

Nash Community College Hazard Communication
CFR29 1910.1200
Updated 2/2013 to include GHS requirements

Policy

Nash Community College (NCC) 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.

Procedures:

A. Responsibilities

1. The designated **Hazard Communication Coordinator**, appointed by the President of NCC, is listed in Attachment 1. The specific responsibilities of the Hazard Communication Coordinator, appointed by the President of NCC include:
 - a. Maintaining an up-to-date Hazard Communication Program.
 - b. Ensuring that a Hazardous Chemicals Inventory List exists for NCC and is up to date.
 - c. Ensuring that NCC has a copy of a Safety Data Sheet (SDS) 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 SDSs on file.
2. Each **College Dean** has the following responsibility:
 - a. Ensuring that materials are properly labeled within their work areas.
 - b. Ensuring that SDSs 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.

B. 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.

Hazard Classification and Inventory

1. The initial hazard classification of chemicals is performed by manufacturers or importers. Every hazardous substance known to be present in the workplace at NCC will be listed on the Hazardous Chemicals Inventory List. This list will serve as an index to the SDS files.
2. The product identifier 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 SDS for that substance.

C. Safety Data Sheets (SDS)







1. A SDS containing the information required by the Hazard Communication Standard will be kept for each substance listed on NCC's Hazardous Chemicals Inventory List. The SDS will be the most current one supplied by the chemical manufacturer, importer, or distributor and shall include the following sections as of 6/1/2015:
 - (i) Section 1, Identification;
 - (ii) Section 2, Hazard(s) identification;
 - (iii) Section 3, Composition/information on ingredients;
 - (iv) Section 4, First-aid measures;
 - (v) Section 5, Fire-fighting measures;
 - (vi) Section 6, Accidental release measures;
 - (vii) Section 7, Handling and storage;
 - (viii) Section 8, Exposure controls/personal protection;
 - (ix) Section 9, Physical and chemical properties;
 - (x) Section 10, Stability and reactivity;
 - (xi) Section 11, Toxicological information.
 - (xii) Section 12, Ecological information;
 - (xiii) Section 13, Disposal considerations;
 - (xiv) Section 14, Transport information;
 - (xv) Section 15, Regulatory information; and
 - (xvi) Section 16, Other information, including date of preparation or last revision.
2. The location of the master file of all SDSs is listed in Attachment 1. The Safety Data Sheets will be readily accessible to employees.

3. Each department is responsible for obtaining a SDS for any new chemical that is not on the NCC Hazardous Chemicals Inventory List and/or for which NCC does not have a SDS. Within two (2) weeks of receipt of the chemical, the department will contact the supplier by fax or letter and request a SDS be sent. A sample letter is attached as Attachment 2.
4. The department will forward a copy of the SDS to the Hazard Communication Coordinator for inclusion on the Hazardous Chemicals Inventory List and placement in the master SDS files.

D. Labeling

1. No hazardous chemicals will be accepted for use at NCC, or shipped to any outside location, unless labeled with at least the following information:
 - b. Product Identifier of the hazardous chemical(s).
 - c. Signal word- Danger (more severe) or Warning (less severe) (after 12/1/2015)
 - d. Appropriate hazard statements (physical and/or health hazards).
 - e. Pictograms (after 12/1/2015)

HCS Pictograms and Hazards

<p style="text-align: center;">Health Hazard</p>  <ul style="list-style-type: none"> ▪ Carcinogen ▪ Mutagenicity ▪ Reproductive Toxicity ▪ Respiratory Sensitizer ▪ Target Organ Toxicity ▪ Aspiration Toxicity 	<p style="text-align: center;">Flame</p>  <ul style="list-style-type: none"> ▪ Flammables ▪ Pyrophorics ▪ Self-Heating ▪ Emits Flammable Gas ▪ Self-Reactives ▪ Organic Peroxides 	<p style="text-align: center;">Exclamation Mark</p>  <ul style="list-style-type: none"> ▪ Irritant (skin and eye) ▪ Skin Sensitizer ▪ Acute Toxicity ▪ Narcotic Effects ▪ Respiratory Tract Irritant ▪ Hazardous to Ozone Layer (Non-Mandatory)
<p style="text-align: center;">Gas Cylinder</p>  <ul style="list-style-type: none"> ▪ Gases Under Pressure 	<p style="text-align: center;">Corrosion</p>  <ul style="list-style-type: none"> ▪ Skin Corrosion/Burns ▪ Eye Damage ▪ Corrosive to Metals 	<p style="text-align: center;">Explosing Bomb</p>  <ul style="list-style-type: none"> ▪ Explosives ▪ Self-Reactives ▪ Organic Peroxides

Flame Over Circle	Environment	Skull and Crossbones
 <ul style="list-style-type: none"> <li data-bbox="240 411 380 432">▪ Oxidizers 	<p data-bbox="708 275 915 296">(Non-Mandatory)</p>  <ul style="list-style-type: none"> <li data-bbox="656 436 867 457">▪ Aquatic Toxicity 	 <ul style="list-style-type: none"> <li data-bbox="1081 411 1370 464">▪ Acute Toxicity (fatal or toxic)

- f. Precautionary Statements (after 12/1/2015)
- g. Name, address, and telephone number 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: **Product identifier and words, pictures, symbols, or combination thereof**, which provide employees with the specific information regarding the physical and health hazards of the hazardous chemical. The College may use signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and conveys the information required by paragraph 1910.1200(f)(6). The College shall ensure the written materials are readily accessible to the employees in their work area throughout each work shift.
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 substance 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.

B. Employee Information and Training

1. Prior to initial task assignment, all employees at NCC, 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 NCC will be informed of the details of the Hazard Communication Program and the Globally Harmonized System (GHS), including an explanation of the labeling system, pictograms, the SDSs, 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. The physical, health, simple asphyxiation, combustible dust and pyrophoric gas hazards, as well as hazards not otherwise classified, of the chemicals in the work area.
 - d. Personal protective equipment and methods of protecting against chemical exposure.
 - e. An explanation of a 16 section SDS.
 - f. An explanation of the 8 GHS hazard category pictograms.
 - g. The text of the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) including Globally Harmonized System (GHS) changes and the details of 1910.1200 appendices A and B.
 - h. This written Program, including our Hazardous Chemicals Inventory List, procedures for chemical labeling, handling non-routine tasks and our contractor policy.
- C.** Training will be recorded on an appropriate training record and those training records will be maintained by the Hazard Communication Coordinator. All affected employees will be trained in the GHS changes to the HCS by December 1, 2013. The location of the training records is listed in Attachment 1. A copy may also be maintained within the Department.
- D. 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 SDS, 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.

E. Contractor Policy

1. Any hazardous substance brought to NCC by an outside contractor must be coordinated with the Hazard Communication Coordinator. The contractor and NCC's Hazard Communication Coordinator shall supply one another with a list of the hazardous chemicals and the corresponding SDSs 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.

NCC

**College Specific Information
Attachment 1**

Issues Required by the OSHA Standard	College Information for Compliance
Designation of Hazard Communication Coordinator	Wayne Lamm
Location of Hazard Communication Plan (must be accessible to employees)	Faculty/Staff Intranet
Location of Safety Data Sheet Master File or locations of Departmental Safety Data Sheets	Hard copy in each department, and a Master set at the Switchboard
Location of Training Records	Safety and Security Office
Location of 29 CFR 1910.1200 Standard (must be accessible to employees)	Safety and Security Office

NCC

**Request for a SDS
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 Safety Data Sheet on the following chemical(s) we purchase from Nash firm:

(List chemicals)

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

Please address Nash response to:

Nash Name
NCC
(mailing address)
(city, state zip)

Nash assistance is appreciated.

Sincerely,

Nash Name
Hazard Communication Coordinator

GHS/HazComm/SDS Terms and Definitions
Terms marked with * are new for 2013 or updated
Attachment 3

Several key changes have been made to update the definitions section. This final rule provides more detailed physical and health hazard criteria. However, this information has now been moved from this section into Appendices A and B.

Additionally, in order to be consistent with the GHS, OSHA has added, deleted, and modified a number of the definitions. The following changes were made to definitions in the HCS 2012:

Added the following definitions: Classification, Hazard category, Hazard class, Hazard not otherwise classified, Hazard statement, Label elements, Pictogram, Precautionary statement, Product identifier, Pyrophoric Gas, Safety data sheet, Signal word, Simple asphyxiant, and Substance.

Deleted the following definitions: Combustible liquid, Compressed gas, Explosive, Flammable, Flashpoint, Hazard warning, Identity, Material safety data sheet, Organic peroxide, Oxidizer, Pyrophoric, Unstable (reactive), and Water-reactive.

Revised the following definitions: Chemical, Chemical name, Hazardous chemical, Health hazard, Label, Mixture, Physical hazard, and Trade secret.

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 any substance, or mixture of substances.

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

***Classification-** to identify the relevant data regarding the hazards of a chemical; review and decide whether the chemical will be classified as hazardous according to the definition of hazardous chemical. In addition, classification for health and physical hazards includes the determination of the degree of hazard, where appropriate, by comparing the data with the criteria for health and physical hazards.

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.

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 degrees F.

***Hazard category-** the division of criteria within each hazard class, e.g., oral acute toxicity and flammable liquids include four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.

***Hazard class-** the nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.

***Hazard not otherwise classified (HNOC)-** an adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in this section.

***Hazard statement-** means a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.

***Hazardous chemical-** means any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.

***Health hazard-** means a chemical which is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard. The criteria for determining whether a chemical is classified as a health hazard are detailed in Appendix A to §1910.1200 -- Health Hazard Criteria.

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

***Label** - an appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

***Label elements** - the specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

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** – a chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas. See Appendix B to §1910.1200 -- Physical Hazard Criteria.

***Pictogram-** a composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.

***Precautionary statement** - a phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.

***Product identifier-** the name or number used for a hazardous chemical on a label or

in the SDS. It provides a unique means by which the user can identify the chemical. The product identifier used shall permit cross-references to be made among the list of hazardous chemicals required in the written hazard communication program, the label and the SDS.

Pyrophoric gas-means a chemical in a gaseous state that will ignite spontaneously in air at a temperature of 130 degrees F (54.4 degrees C) or below.

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

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** - means a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.

***Simple asphyxiant**- means a substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those who are exposed, leading to unconsciousness and death.

***Substance** - chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

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.