictograms

Health Hazard

- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity

Flame

- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides

Exclamation Mark

- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity (harmful)
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)

Gas Cylinder

- Gases Under Pressure

Corrosion

- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals

Exploding Bomb

- Explosives
- Self-Reactives
- Organic Peroxides

Flame Over Circle

- Oxidizers

Environment (Non-Mandatory)

- Aquatic Toxicity

Skull and Crossbones

- Acute Toxicity (fatal or toxic)

Appendix A

Randolph Community College Compliance Information

OSHA Standard Compliance	Director of Safety and Emergency Preparedness
Designation of Hazard Communication Coordinator	Matthew Needham, Director of Safety & Emergency Preparedness and in his absence, Cindi Goodwin, Director of Facilities Operations
Location of Hazard Communication Plan	Director of Safety and Emergency Preparedness Office Facilities Office RCC Website
Location of Safety Data Sheet Master File or locations of Departmental Safety Data Sheets	Master File – Online Database Department Files by Location
Location of Training Records	Director of Safety & Emergency Preparedness Office
Location of 29 CFR 1910.1200 Standard	Located in the office of the Director of Safety & Emergency Preparedness Also on the web at: https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200