

STANDARD PRACTICE INSTRUCTION

DATE IMPLEMENTED: 04 April 2019

SUBJECT: Hazard Communication

REGULATORY STANDARD: OSHA - 29 CFR 1910.1200, 2012 GHS Update

BASIS: About 32 million workers are potentially exposed to one or more chemical hazards on a daily basis. There are an estimated 575,000 existing chemical products, and hundreds of new ones being introduced annually. This poses a serious problem for exposed workers and their employer. The OSHA Hazard Communication Standard establishes uniform requirements to make sure that the hazards of all chemicals imported into, produced, or used in U.S. workplaces are evaluated, and that this hazard information is transmitted to all affected workers.

GENERAL: Nowland Associates, Inc. will ensure that the hazards of all chemicals used within our company are evaluated, and that information concerning their hazards is transmitted to all employees. This standard practice instruction is intended to address comprehensively the issues of; evaluating the potential hazards of chemicals, communicating information concerning these hazards, and establishing appropriate protective measures for employees.

RESPONSIBILITY: The company Safety Officer is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The Safety Officer will develop written detailed instructions covering each of the basic elements in this program, and is the sole person authorized to amend these instructions. This company has expressly authorized the Safety Officer to halt any operation of the company where there is danger of serious personal injury.

Contents of the Hazard Communication Program

1. **Written Program.**
2. **Training.**
3. **Labeling.**
4. **Safety Data Sheets.**
5. **Non-Company Employees.**
6. **Trade Secrets.**
7. **Unlabeled Process Piping.**
8. **Non Routine Tasks.**
9. **Definitions.**

Nowland Associates, Inc. Hazard Communication Program

1. Written Program. This standard practice instruction will be maintained in accordance with 29 CFR 1910.1200 and updated as required. Where no update is required this document will be reviewed annually. Effective implementation of this program requires support from all levels of management within this company. This written program will be communicated to all personnel that are affected by it. It encompasses the total workplace, regardless of number of workers employed or the number of work shifts. It is designed to establish clear goals, and objectives. Nowland Associates, Inc. shall:

1.1 Annually review and revise this written hazard communication program based on company operational requirements or, as required by the OSHA Hazard Communication Standard.

1.2 Provide a program for proper labeling of containers, describe other needed forms of warning, and detail the use and purpose of Safety Data Sheets (SDS). An SDS will be obtained for all hazardous chemicals. Describe how employee information and training requirements will be met, to include the following:

1.2.1 Generate a list of the hazardous chemicals known to be present in the workplace using an identity that is referenced from the appropriate SDS. This list will be maintained and available to all employees; and located as a minimum in the office and each jobsite. **NOTE: Maryland law requires company information (address, phone number, contact) be maintained on the chemical inventory.**

1.2.2 Detail the method Nowland Associates, Inc. will use to inform employees of the hazards of non-routine tasks. Immediate supervisors of affected employees will oversee this requirement. The Safety Officer may be consulted to provide any task hazard analysis assistance required.

1.2.3 The hazards associated with chemicals contained in process or facility piping routed through their work area. Immediate supervisors of affected employees will oversee this requirement. The Safety Officer may be consulted to provide any hazard analysis assistance required. Any unlabeled pipes in their work areas must be immediately reported for labeling.

1.2.4 The methods Nowland Associates, Inc. will use to inform employee(s) of any precautionary measures that need to be taken to protect employees during normal operating conditions and in foreseeable emergencies. Immediate supervisors of affected employees will oversee this requirement. The Safety Officer may be consulted to provide any task hazard analysis assistance required.

1.2.5 Nowland Associates, Inc. shall make the written hazard communication program available to all employees, during each work shift.

2. Training Program. Nowland Associates, Inc. shall provide employees with information and training on hazardous chemicals in their work area at the time of their initial assignment, annually, and whenever a new chemical is introduced into their work area that could present a potential hazard.

2.1 Information. Employees shall be informed of:

2.1.1 Any operations in their work area where hazardous chemicals are present.

2.1.2 The location and availability of the written hazard communication program, including a list(s) of hazardous chemicals used, and the associated SDS. This information will be:

- Located at individual jobsites. All employees will have access to this location and materials during each shift. A chemical list will be provided.

2.2 Training. Employee hazard communication training at Nowland Associates, Inc. shall be conducted annually. This training will be conducted by an approved training instructor. Newly hired personnel will be briefed on the general requirements of the OSHA hazard communication standard by the Safety Officer, as well as duty specific hazards by their immediate supervisor before they begin any duties within the department. This training will include at least the following:

2.2.1 Methods (subjective and objective) that may be used to detect the presence or release of a hazardous chemical in the work area. This will include; any monitoring conducted by Nowland Associates, Inc., continuous monitoring devices, visual appearance, or odor of hazardous chemicals when being released, etc. SDS will be used augment this requirement where ever possible.

2.2.2 The physical and health hazards of the chemicals present in the work area (SDS).

2.2.3 The measures employees can take to protect themselves from these hazards. Specific procedures Nowland Associates, Inc. has implemented to protect employees from exposure to hazardous chemicals, to include; appropriate work practices, Standard Practice Instructions, emergency procedures, and personal protective equipment.

2.2.4 An explanation of the labeling system used at Nowland Associates, Inc., the SDS, and how employees can obtain and use the appropriate hazard information. This will include GHS requirements such as pictograms, etc.

2.2.5 The chemical (formal) and common name(s) of products used, and all ingredients which have been determined to be health hazards.

2.2.6 Physical and chemical characteristics of the hazardous chemical including, vapor pressure, and flash point.

2.2.7 The physical hazards of the hazardous chemical, including the potential for fire, explosion, and reactivity.

2.2.8 The health hazards of the hazardous chemical, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the chemical.

2.2.9 The primary route(s) of entry; inhalation, absorption, ingestion, injection, and target organs.

2.2.10 The OSHA permissible exposure limit, ACGIH Threshold Limit Value, including any other exposure limit used or recommended by the chemical manufacturer.

2.2.11 Whether the hazardous chemical has been found to be a potential carcinogen by the International Agency for Research on Cancer (IARC).

2.2.12 Any generally applicable precautions for safe handling and use which are known including appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for clean-up of spills and leaks.

2.2.13 Any generally applicable control measures which are known appropriate engineering controls, work practices, or personal protective equipment.

2.2.14 Emergency and first aid procedures.

2.2.15 How to determine the date of preparation of the SDS concerned, and or the last change to it.

2.2.16 Specific chemical identity such as the chemical name, Chemical Abstracts Service (CAS) Registry Number, synonyms, or any other information pertinent to the training session.

2.3 Documentation. All training will be documented using a standard company attendance roster. Certificates of completion will be issued to attendees. A copy of the completion certificate will be maintain as part of the employees permanent company record.

3. Labeling Requirements. Labeling requirements of containers of chemicals used at Nowland Associates, Inc., as well as of containers of chemicals and hazardous materials being shipped off site. The following procedures apply:

3.1 Unmarked Containers. No unmarked container containing chemicals may be used in conjunction with any duties or operations at Nowland Associates, Inc.. Unless the container is a **portable** container in the control of a specific person for their immediate use. **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 standard practice instruction, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers. **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.

3.2 Container Labeling. Nowland Associates, Inc. will maintain and provide a container labeling kit to any employee requesting its use. Employees shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced. Containers containing hazardous chemicals will be properly disposed of and the labels defaced after use. Once they are emptied, chemical containers can never be used in the place of any other container (for example, trash receptacles).

3.3 Label Information for a single chemical (non-mixture). Nowland Associates, Inc. will provide the appropriate pictogram, as necessary. The SDS will be consulted first to determine labeling requirements. The label as a minimum will contain:

- The information specified under paragraphs (f)(1)(i) through (v) of 29CFR1910.1200 for labels on shipped containers; or,
- 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.

- Signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers may be used, as long as the alternative method identifies the containers to which it is applicable and conveys the information required by paragraph (f)(6) of 29CFR1910.1200 to be on a label. This employer shall ensure the written materials are readily accessible to the employees in their work area throughout each work shift.

3.4 Label Information (mixtures). Nowland Associates, Inc. will provide the appropriate hazard rating and chemical data to label containers. The SDS's of the chemicals used to create the mixture will be consulted first to determine labeling requirements, see para 3.3.

3.4.1 If a mixture has been tested by an approved laboratory as a whole to determine its hazardous characteristics, the results of such testing shall be used to determine whether the mixture is hazardous and to provide the appropriate labeling information.

3.4.2 If a mixture has not been tested as a whole to determine whether the mixture is a health hazard, the mixture shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture. Scientifically valid data such as that provided on the SDS to evaluate the physical hazard potential of the mixture must be used. The Safety Officer may be consulted to provide any hazard analysis assistance required.

3.5 Where Labels are not required. Questions concerning any of the exceptions listed below should be directed to the Safety Officer for clarification. Nowland Associates, Inc. generally should not be affected by these requirements, however they are provided for information and because they are included in the Hazard Communication Standard. The Hazard Communication Standard does not require labeling of the following chemicals:

3.5.1 Any pesticide as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.), when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency.

3.5.2 Any food, food additive, color additive, drug, cosmetic, or medical or veterinary device, including materials intended for use as ingredients in such products (e.g. flavors and fragrances), as such terms are defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.) and regulations issued under that Act, when they are subject to the labeling requirements under that Act by the Food and Drug Administration;

3.5.3 Any distilled spirits (beverage alcohols), wine, or malt beverage intended for nonindustrial use, as such terms are defined in the Federal Alcohol Administration Act (27 U.S.C. 201 et seq.) and regulations issued under that Act, when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Bureau of Alcohol Tobacco, and Firearms.

3.5.4 Any consumer product or hazardous substance as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, when subject to a consumer product safety standard or labeling requirement of those Acts, or regulations issued under those Acts by the Consumer Product Safety Commission.

3.6 Labeling of containers of chemicals and hazardous materials being shipped off site designated as hazardous waste. Where these materials are classified as hazardous waste they fall under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 et seq.), and the provisions of 40 CFR. And as such will be subject to regulations issued under that Act by the Environmental Protection Agency. Consult with the Safety and Environmental Administrator where this determination is unclear or assistance is required.

4. Evaluation and Distribution of Safety Data Sheets to Employees.

4.1 Nowland Associates, Inc. shall maintain copies of any SDS that are received with incoming shipments of the sealed containers of hazardous chemicals, shall obtain a SDS for sealed containers of hazardous chemicals received without a SDS if an employee requests the SDS, and shall ensure that the SDS are readily accessible during each work shift.

4.2 Master copies of each SDS will be maintained in the office.

4.3 Right-To-Know (worker) copies will be available to all employees, and located as a minimum at each jobsite. Nowland Associates, Inc. will ensure a system is in place to maintain a current set of SDS's.

4.4 SDS copies will be maintained for all chemicals abandoned for use for a period of 30 years.

4.5 SDS requests. A request letter will be forwarded to any vender who does not provide an SDS with a product received by this company. The letter will be forwarded within five days of receipt of the material. The format will be the same as the sample letter located at the back of this instruction.

4.6 Employees must be familiar with the various sections of the SDS.

<u>Section</u>	<u>Contents</u>
Section I	- Product Identification
Section II	- Hazard(s) Identification
Section III	- Composition/Information on Ingredients
Section IV	- First Aid Measures
Section V	- Fire-Fighting Measures
Section VI	- Accidental Release Measures
Section VII	- Handling & Storage
Section VIII	- Exposure Controls/Personal Protection Info
Section IX	- Physical & Chemical Properties
Section X	- Stability & Reactivity
Section XI	- Toxicological Information
Section XII	- Ecological Information
Section XIII	- Disposal Considerations
Section XIV	- Transport Information
Section XV	- Regulatory Information
Section XVI	- Other Information, including date of preparation or revision

5. Non-Company Employees Program. Visitors, Contract Employees, Contractor Personnel and In-House Representatives. The principle company escort or contact will advise visitors, contract employees, contractor personnel, and in-house representatives of any chemical hazards that may be encountered in the normal course of their work on the premises, the labeling system in use, the protective measures to be taken, the safe handling procedures to be used, and availability of SDS's. Any sub-contractor bringing chemicals on-site must provide Nowland Associates, Inc. with the appropriate hazard information on these substances, including the labels used and the precautionary measures to be taken in working with these chemicals. Consult with the Safety Officer where this determination is unclear or assistance is required.

6. Trade Secrets. To protect trade secrets, the chemical manufacturer, importer, or employer may withhold the specific chemical identity, including the chemical name, and other specific identification of a hazardous chemical, from the Safety Data Sheet. To ensure the safety of our employees, Nowland Associates, Inc. will obtain any information not shown on a SDS from a supplier, when such information is needed to determine the hazardous constituents of chemicals used within our facility or by our employees. Nowland Associates, Inc. employees will not use a specific chemical, if they cannot determine from the SDS (or other approved source) proper protective measures to be used. The following conditions apply:

6.1 Emergency situations. Where a treating physician or nurse determines that a medical emergency exists and the specific chemical identity of a hazardous chemical is necessary for emergency or first-aid treatment, Nowland Associates, Inc. suppliers are required by law to immediately disclose the specific chemical identity of a trade secret chemical to that treating physician or nurse, regardless of the existence of a written statement of need of a confidentiality agreement.

6.2 Non-emergency situations. The following OSHA guidelines apply when requesting information designated as a trade secret from a SDS. Requesters of trade secret information will:

6.2.1 Provide the request in writing.

6.2.2 Explain in detail why the disclosure of the specific chemical identity is essential.

6.2.3 Agree (when required) in a written confidentiality agreement that the information will not be used for any purpose other than the health need(s) asserted and agree not to release the information under any circumstances other than to OSHA, as provided in 29 CFR 1910.1200.

6.2.4 Use the information for the following reasons:

6.2.4.1 To assess the hazards of the chemicals to which employees will be exposed.

6.2.4.2 To conduct or assess sampling of the workplace atmosphere to determine employee exposure levels.

6.2.4.3 To conduct pre-assignment or periodic medical surveillance of exposed employees.

6.2.4.4 To provide medical treatment to exposed employees.

6.2.4.5 To select or assess appropriate personal protective equipment for exposed employees.

6.2.4.6 To select or improve engineering controls or other protective measures for exposed employees, and to conduct studies to determine the health effects of exposure.

7. Unlabeled Process Piping. Process piping containing hazardous materials will identify the material present, the direction of flow and the maximum pressure achieved in the system.

8. Non Routine Tasks. No employee will be allowed to perform tasks that they are not fully trained to accomplish. Non routine tasks will be evaluated prior to accomplishment of work and the related hazard(s) assessed to develop protective measures. This process will be documented on the company “non-routine assessment form”.

9. Definitions Commonly Found in the OSHA Hazard Communication Standard or that Relate to the Contents of the Standard.

Article means a manufactured item:

1. Which is formed to a specific shape or design during manufacture.
2. which has end use function(s) dependent in whole or in part upon its shape or design during end use.
3. which does not release, or otherwise result in exposure to, a hazardous chemical, under normal conditions of use.

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 °F (37.8 °C), but below 200 °F (93.3 °C), except any mixture having components with flashpoints of 200 °F (93.3 °C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

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 °F (21.1 °C); or

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

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.

Director means the Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

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 to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.), and includes potential (e.g. accidental or possible) exposure.

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:

2.1 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.

2.2 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.

2.3 Liquid, flammable means any liquid having a flashpoint below 100 °F (37.8 °C), except any mixture having components with flashpoints of 100 °F (37.8 °C) or higher, the total of which make up 99 percent or more of the total volume of the mixture.

2.4 Solid, flammable means a solid, other than a blasting agent or explosive as defined in § 190.109(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 °F (37.8 °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 °F (37.8 °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)). Organic peroxides, which undergo autoaccelerating 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.

Hazard category means 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 means the nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.

Hazard not otherwise classified (HNOC) means 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. This does not extend coverage to adverse physical and health effects for which there is a hazard class addressed in this section, but the effect either falls below the cut-off value/concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).

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 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 hazard(s) of the chemical(s) in the container(s).

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, to 29 CFR 1910.1200 provides further definitions and explanations of the scope of health hazards covered by this section, and Appendix B, 29 CFR 1910.1200 describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for purposes of this standard practice instruction.

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

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.

Importer means the first business with employees within the Customs Territory of the United States which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

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 29 CFR 1910.1200, paragraph (g).

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 29 CFR 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.

Pictogram means 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 means 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.

Produce means to manufacture, process, formulate, or repackage.

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

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

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 means 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.

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.

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, or transfer.

Water-reactive means a chemical that reacts with water to release a gas that is either flammable or presents a health hazard. Often when the water is heated it goes into a gaseous state allowing oxygen to be released which can help feed a fire.

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

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