

RANDOLPH COMMUNITY COLLEGE
629 Industrial Park Avenue
Asheboro, North Carolina

Asheboro Campus

Emergency Services Training Center

Archdale Center

HAZARD COMMUNICATION PROGRAM

Reviewed May 2011

Hazard Communication

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.

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 a Hazardous Chemicals Inventory List exists for Randolph Community College and is up to date.
 - c. Ensuring that Randolph Community College has a copy of a Material Safety Data Sheet (MSDS) for each chemical listed.
 - d. Ensuring that an adequate supply of hazard warning labels are maintained.
 - e. Ensuring that general hazard communication training is provided to all applicable employees.
 - f. Maintaining training records for employees who have completed Hazard Communication training and keeping them up to date.
 - g. Keeping a master copy of the Hazard Communication program and all MSDSs on file.

2. Each **Program Dean, Director or Division Chair** has the following responsibility:
 - a. Ensuring that materials are properly labeled within their work areas.
 - b. Ensuring that MSDS'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

All or any part of this written Hazard Communication Program is available to employees, their designated representatives, the Assistant Secretary of Labor for Occupational Safety and Health (OSHA) and the Director of the National Institute for Occupational Safety and Health (NIOSH). The designated location of this plan is listed in Attachment 1 for review and copying.

D. Hazard Determination and Inventory

1. The initial hazard determination of chemicals is performed by manufacturers or importers. Every hazardous substance known to be present in the workplace at Randolph Community College will be listed on the Hazardous Chemicals Inventory List. This list will serve as an index to the MSDS files.
2. The identity of the substance appearing on the Hazardous Chemicals Inventory List will be the same name that appears on the manufacturer's label, in-house label, and the MSDS for that substance.

E. Material Safety Data Sheets (MSDS)

1. An MSDS containing the information required by the Hazard Communication Standard will be kept for each substance listed on Randolph Community College's Hazardous Chemicals Inventory List. The MSDS will be the most current one supplied by the chemical manufacturer, importer, or distributor.
2. The location of the master file of all MSDS's will be located in the facilities office. A copy will also be kept in the area/department the chemicals are being used in. The Material 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 MSDS for any new chemical that is not on the Randolph Community College Hazardous Chemicals Inventory List and/or for which Randolph Community College does not have an MSDS. Within two (2) weeks of receipt of the chemical, the representative will contact the supplier by fax or letter and request an MSDS be sent. A sample letter is attached as Attachment 2.
4. The department will forward a copy of the MSDS to the Hazard Communication Coordinator for inclusion on the Hazardous Chemicals Inventory List and placement in the master MSDS files. The department will also include the new chemical on the Department's Hazardous Chemicals Inventory List.
5. Terms that are often referred to on MSDSs may be found in Attachment 3.

F. Labeling

1. No hazardous chemicals will be accepted for use at Randolph Community College, or shipped to any outside location, unless labeled with at least the following information:
 - a. Identity of the hazardous chemical(s).
 - b. Appropriate hazard warnings (physical and/or health hazards).
 - c. Name & address of the chemical manufacturer, importer or other responsible party.

2. All in-house containers of hazardous chemicals will be labeled with at least the following information:
 - a. Identity of the hazardous chemical(s) (trade & common name).
 - b. Appropriate hazard warnings (physical and/or health hazards).
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. If the warning labels are not available in the work area, they may be obtained by calling the Hazard Communication Coordinator.

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 MSDS'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 MSDS.
 - e. The text of the OSHA Hazard Communication Standard (29 CFR 1910.1200).
 - f. This written Program, including our Hazardous Chemicals Inventory List, procedures for chemical labeling, handling non-routine tasks and our contractor policy.
5. Training will be recorded on an appropriate training record and those training records will be maintained by the Hazard Communication Coordinator. The location of the training records is listed in Attachment 1. A copy may also be maintained within the Department.

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. Confined space entry work.
 - b. Start-up and phase-in of new equipment.
 - c. 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 MSDS, reviewing any necessary personal protective equipment, and emphasizing any other precautions that may be needed to reduce or avoid exposure. Special work permits may be required for some non-routine work, such as confined space entry.
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 MSDS's for the materials to which all employees 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 appropriate protective measures required to minimize their exposure.

Randolph Community College Specific Information
Attachment 1

Issues Required by the OSHA Standard	College Information for Compliance
Designation of Hazard Communication Coordinator	Robert A. Graves , Director of Safety & Emergency Preparedness and in his absence, Cindi Goodwin, Director of Facility Services.
Location of Hazard Communication Plan (must be accessible to employees)	Safety Office Facilities Office RCC Website/Employee publications Located with each MSDS book
Location of Material Safety Data Sheet Master File or locations of Departmental Material Safety Data Sheets	Master File-Facilities Office Department Files by Location
Location of Training Records	Office of Safety & Emergency Preparedness
Location of 29 CFR 1910.1450 Standard (must be accessible to employees)	Located with each MSDS book and web address: http://osha.gov/pls/oshaweb/owadis.show_document?p_table=STANDARDS&p_id=10106

Randolph Community College
Request for an MSDS
Attachment 2

Date

Chemical Supplier's Company Name
Address
City, State Zip Code

Re: Material Safety Data Sheet

To Whom It May Concern:

In accordance with the Federal and North Carolina Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), we are requesting that you provide a Material Safety Data Sheet on the following chemical(s) we purchase from your firm:

(List chemicals)

This request has been documented per OSHA requirements, and your response should be within thirty (30) days of receipt.

Please address your response to:

Your Name
(your college name here)
(mailing address)
(city, state zip)

Your assistance is appreciated.

Sincerely,

Your Name

Randolph Community College
MSDS Terms and Definitions
Attachment 3

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 interfering with the body's use of oxygen even though adequate oxygen 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 - a substance that causes cancer or is suspected of causing cancer in humans.

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

Chronic Hazard - symptoms or effects 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 100⁰ 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 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).

Flammability - ability of a solid, liquid, or gas to ignite and produce a flame. If a chemical has a flash point below 100⁰ 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 MSDS for the chemical. The identity used shall permit cross-references to be made among the Hazardous Chemical Inventory List, the label, and the MSDS.

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.

Material Safety Data Sheet (MSDS) - 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.

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 not 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.

Upper and Lower Flammable Limits (UFL & LFL) - The highest and lowest concentrations (% of substance in air) that will produce a flash of fire when an ignition source (heat, arc or flame) is present. Between the UFL and LFL, the substance is likely to ignite. Above the UFL, the mixture is too "rich" to burn. Below the LFL, the mixture is too "lean" to burn. The UEL & LEL (upper and lower explosive limits) provide the minimum and maximum concentration of a the chemical's vapor in the air required for an explosion to occur.