

# **Northern Maine Community College Hazard Communications Policy**

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# Northern Maine Community College Hazard Communications Policy

## Introduction

In compliance with OSHA 29CFR1910.1200 and Maine State Laws and Regulations, the following hazard communications policy and accompanying procedures have been established. Records of employee training and inadequacies in the compliance of this policy will be kept by the Director of Finance. All employees and departments are included within the policy and shall follow the procedures set forth by this policy.

An inventory of all known toxic and hazardous substances used by college personnel will be kept in electronic format along with an electronic version of the appropriate manufacturer supplied Safety Data Sheet. This list must be verified and/or updated each time an item is purchased for use by any college employee. This process is outlined in the *Safety Data Sheets (SDS)* section. Additionally, each area and/or department shall conduct a self-audit of their workplace/work area at least annually in the month of January. This process is defined in the *Workplace Auditing* section. This inventory list and the corresponding SDS will be maintained for a minimum of thirty years from the date of last use of the item.

## Hazardous Non-routine Tasks

Periodically, employees are required to perform hazardous non-routine tasks. Prior to starting work on such projects, each assigned employee will be given information by their supervisor about the hazards to which they may be exposed to during the work activity. This information will include chemical hazards, personal protective equipment necessary to perform the task(s), measures the college has taken to reduce the risk of hazard exposure (ie: administrative or engineered controls) and emergency procedures associated with the task(s) performed.

## Safety Data Sheets (SDS)

The employee responsible for the procurement of any item for use by, or distribution to, college personnel, herein referred to as purchaser, shall be responsible in ensuring the appropriate SDS accompanies the order. The purchaser shall also be responsible for ensuring the SDS is delivered to the Physical Plant & Technology Office Receptionist for the verification and/or updating of the Electronic Safety System (ESS). The SDS must be acquired by the purchaser each time an item is encumbered, regardless of the last time of purchase or whether the college has already obtained an SDS for the item. Chemicals that have been personally purchased or donated cannot be accepted on campus. The process flow outlined must be adhered to for any item purchased for use by, or distribution to, Northern Maine Community College personnel.

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### *Process flow for all items purchased:*

1. The purchaser requests the SDS from the vendor during the time of purchase.
2. The purchaser will submit the SDS and the location(s) of intended use of the item to the Physical Plant & Technology Office Receptionist, in hand, at the time of receipt.
3. The Physical Plant & Technology Office Receptionist will email a confirmation of receipt of the SDS to the purchaser.
4. The SDS will be checked against the ESS and added or updated as necessary.

***Failure to comply with the process outlined will result in the loss of purchasing privileges and disciplinary action as set forth the in the employee's bargaining unit contract. Each compliance inadequacy will require retraining as set forth by this policy.***

### **Workplace Auditing**

Each work area/department will be responsible for conducting an inventory audit by October 30 each year and submit exception report to the Safety Committee for review and (as noted in #3 below) to the Physical Plant and Technology Office. This audit will ensure that all materials requiring an SDS are in the area's inventory and are part of the comprehensive list for the campus maintained in the ESS. The person(s) responsible for the completion of the workplace audit will be the area supervisor and/or department chair.

### *Process flow for work area audits:*

1. The responsible party for the area generates a report of the most current chemical list using the ESS for the work area.
2. Inventory is verified against the report. All chemicals in physical inventory that are not part of the report will be put into an exception report.
3. Exception report submitted, in hand, to the Physical Plant & Technology Office Receptionist. This report will include the manufacturer information, product name and part number, and approximate date of item's first use in the area. See the last page of this policy for the copy of the *Verification/Exception Report*.
4. The Physical Plant & Technology Office Receptionist will email a receipt of the exception/verification report to the person(s) responsible for the work area.
5. The purchaser of the item(s) included in the exception report will be responsible for obtaining the manufacturer's SDS and submit it to the Physical Plant & Technology Office Receptionist as described in the *Safety Data Sheets (SDS)* section.

***Failure to comply with the process outlined will result in the loss of purchasing privileges and disciplinary action as set forth the in the employee's bargaining unit contract. Each compliance inadequacy will require retraining as set forth by this policy.***

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**Labels**

The purchaser will verify that all containers received for use are clearly labeled to indicate

- a) The identity of the substance (which must match the corresponding SDS);
- b) The signal Word (Danger – Caution);
- c) The name and address and phone number of the manufacturer, importer or responsible party from whom additional information can be obtained in needed.
- d) Pictogram (beginning Dec 2013, transitional compliance, until fully required in 2015)
- e) First Aid statement
- f) Precautionary measures
- g) Supplemental information

The end user shall also ensure that all secondary containers are labeled with either an extra copy of the original manufacturer's label or the proper, standardized secondary label the college has adopted with all the above list information on each secondary label.

Following are the pictogram hazard symbols which should be used on labels.

Flame	Flame over circle	Exploding bomb
		
Corrosion	Gas cylinder	Skull and crossbones
		
Exclamation mark	Environment	Health Hazard
		

All of the symbols, aside from the environment symbol, are part of the standard symbols used in the UN recommendations on the transport of Dangerous Goods model regulations.

**Employee Training and Information**

Employees shall be provided with effective information and training on hazardous substances in their work area at the time of their initial assignment and whenever a new physical or health hazard is introduced to their work area. The area supervisor will be responsible for informing the

employee(s) of the personal protective equipment required to use the chemical, what emergency procedures are to be used in case of leaks or spills and proper cleanup and/or disposal methods.

All employees are required training upon initial assignment and annually thereafter in the following:

- A. An overview of the requirements of OSHA 29CFR1910.1200;
- B. Potentially hazardous material present in their work operations;
- C. Availability and location of the policy and procedures;
- D. Physical and health effects of hazardous substances;
- E. Methods and observation techniques used to determine the presence of release of toxic substances in the work area;
- F. How to use the hazardous substances in the safest possible manner, including the use of safe work practices and personal protective equipment;
- G. Steps the college has taken to reduce or prevent exposure to hazardous substances;
- H. How to read labels and review SDS to obtain appropriate hazard information;
- I. The use of the Electronic Safety System (ESS) and availability of electronic SDS;
- J. How to provide hazard information to emergency personnel (ie: fire, police, emergency medicine, etc.) if necessary; and
- K. Processes for items purchased and workplace audits as outlined in this policy.

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Training records shall include the date of training, instructor name and signature, covered, and the name and signature of each employee in attendance. The records will be maintained in the Director of Finance's office along with the Electronic Safety System Training database.

### **Contractors and Non-employees**

It is the responsibility of the Director of Physical Plant & Technology to make available and disseminate to contractors the following information:

- A. Toxic and/or hazardous substances to which they may be exposed while on the job site;  
and
- B. Precautions college personnel may take to lessen the possibility of exposure by usage of appropriate protective measures.

When contractors or service agents anticipate bringing chemicals to the NMCC workplace, it is their responsibility to provide the appropriate SDS for each item as the process outlines in the *Safety Data Sheets (SDS)* section as though the contractor were the purchaser as outlined. Work shall not begin unless the chemical information has been received from the contractor and assigned to the appropriate work area.



## Appendix B Definitions

Item = any product purchased by an employee for use and/or distribution on the Northern Maine Community College campus.

Purchaser = the person(s) responsible for the actual order of an item, or items, and conducts the purchase process from the supplier.

ESS = Electronic Safety System, the electronic-based/paperless hazard communication system.

Aerosols = any non-refillable receptacles made of metal, glass or plastics and containing a gas compressed, liquefied or dissolved under pressure, with or without a liquid, paste or powder, and fitted with a release device allowing the contents to be ejected as solid or liquid particles in suspension in a gas, as a foam, paste or powder or in a liquid state or in a gaseous state. Aerosol includes aerosol dispensers.

Alloy = a metallic material, homogeneous to the naked eye, consisting of two or more elements so combined that they cannot be readily separated by mechanical means. Alloys are considered to be mixtures for the purpose of classification under the GHS.

Aspiration = the entry of a liquid or solid chemical product into the trachea and lower respiratory system directly through the oral or nasal cavity, or indirectly from vomiting;

ASTM = the "American Society of Testing and Materials".

BCF = "bioconcentration factor".

BOD/COD = "biochemical oxygen demand/chemical oxygen demand".

CA = "competent authority".

Carcinogen = a chemical substance or a mixture of chemical substances which induce cancer or increase its incidence.

CAS = "Chemical Abstract Service".

CBI = "confidential business information".

Chemical identity = a name that will uniquely identify a chemical. This can be a name that is in accordance with the nomenclature systems of the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS), or a technical name.

Competent authority = any national body(ies) or authority(ies) designated or otherwise recognized as such in connection with the Globally Harmonized System of Classification and Labelling of



Chemicals (GHS).

Compressed gas = a gas which when packaged under pressure is entirely gaseous at  $-50^{\circ}\text{C}$ ; including all gases with a critical temperature  $\leq -50^{\circ}\text{C}$ .

Contact sensitizer = a substance that will induce an allergic response following skin contact. The definition for "contact sensitizer" is equivalent to "skin sensitizer".

Corrosive to metal = a substance or a mixture which by chemical action will materially damage, or even destroy, metals.

Criteria = the technical definition for the physical, health and environmental hazards;

Critical temperature = the temperature above which a pure gas cannot be liquefied, regardless of the degree of compression.

Dermal Corrosion: see skin corrosion;

Dermal irritation: see skin irritation.

Dissolved gas = a gas which when packaged under pressure is dissolved in a liquid phase solvent.

$\text{EC}_{50}$  = the effective concentration of a substance that causes 50% of the maximum response.

EC Number or (ECN<sup>o</sup>) is a reference number used by the European Communities to identify dangerous substances, in particular those registered under EINECS.

ECOSOC = the "Economic and Social Council of the United Nations".

EINECS = "European Inventory of Existing Commercial Chemical Substances".

End Point = physical, health and environmental hazards;

$\text{ErC}_{50}$  =  $\text{EC}_{50}$  in terms of reduction of growth rate.

EU = "European Union".

Explosive article = an article containing one or more explosive substances.

Explosive substance = a solid or liquid substance (or mixture of substances) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings. Pyrotechnic substances are included even when

they do not emit gases.

Eye irritation = the production of changes in the eye following the application of test substance to the front surface of the eye, which are fully reversible within 21 days of application.

Flammable gas = a gas having a flammable range with air at 20°C and a standard pressure of 101.3 kPa.

Flammable liquid = a liquid having a flash point of not more than 93°C.

Flammable solid = a solid which is readily combustible, or may cause or contribute to fire through friction.

Flash point = the lowest temperature (corrected to a standard pressure of 101.3 kPa) at which the application of an ignition source causes the vapors of a liquid to ignite under specified test conditions.

Gas = a substance which (i) at 50 °C has a vapor pressure greater than 300 kPa; or (ii) is completely gaseous at 20 °C at a standard pressure of 101.3 kPa.

GESAMP = "the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection of IMO/FAO/UNESCO/WMO/WHO/IAEA/UN/UNEP."

GHS = "the Globally Harmonized System of Classification and # Labelling of Chemicals".

Hazard category = the division of criteria within each hazard class, e.g., oral acute toxicity includes five hazard categories and flammable liquids includes 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, health or environmental hazard, e.g., flammable solid carcinogen, oral acute toxicity.

Hazard statement = a statement assigned to a hazard class and category that describes the nature of the hazards of a hazardous product, including, where appropriate, the degree of hazard;

IARC = the "International Agency for the Research on Cancer".

ILO = the "International Labor Organization".

IMO = the "International Maritime Organization".

Initial boiling point = the temperature of a liquid at which its vapor pressure is equal to the

standard pressure (101.3kPa), i.e., the first gas bubble appears.

IOMC = the "Inter-organization Program on the Sound Management of Chemicals".

IPCS = the "International Program on Chemical Safety".

ISO = International Standards Organization.

IUPAC = the "International Union of Pure and Applied Chemistry".

Label = an appropriate group of written, printed or graphic information elements concerning a hazardous product, selected as relevant to the target sector(s), that is affixed to, printed on, or attached to the immediate container of a hazardous product, or to the outside packaging of a hazardous product.

Label element = one type of information that has been harmonized for use in a label, e.g., pictogram, signal word.

LC<sub>50</sub> (50% lethal concentration) = the concentration of a chemical in air or of a chemical in water which causes the death of 50% (one-half) of a group of test animals.

LD<sub>50</sub> = the amount of a chemical, given all at once, which causes the death of 50% (one half) of a group of test animals.

L(E)C<sub>50</sub> = LC<sub>50</sub> or EC<sub>50</sub>.

Liquefied gas = a gas which when packaged under pressure, is partially liquid at temperatures above -50°C. A distinction is made between.

- (i) High pressure liquefied gas: a gas with a critical temperature between -50°C and +65°C; and
- (ii) Low pressure liquefied gas: a gas with a critical temperature above +65°C.

Liquid = a substance or mixture which at 50°C has a vapor pressure of not more than 300kPa (3bar), which is not completely gaseous at 20 °C and at a standard pressure of 101.3kPa, and which has a melting point or initial melting point of 20°C or less at a standard pressure of 101.3 kPa. A viscous substance or mixture for which a specific melting point cannot be determined shall be subjected to the ASTM D 4359-90 test; or to the test for determining fluidity (penetrometer test) prescribed in section 2.3.4 of Annex A of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

MARPOL = the "International Convention for the Prevention of Pollution from Ships".

Mixture = a mixture or a solution composed of two or more substances in which they do not react.

SDS = "Material Safety Data Sheet" and in this document is used interchangeably with Safety Data Sheet (SDS).

Mutagen = an agent giving rise to an increased occurrence of mutations in populations of cells and /or organisms.

Mutation = a permanent change in the amount or structure of the genetic material in a cell;

NGO = "non-governmental organization".

NOEC = the "no observed effect concentration".

OECD = "The Organization for Economic Cooperation and Development".

Organic peroxide = a liquid or solid organic substance which contains the bivalent -O-O- structure and may be considered a derivative of hydrogen peroxide, where one or both of the hydrogen atoms have been replaced by organic radicals. The term also includes organic peroxide formulation (mixtures).

Oxidizing gas = any gas which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does.

Oxidizing liquid = a liquid which, while in itself not necessarily combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other material.

Oxidizing solid = a solid which, while in itself not necessarily combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other material.

QSAR = "quantitative structure-activity relationships".

Pictogram = a graphical 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.

Precautionary statement = a phrase (and/or pictogram) that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous product, or improper storage or handling of a hazardous product. Product identifier = the name or number used for a hazardous product on a label or in the SDS. It provides a unique = by which the product user can identify the substance or mixture within the particular use setting (e.g. transport, consumer or workplace).

Pyrophoric liquid = a liquid which, even in small quantities, is liable to ignite within five minutes after coming into contact with air.

Pyrophoric solid = a solid which, even in small quantities, is liable to ignite within five minutes after coming into contact with air.

Pyrotechnic article = an article containing one or more pyrotechnic substances;

Pyrotechnic substance = a substance or mixture of substances designed to produce an effect by heat, light, sound, gas or smoke or a combination of these as the result of non-detonative, self-sustaining exothermic (heat-related) chemical reactions.

Readily combustible solid = powdered, granular, or pasty substance or mixture which is dangerous if it can be easily ignited by brief contact with an ignition source, such as a burning match, and if the flame spreads rapidly.

Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria = the latest revised edition of the United Nations publication bearing this title, and any published amendment thereto.

Recommendations on the Transport of Dangerous Goods, Model Regulations = the latest revised edition of the United Nations publication bearing this title, and any published amendment thereto.

Refrigerated liquefied gas = a gas which when packaged is made partially liquid because of its low temperature.

Respiratory sensitizer = a substance that induces hypersensitivity of the airways following inhalation of the substance.

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail [Annex 1 to Appendix B (Uniform Rules concerning the Contract for International Carriage of Goods by Rail) (CIM) of COTIF (Convention concerning international carriage by rail)], as amended.

SAR = "Structure Activity Relationship".

SDS = "Safety Data Sheet" and in this document is used interchangeably with Material Safety Data Sheet (MSDS).

Self-Accelerating Decomposition Temperature (SADT) = the lowest temperature at which self-accelerating decomposition may occur with substance as packaged.

Self-heating substance = a solid or liquid substance, other than a pyrophoric substance, which, by reaction with air and without energy supply, is liable to self-heat; this substance differs from a pyrophoric substance in that it will ignite only when in large amounts (kilograms) and after long periods of time (hours or days).

Self-reactive substance = a thermally unstable liquid or solid substance liable to undergo a strongly exothermic decomposition even without participation of oxygen (air). This definition excludes substances or mixtures classified under the GHS as explosive, organic peroxides or as oxidizing.

Serious eye damage = the production of tissue damage in the eye, or serious physical decay of vision, following application of a test substance to the front surface of the eye, which is not fully reversible within 21 days of application.

Signal word = a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The GHS uses 'Danger' and 'Warning' as signal words.

Skin corrosion = the production of irreversible damage to the skin following the application of a test substance for up to 4 hours.

Skin irritation = the production of reversible damage to the skin following the application of a test substance for up to 4 hours.

Skin sensitizer = a substance that will induce an allergic response following skin contact. The definition for "skin sensitizer" is equivalent to "contact sensitizer".

Solid = a substance or mixture which does not meet the definitions of a liquid or gas.

SPR = "Structure Property Relationship".

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.

Substance which, in contact with water, emits flammable gases = a solid or liquid substance or mixture which, by interaction with water, is liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.

Supplemental label element = any additional non-harmonized type of information supplied on the container of a hazardous product that is not required or specified under the GHS. In some cases this information may be required by other competent authorities or it may be additional information provided at the discretion of the manufacturer/distributor.

Symbol = a graphical element intended to succinctly convey information.

Technical name = a name that is generally used in commerce, regulations and codes to identify a

substance or mixture, other than the IUPAC or CAS name, and that is recognized by the scientific community. Examples of technical names include those used for complex mixtures (e.g., petroleum fractions or natural products), pesticides (e.g., ISO or ANSI systems), dyestuffs (Color Index system) and minerals.

UNCED = the "United Nations Conference on Environment and Development".

UNCETDG/GHS = the "United Nations Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals".

UNITAR = the "United Nations Institute for Training and Research";

UNSCEGHS = the "United Nations Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals".

UNSCETDG = the "United Nations Sub-Committee of Experts on the Transport of Dangerous Goods".

## Appendix C

### NMCC Procedures for Handling SDS and Product Information Sheets

To ensure that the College is continually updating its inventory of SDS sheets and product information is distributed to the users of materials in accordance with OSHA requirements, the following procedures will be implemented as of October 2005.

1. Two copies of the master list of SDS sheets will be maintained by the college at the following locations:
  - The Library, and
  - The Purchasing Office.
  - IT Office (online version)
2. All current SDS information is readily available and stored electronically in the SDS system.
3. When ordering materials, the purchase requisition will designate that the materials are new and that a SDS sheet is required from the manufacturer. The purchasing agent will communicate with the manufacturer to assure that new SDS sheets are received with the materials.
4. When the materials are received, **the materials will not be used until an appropriate SDS sheets are obtained and reviewed by OSHA standards.** The purchasing agent will assure that all users have the required SDS sheets and copies are also included in the two master books and sent to IT as noted above.
5. In accordance with OSHA requirements, all materials that are not currently being used will be marked as inactive in the electronic SDS system.
6. Semi-annually, an individual or individuals designated by the Director of Finance and the Director of Physical Plant and Technology will perform the following:
  - a. Physically inspect materials at various campus locations and compare to the SDS book at the location and the SDS master list maintained at the two locations named above.
  - b. If an up-to-date SDS sheet is not in the location, use of the materials shall be suspended until the specific SDS sheet is obtained.
  - c. Report to the Directors named above on the findings of their inspection.
7. NMCC will not accept donations of chemicals from outside sources.