



TOWN OF ROCKY HILL:
2024 Hazard Communication Program

*Please note this version only includes Appendix H.

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Town of Rocky Hill Hazard Communication Program

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Summary Page

	Facilities/ Town Hall	Highway/ Transfer Station	Parks	Police Department	Community Pool	High School Pool
Persons Resp. for Implement	Facilities Director	Highway Superintendent	Crew Leader	Police Chief	Aquatics Director	Aquatics Director
Chemical Storage Areas	Custodial closet off gym is main storage for all facility buildings.	- Area underneath storage loft, between both garages. - Flammables cabinet on upper rear loft. - Fuel Island with in ground storage tanks.	- Far wall of last mechanics bay. - Storage room located off of last mechanics bay. - Aboveground diesel fuel tank.	- Main Custodial Closet. - Custodial closets throughout building.	Chemical Storage room at far end of pool building.	- Filter Room - Pool Storage Room.
Location of SDS Book all depts. can access electronic: www.hazcompliance.com Username: rockyhill Password: msds26	-Employee entrance of community center. -Applicable buildings will store SDS Books in main offices. (Refer to Watch offices in FD)	Foyer outside of the breakroom.	Mechanics garage outside of office area.	Main storage in Custodial Closet next to communications area.	Filter Room.	- Pool Storage Room. - Filter room.
Type of Labeling System Used for Transfer Containers	HMIS preprinted bottles supplied by distributor.	HMIS sticker labels.	HMIS preprinted bottles supplied by distributor.	HMIS preprinted bottles supplied by distributor.	Transfer bottles forbidden.	Transfer bottles forbidden.
Types of Detection Devices (NOx monitor, Leak Alarms, etc..)	N/A	N/A	N/A	N/A	N/A	Leak Monitors.
Spill Response Kit locations and Procedure	- Absorbent in main custodial closet off of gym. - Contain and contact Clean Harbors.	- Absorbent and spill kits under storage loft between garages. - Contain and contact Clean Harbors.	Contact Clean Harbors.	Contact Clean Harbors.	Contact Clean Harbors.	Contact Clean Harbors.
Emergency Response Devices (eyewash station, showers)	Portable eyewash units above utility sinks.	Eyewash station near parts washer.	Eyewash and shower station in garage outside of offices.	Portable station in main custodial closet.	Eyewash station in Filter Room.	Eyewash station in Filter Room.
Frequent Exposure Chemicals/ Hazard	Cleaning Chemicals Asbestos Paint Fluorescent Lights Biological Hazards	Used Motor Oil Silica Solvents Carbon Monoxide Paints Compressed Gases Flammable Fuels Welding fumes	Used Motor Oil Carbon Monoxide Compressed Gases Paints Flammable Fuels Welding fumes	Cleaning Chemicals Paints Biological Hazards	pH Minus- corrosive Chlorine Tabs Biological Hazards	pH Minus- corrosive Chlorine Tabs Biological Hazards

Overview:

This Hazard Communication Program is intended to ensure compliance with applicable federal and state health and safety rules. For the purposes of this program, “Rocky Hill” or the “Town of Rocky Hill” refers to the employees of the following departments: Facilities, Highway Department, Transfer Station, Parks Department, Police Department (the facility where the stationed employees are concerned), and the Aquatics Department pertaining to the Town pools.

The Town of Rocky Hill is committed to providing a safe and healthy work environment for its entire staff. This program is designed to increase employee awareness of the hazardous chemicals used in the workplace. Under this program employees are informed of the contents of the health and safety rules, the hazardous properties of chemicals with which they work with, safe handling procedures, and measures to take to protect themselves from these chemicals.

It is expected that after reading this program the reader will be familiar with Rocky Hill’s Hazard Communication Program, as it fulfills the requirements of Occupational Safety and Health Administrations (OSHA) regulations. The information of this regulation as it pertains to training and information is given to employees affected.

This program is to comply with the Department of Labor, Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (HCS), Title 29 Code of Federal Regulations (CFR) 1910.1200 Subpart Z and will be implemented and enforced. The purpose of this law is to ensure that information is shared about the hazards of all chemicals and chemical products used by the Town of Rocky Hill, Connecticut.

The following table (Table 1) contains an overview of Rocky Hill’s Hazard Communication Program. Included are persons responsible per department and implantation of procedures. “Types of Detection Devices” listed in this section does not refer to lifesaving detection devices; rather, these are for leak and/ or exposure alarms from possible chemicals leaks and/ or spills. Departments not requiring devices due to low quantity of chemical hazards are marked “N/A”.

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Location of SDS Book	-Employee entrance of community center. -Applicable buildings will store SDS Books in main offices. (Refer to Watch offices in FD)	Foyer outside of the breakroom.	Mechanics garage outside of office area.	Main storage in Custodial Closet next to communications area.	Filter Room.	- Pool Storage Room. - Filter room.
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Glossary of Terms Related to Right to Know:

Chemical – Any element, chemical compound or mixture of elements and/or compounds.

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

Commercial Account – An arrangement whereby a retail distributor sells hazardous chemicals to an employer, generally in large quantities over time and/or at costs that are below the regular retail price.

Common Name – 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 –

A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 deg. F (21.1 deg. C); or

A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 deg. F (54.4 deg. C) regardless of the pressure at 70 deg. F (21.1 deg. C); or

A liquid having a vapor pressure exceeding 40 psi at 100 deg. F (37.8 deg. C) as determined by ASTM D-323-72.

Container – Any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

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

Distributor – A business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

Employee – 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 – A person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

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Explosive – 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 – 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.)

Flammable Aerosol – An aerosol that, when tested by the method described in 16 CFR 1500.45, yields a flame protection exceeding 18 inches (45.7 cm) at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening.

Flammable Gas – Gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of 13 percent by volume or less; or a gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than 12 percent by volume, regardless of the lower limit.

Flammable Liquid – Means any liquid having a flashpoint below 100 degrees Fahrenheit (37.8 degrees Celsius), except any mixture having components with flashpoints of 100 Fahrenheit (37.8 degrees Celsius) or higher, the total of which make up 99percent or more of the total volume of the mixture.

Flammable Solid – Means a solid, other than a blasting agent or explosive as defined in § 1910.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or that 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 – The minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite.

Foreseeable Emergency – 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.

Global Harmonized System (GHS) – An international system for standardizing and harmonizing the classification and labeling of chemicals. OSHA has recently aligned the HCS with the GHS. The GHS system will change the appearance of the new MSDS, which will soon be the SDS, as well as changing the labels of both inner and outer packaging by incorporating hazard pictograms, a different hazard classification systems, hazard and precautionary statements, amongst several other minor changes.

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.

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Hazard Statement – 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 – 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 – 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.

Immediate Use – 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.

Label – Any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

Label Elements – The specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

(M)SDS – Reference to either a Material Safety Data Sheet (documents used prior to the change in accordance with the GHS) or Safety Data Sheet (see below).

Mixture – A combination or a solution composed of two or more substances in which they do not react.

Organic Peroxide – 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 – A chemical other than a blasting agent or explosive as defined in 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 – 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.

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

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Responsible Party – Someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

Safety Data Sheet (SDS) – Written or printed material concerning a hazardous chemical that is prepared to provide important safety information to users of that chemical.

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 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.

Specific Chemical Identity – The chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

Unstable (reactive) – 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 – To package, handle, react, emit, extract, generate as a byproduct, or transfer.

Water-Reactive – A chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

Work Area – A room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

Workplace – Establishment, job site, or project, at one geographical location containing one or more work areas.

Definitions of Hazards

Carcinogen – A chemical is considered to be a carcinogen if:

It has been evaluated by the International Agency for Research on Cancer (IARC), and found to be a carcinogen or potential carcinogen; or

It is listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) (latest edition); or, it is regulated by OSHA as a carcinogen.

Corrosive – A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. For example, a chemical is considered to be corrosive if, when tested on the intact skin of albino rabbits by the method described by the U.S. Department of Transportation in Appendix A to 49 CFR part 173, it destroys or changes irreversibly the structure of the tissue at the site of contact following an exposure period of four hours. This term shall not refer to action on inanimate surfaces.

Highly Toxic – A chemical falling within any of the following categories:

A chemical that has a median lethal dose (LD(50)) of 50 milligrams or less per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.

A chemical that has a median lethal dose (LD(50)) of 200 milligrams or less per kilogram of body weight when administered by continuous contact for 24 hours (or less if death

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occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.

A chemical that has a median lethal concentration (LC(50)) in air of 200 parts per million by volume or less of gas or vapor, or 2 milligrams per liter or less of mist, fume, or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

Irritant – A chemical, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact. A chemical is a skin irritant if, when tested on the intact skin of albino rabbits by the methods of 16 CFR 1500.41 for four hours exposure or by other appropriate techniques, it results in an empirical score of five or more. A chemical is an eye irritant if so determined under the procedure listed in 16 CFR 1500.42 or other appropriate techniques.

Sensitizer – A chemical that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure to the chemical.

Toxic – A chemical falling within any of the following categories:

A chemical that has a median lethal dose (LD(50)) of more than 50 milligrams per kilogram but not more than 500 milligrams per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.

A chemical that has a median lethal dose (LD(50)) of more than 200 milligrams per kilogram but not more than 1,000 milligrams per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.

A chemical that has a median lethal concentration (LC(50)) in air of more than 200 parts per million but not more than 2,000 parts per million by volume of gas or vapor, or more than two milligrams per liter but not more than 20 milligrams per liter of mist, fume, or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

Target Organ Effects – The following is a target organ categorization of effects which may occur, including examples of signs and symptoms and chemicals which have been found to cause such effects. These examples are presented to illustrate the range and diversity of effects and hazards found in the workplace, and the broad scope employers must consider in this area, but are not intended to be all-inclusive.

- ***Hepatotoxins*** – Chemicals which produce liver damage
Signs & Symptoms: Jaundice; liver enlargement
Chemicals: Carbon tetrachloride; nitrosamines
- ***Nephrotoxins*** – Chemicals which produce kidney damage
Signs & Symptoms: Edema; proteinuria
Chemicals: Halogenated hydrocarbons; uranium
- ***Neurotoxins*** – Chemicals which produce their primary toxic effects on the nervous system
Signs & Symptoms: Narcosis; behavioral changes; decrease in motor functions

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Chemicals: Mercury; carbon disulfide

- Agents which act on the blood or hemato-poietic system – Decrease hemoglobin function; deprive the body tissues of oxygen
Signs & Symptoms: Cyanosis; loss of consciousness
Chemicals: Carbon monoxide; cyanides
- Agents which damage the lung – Chemicals which irritate or damage pulmonary tissue
Signs & Symptoms: Cough; tightness in chest; shortness of breath
Chemicals: Silica; asbestos
- Reproductive toxins – Chemicals which affect the reproductive capabilities including chromosomal damage (mutations) and effects on fetuses (teratogenesis)
Signs & Symptoms: Birth defects; sterility
Chemicals: Lead; DBCP
- Cutaneous hazards – Chemicals which affect the dermal layer of the body
Signs & Symptoms: Defatting of the skin; rashes; irritation
Chemicals: Ketones; chlorinated compounds
- Eye hazards – Chemicals which affect the eye or visual capacity
Signs & Symptoms: Conjunctivitis; corneal damage
Chemicals: Organic solvents; acids

Duties and Responsibilities:

This program has been established to provide guidelines for all employees of Rocky Hill to meet the requirements of the HCS. The program applies to any hazardous chemical(s), which is known to be present on the premises, which employees may be exposed to under normal conditions of use or in a foreseeable emergency.

The Department Director or persons as outlined in Table 1 shall be responsible for overall implementation of this program. S/He shall ensure all employees are trained in hazard communications, including how to read an SDS. S/He will also maintain a chemical inventory list of all hazardous materials utilized by that department.

The Department Director, or designees, will also be responsible for ensuring employees are following safe work practices with chemicals. Their responsibilities will also include the following:

- Review chemical hazards before commencement of any duties entailing exposure to substances.
- Maintain a chemical inventory list of all hazardous materials utilized by employees.
- During the retrieval of hazardous chemicals, s/he will be responsible for ensuring the most up-to-date SDS is accompanied with the product before allowing employees to handle the chemical.
- Informing employees of chemical hazards during non-routine tasks.

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- Provide subcontractors with the list of hazardous chemicals at multi-employer sites and obtain list from them. This list has been made available on our website.
- Informing contractors with information about hazardous chemicals they may be exposed to.
- Ensuring that all containers have a label and all secondary containers are properly labeled.

Employees shall follow all safe work practices with chemicals and inform the Department Director or designee of any hazards that may be unknown. With guidance from the Department Director or designee, employees will also be responsible for the following:

- Attend required training and never take shortcuts when handling, using, storing, or transporting hazardous chemicals.
- Use proper protective clothing and equipment for the chemicals being used, make sure protective equipment fits properly, follow instructions for cleaning and storage, report any damage to equipment or articles promptly, and maintain replacements as necessary.
- Learn how to use the emergency eyewash and showers (where available). Know emergency procedures and the location of spill containment equipment.
- Ensure the container will be compatible with the chemicals being stored when a new chemical or substance must be transferred to a container other than the manufacturers.
- Keep all labels on containers, not deface labels, and notify a supervisor if containers are incorrectly labeled or damaged.
- Employees shall not bring in any chemicals for which there is not an SDS.

Labeling:

Labels, as defined in the HCS, are an appropriate group of written, printed or graphic informational elements concerning a hazardous chemical that are affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

Label Requirements

All containers in the workplace containing toxic or hazardous substances must be labeled with the chemical name of the substance. Containers of mixtures must be labeled with the chemical name of each toxic or hazardous constituent when the constituents comprise one percent or more of the mixture. Containers will be labeled with the appropriate information. Labels must be clear, prominent, in English and weather resistant.

All containers used in the storage and transportation of hazardous/toxic chemicals or products must be labeled, tagged or marked with the following information:

- Identity of the hazardous chemicals;
- Appropriate hazard warnings; and

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- The name and address of the manufacturer/supplier or individual responsible for the hazard information.

Labels provide an immediate warning to employees regarding workplace chemical hazards. Employees must consult these labels before using a chemical/product. Removing or defacing a label is not permitted. If a label is removed because of age and/or use, a new label shall be applied and must have the following information in English: chemical identity/product name, appropriate hazard warnings, and (when possible) the name and address of the manufacturer, supplier, or importer. This information can be obtained from the SDS on file.

All transfer or temporary storage containers are to be labeled with the information mentioned in previous paragraph regarding new labels. Any individual who transfers chemical products from a labeled container to an unlabeled container is responsible to mark the unlabeled container with the required information. An exception to this rule is when an employee will be using the transferred chemical product in the container immediately for his or her own use and there will be no liquid or residue left in the container after initial use. If a label will not “stick” to a container, the label shall be fixed in some manner, such as a tag with the appropriate information on it.

It is the responsibility of the Department Director, Supervisors and relevant employees to assure that the identity and the hazard warnings are placed on all containers that have been transferred from the original drum or container. It is also their responsibility to assure that the identity, the hazard warnings and the name and address of the supplier are on the received/shipped container(s).

Rocky Hill primarily uses the HMIS system for workplace labeling, coupled with additional safety information. Many of the transferred containers are pre-printed with manufacturer safety information on them.

Labeling Systems

There are several systems and standards accepted by OSHA to satisfy labeling requirements in the workplace. Each system and standard has unique advantages and limitations. To fulfill government regulations for labeling, employers may use different systems/standards, or a combination of, to achieve compliance of information. The following listings represent some of the systems or standards used today. It should be noted, however, that manufacturers, suppliers, and importers are required to now follow the GHS system of labeling, outlined first below.

Globally Harmonized System (GHS) Labeling

The GHS, more accurately named The Globally Harmonized System of Classification and Labeling of Chemicals, is an international system for standardizing and harmonizing the classification and labeling of chemicals. OSHA has recently aligned the HCS with the GHS. The GHS system has changed the appearance of labels, of both inner and outer packaging, by incorporating hazard pictograms, a different hazard classification systems, hazard and precautionary statements, amongst several other minor changes.

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Pictograms are red bordered diamonds with a picture indicating the hazard(s) associated with the chemical. There are a total of nine pictograms. After relevant training, employees should be able to recognize and interpret these labels. The following outline from OSHA’s website (www.osha.gov) depicts the standard hazard label pictograms and their meaning:

In addition to the pictogram, the label should also have, where warranted, a signal word which would be “Danger” indicating a highly harmful chemical or “Warning” which is a lesser hazard, though precautions still need to be taken while handling this chemical.

GHS Pictograms and Hazards		
<p>Health Hazard</p>  <ul style="list-style-type: none"> ▪ Carcinogen ▪ Mutagenicity ▪ Reproductive Toxicity ▪ Respiratory Sensitizer ▪ Target Organ Toxicity ▪ Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> ▪ Flammables ▪ Pyrophorics ▪ Self-Heating ▪ Emits Flammable Gas ▪ Self-Reactives ▪ Organic Peroxides 	<p>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>Gas Cylinder</p>  <ul style="list-style-type: none"> ▪ Gases Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> ▪ Skin Corrosion/Burns ▪ Eye Damage ▪ Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> ▪ Explosives ▪ Self-Reactives ▪ Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none"> ▪ Oxidizers 	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none"> ▪ Aquatic Toxicity 	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"> ▪ Acute Toxicity (fatal or toxic)

GHS Hazard Classification

Chemicals are divided into three types of hazards (Health, Physical, Environmental); within each hazard there are different classes and multiple categories depending on the nature and, if applicable, the degree of hazard of the chemical product.

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GHS classification of hazards is divided into class and category. These describe the nature and, if applicable, the degree of hazard of the chemical product. GHS uses three types of hazards: Health, Physical, and Environmental Hazards. It should be noted that the last hazard, Environmental, is not regulated by OSHA and therefore will not be addressed in detail in the program. It is important to note that, unlike HMIS and NFPA 0-4 ranking system outlined in subsequent sections, the GHS classification system uses 1 as the more severe. Below is a brief description of the three types of hazards and their classes and categories.

Note: although the hazard class is listed on the GHS Labels, the category is not; rather the category is provided on the SDS in section 2.

Health Hazard – OSHA defines a health hazard as 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. Chemicals covered by this definition include carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes.

Hazard Class	Associated Hazard Category
Acute toxicity	Categories 1 – 4 (with 1 being the most dangerous)
Skin corrosion	Categories 1A, 1B, 1C, and 2
Skin irritation	Categories 1A, 1B, 1C, and 2
Eye effects	Categories 1, 2A, and 2B
Sensitization (skin or eye)	Categories 1A and 1B
Germ cell mutagenicity	Categories 1A, 1B, and 2
Carcinogenicity	Categories 1A, 1B, and 2
Reproductive toxicity	Categories 1A, 1B, 2, and additional category for effects on or via lactation
Target organ systemic toxicity: single and repeated exposure	Single: Categories 1 – 3 Repeated: Categories 1 and 2
Aspiration toxicity	Categories 1 and 2

Physical Hazard – OSHA defines a physical hazard as 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.

Hazard Class	Associated Hazard Category
Flammable gases	Categories 1 and 2
Flammable aerosols	Categories 1 and 2
Oxidizing gases	Category 1
Flammable liquids	Categories 1 - 4
Flammable solids	Categories 1 and 2

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Oxidizing liquids	Categories 1 – 3
Oxidizing solids	Categories 1 – 3

Environmental Hazard – A substance, state or event which has the potential to threaten the surrounding natural environment and / or adversely affect people's health.

Hazard Class	Associated Hazard Category
Acute Aquatic Toxicity	Categories 1 – 3
Chronic Aquatic Toxicity	Categories 1 – 4

The chemical manufacturer, importer, or distributor must ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked. Hazards not otherwise classified do not have to be addressed on the container. At a minimum, these manufacturer labels must include the following information:

- Product identifier used on the safety data sheet
- Name, address and telephone number of the chemical manufacture, importer, or other responsible party.
- Labels for each hazardous chemical that is classified shall also include the following:
 - Signal word (Danger, Warning)
 - Hazard statement(s)
 - Pictogram
 - Precautionary statement(s)

June 1, 2015 was the effective date manufacturers, importers, and distributors had to ensure containers were labeled with the GHS system. Employees of the Town of Rocky Hill will continue to see received containers marked with the GHS label, though should be familiar with older popular systems (NFPA and HMIS) in case a supplier is not up to date with GHS compliance. The GHS label will resemble the following example, taken from the OSHA Publication:

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SAMPLE LABEL

CODE _____ Product Name _____	}	Product Identifier	Hazard Pictograms 
Company Name _____ Street Address _____ City _____ State _____ Postal Code _____ Country _____ Emergency Phone Number _____	}	Supplier Identification	Signal Word Danger
Keep container tightly closed. Store in a cool, well-ventilated place that is locked. Keep away from heat/sparks/open flame. No smoking. Only use non-sparking tools. Use explosion-proof electrical equipment. Take precautionary measures against static discharge. Ground and bond container and receiving equipment. Do not breathe vapors. Wear protective gloves. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Dispose of in accordance with local, regional, national, international regulations as specified. In Case of Fire: use dry chemical (BC) or Carbon Dioxide (CO ₂) fire extinguisher to extinguish. First Aid If exposed call Poison Center. If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.	}	Precautionary Statements	Highly flammable liquid and vapor. May cause liver and kidney damage.
			Hazard Statements
			Supplemental Information Directions for Use _____ _____ _____ Fill weight: _____ Lot Number: _____ Gross weight: _____ Fill Date: _____ Expiration Date: _____

OSHA 3492-02 2012

National Fire Prevention Association

NFPA 704 -2007 – The National Fire Protection Association (NFPA) has developed a color-coded system called NFPA 704. The system uses a color coded diamond with four quadrants in which numbers are used in the upper three quadrants to signal the degree of emergency – **health hazard**, **fire hazard**, and **reactivity hazard**. The bottom quadrant is used to indicate water reactivity, radioactivity, biohazards, or other special hazards. The emergency hazards are listed on a numerical scale of 0 to 4 where, 0= no unusual hazard, 1= minor hazard, 2= moderate hazard, 3= sever hazard, and 4= extreme hazard. This system is primarily used by emergency response personnel and for emergency planning. It does not adequately alert employees to occupational hazards or precautionary information, though is regularly seen because it does give an initial indication of hazards in an emergency.



RED = Flammability - Susceptibility of Material to Burning

0	Material will not burn	Example: Water
1	Material must be pre-heated before ignition can occur	Example: Corn Oil
2	Material must be moderately heated or exposed to relatively high ambient temperature before ignition can occur	Example: Diesel fuel oil
3	Liquids and solids that can be ignited under almost all ambient temperature conditions	Example: Gasoline
4	Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature, or that are readily dispersed in air, and that will burn readily	Example: Propane gas

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BLUE = Type of Possible Injury

0	Material that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible material	Example: Peanut oil
1	Material that on exposure would cause irritation but only minor residual injury	Example: Turpentine
2	Material that on intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury	Example: Ammonia gas
3	Material that on very short exposure could cause death or major residual injury	Example: Chlorine gas
4	Material that on very short exposure could cause death or major residual injury	Example: Hydrogen cyanide

YELLOW = Reactivity - Susceptibility of Material to Burning

0	Material that in itself is normally stable, even under fire exposure conditions, and is not reactive with water	Example: Liquid nitrogen
1	Material that in itself is normally stable, but which can become unstable at elevated temperatures and pressures	Example: Phosphorous (red or white)
2	Material that readily undergoes violent chemical change at elevated temperatures and pressures or which reacts violently with water or which may form explosive mixtures with water	Example: Calcium metal
3	Material that in itself is capable of detonation or explosive decomposition	Example: Fluorine gas
4	Material that in itself is readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures	Example: Trinitrotoluene (TNT)

WHITE = Special Precautions

W	Material shows unusual reactivity with water (i.e. don't put water on it)	Example: Magnesium metal
OX	Material possesses oxidizing properties	Example: Ammonium nitrate
ACID	Material is an acid	
ALK	Material is a base (alkaline)	
COR	Material is corrosive	
	Material is radioactive	

Hazardous Materials Identification System

HMIS III - The National Paint & Coatings Association (NPCA) Hazard Materials Information System (HMIS) is one of the most widely used systems for labeling hazard chemicals. The system uses standard labels to communicate hazards through the use of colors, numbers, letters of the alphabet, and symbols. The HMIS is a five-part rectangle that provides identification of the chemical, acute health hazards, flammability, physical hazard, personal protective equipment (PPE) designations, and chronic health hazard data. The numerical indication is similar to the NFPA system. An alphabetical designation is used to denote recommended PPE. If the second box on the blue health bar is marked with an asterisk (*), the health hazard associated with the material is a chronic or long-term hazard.



Further explanation for the numeric rating system is as follows:

Health	
4	Life-threatening, major or permanent damage may result from single or repeated overexposures
3	Major injury likely unless prompt action is taken and medical treatment is given
2	Temporary or minor injury may occur
1	Irritation or minor reversible injury possible
0	No significant risk to health

Flammability	
For HMIS III, flammability criteria are defined according to OSHA	
4	Flammable gases or very volatile flammable liquids with flash points below 73°F, and boiling points below 100°F. Materials may ignite spontaneously with air. (Class IA)
3	Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73°F and boiling points above 100°F, as well as liquids with flash points between 73°F and 100°F. (Classes IB & IC)
2	Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100°F but below 200°F. (Classes II & IIIA)
1	Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200°F. (Class IIIB)
0	Materials that will not burn.

Physical Hazard	
4	Material that is readily capable of explosive water reaction, detonation or explosive decomposition, polymerization, or self-reaction at normal temperature and pressure.
3	Materials that may form explosive mixtures with water and are capable of detonation or explosive reaction in the presence of a strong initiating source. Materials may polymerize, decompose, self-react, or undergo other chemical change at normal temperature and pressure with moderate risk of explosion.
2	Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.
1	Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react nonviolently with water or undergo hazardous polymerization in the absence of inhibitors.
0	Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.

Unlabeled Pipes and Pipelines

Where chemicals are transferred through pipes, employees and on-site contractors need to be aware of potential hazards.

Employees and contractors will be notified of chemicals in pipes prior to any work that may need to be done on them or in the vicinity. They will also be notified of any measures to take to protect themselves from these hazards. This will include appropriate work practices, emergency procedures, and any PPE that will need to be used.

Safety Data Sheets

A Safety Data Sheet (SDS) is a document created by the chemical manufacturer, distributor or importer that explains important safety information about a particular chemical. The Town of Rocky Hill relies on the manufacturers, distributors, and importers to perform the hazard determination/ evaluation on the chemical products that are purchased by the department. The OSHA Standard requires employers to have a SDS in the workplace for each hazardous chemical which is used. The SDS must be available in English and readily available to employees at any time.

Some products may still have a Material Safety Data Sheet (MSDS); the former title of SDS. This is likely due to delay by the manufacturer. As an end user of chemicals, we are not reliable for the development of the SDS for products.

Each of the following areas will have its own SDS binder to reference:

- Town Hall/Facilities Department
- Library
- Highway/Transfer Station
- Parks Department
- Police Department
- Outdoor Pools
- High School Pool

Additionally, Rocky Hill maintains an online access to the SDS's. This is accessed by going to the website www.hazcommpliance.com and selecting in the upper right "client area", and then logging in with the following information:

Username: rockyhill

Password: msds26

Safety Data Sheets are in a standard format that is internationally recognized and will have the following format:

Section 1: Identification; this section should include the name of the chemical as it appears on the GHS label and any other common names or synonyms. It should include the name, address, and phone number of the manufacturer or importer as well as an emergency phone number. It should also include recommended use of the chemical or any restrictions in its use.

Section 2: Hazard(s) identification; this area should include the hazard classification, signal word, hazard statement, pictograms, precautionary statements, and hazards not otherwise classified. For mixtures, if the hazards of an ingredient are not known, there should be a description of the percent of the ingredient in the mixture.

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Section 3: Composition/information on ingredients; identifies the ingredient(s) including the chemical name (and synonyms), Chemical Abstract Service (CAS) number, and any impurities or stabilizers. If component(s) are trade secrets, a statement indicating that the chemical identity is being withheld for this reason is required.

Section 4: First-aid measures; this should include initial care required for employees exposed to the chemical. It should also include the symptoms or effects of exposure, including acute and delayed effects. Any special treatment needed should also be included in this section.

Section 5: Fire-fighting measures; should include information on how to fight a fire caused by or involving the chemical. Extinguishing agents, specific hazards, precautions and special protective equipment should be included.

Section 6: Accidental release measures; identifies responses to spills, leaks, and other releases. This section should include PPE, emergency procedures, precautions, evacuation guidance, and instructions for containment and clean-up.

Section 7: Handling and storage; this section should communicate how to safely handle and store the chemical. This should include handling and storage practices for incompatible chemicals.

Section 8: Exposure controls/personal protection; this should list exposure control limits, engineering controls to maintain safe exposure in the workplace (ex., ventilation), and PPE recommendations.

Section 9: Physical and chemical properties; this should include appearance, flammability/explosive limits, odor, vapor pressure and density, pH, flash point, melting point, viscosity, etc.

Section 10: Stability and reactivity; this section is for defining the chemical stability and the reactivity hazards. It should include stability under ambient temperature and normal conditions for storage and handling; safety issues if the chemical changes its physical appearance, and information if the chemical will react or polymerize.

Section 11: Toxicological information; this section should include toxicology and health effects, including specific routes of exposure, chronic and acute effects, LD50 data, description of symptoms from a range of exposures, if the substance is a carcinogen, and medical conditions aggravated from exposure to the chemical.

Section 12: Ecological information; includes information regarding the environmental impact of the chemical if released to the environment.

Section 13: Disposal considerations; this includes information on proper disposal practices. Although this may reference EPA requirements, it may not include specific state or local requirements.

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Section 14: Transport information; DOT information is included in this section for proper shipping.

Section 15: Regulatory information; this includes safety, health and environmental regulations that may not appear elsewhere on the SDS.

Section 16: other information; includes date of preparation or last revision.

*If no relevant information is available for the section, the SDS should be marked to indicate that no applicable information was found.

Safety data sheets shall also be made readily available, upon request, to designated representatives of the OSHA Administration, the Assistant Secretary, and the Director, in accordance with the requirements of § 1910.1020(e).

Employees and independent contractors are required to notify the Department Director or their immediate supervisor if they discover that a SDS is not available.

Manufacturer Requirements for Providing SDSs

Chemical manufacturers, importers and/or distributors shall ensure that employers are provided an appropriate safety data sheet with the initial shipment and with the first shipment after a safety data sheet is updated. The safety data sheet must either be provided with the shipped containers or sent to the employer prior to or at the time of shipment. If for any reason, we do not receive the appropriate SDS, the Department Directors will see that it is obtained.

Resources for Obtaining SDSs/ Employee Right to Know

Any individuals that purchase or authorize the purchase of hazardous chemical products used by employees are responsible to obtain the SDS for those chemicals. If the individual responsible for the purchase of the chemical or product is unable to obtain an SDS, that individual must contact a Department Director or Supervisor, who will then contact the manufacturer, distributor, or importer to obtain the current SDS. Anyone may also call HazCommpliance, LLC to request an SDS at (860) 432-0351 or email info@hazcommpliance.com (*Note: Emergency response should still call 911 or use the emergency contact on the SDS for any chemical exposure*).

Any new chemicals or products that are delivered without an SDS and are likely to introduce a new hazard into the work area must be held in storage. They can be removed from storage and used by employees once the SDS is received and the employees using the chemical products are trained on its use and any hazards associated with the new chemical product.

Any new/updated SDS received in new shipments of chemicals/products shall be handed over to the Department Director and s/he shall update the main SDS binder and chemical inventory list. The Department Director shall assure that all SDS of chemicals that employees have had an exposure to are retained for a period of at least thirty (30) years after the chemical/product is no longer being used.

Hazardous Chemicals:

The Town of Rocky Hill has established and will maintain a list of all hazardous chemicals used by employees. This list is located in Appendix A of this program. It is maintained with an up-to-date chemical inventory based on OSHA's Hazard Communication Standard. The list will be maintained throughout the year by the Department Directors and Supervisors. The inventory is ongoing and current at all times and will include the names of the product and its manufacturer. The list will be readily accessible to all employees at all times within this Hazard Communication Program. At each SDS book location (refer to Table 1 for locations), a list of chemicals for that location can be found within the cover of the book.

Employees may be at risk of being exposed to hazardous substances and it is important to know which hazards we can face. A sudden release of toxic materials due to a work related accident, or as a result of human error, could potentially be fatal.

Pertinent Hazards

Corrosives

A corrosive chemical is a chemical that causes visible destruction of or irreversible alterations in living tissue by chemical action at the site of contact. Some examples are acids, bases and dehydrating agents.

A list of products that, according to their SDS, are corrosive chemicals are listed in Appendix B in the back of this program. Corrosives list can also be found in the SDS binder at each area.

When working with corrosive materials, handlers should wear safety goggles and/ or splash shields, rubber aprons and chemical resistant gloves. Appropriate shoes should also be worn (no open-toed or cloth shoes). Primary signs of skin or eye exposure include irritation, redness, and burning. If symptoms occur use the emergency showers to rinse the area for a minimum of 15-20 minutes and notify a Supervisor or a Department Director.

Oxidizers

Oxidizing chemicals are materials (gas, liquid, or solid) that spontaneously evolve oxygen at room temperature, with slight heating or promote combustion. This class of chemicals includes peroxides, chlorates, perchlorates, nitrates, and permanganates. Strong oxidizers are capable of forming explosive mixtures when mixed with combustible, organic, or easily oxidized materials.

A list of products that, according to their SDS, are oxidizers are obtainable at the end of this program in Appendix C. A list of oxidizers in each area can be located within the SDS binder. These products shall be used with caution, and proper personal protective equipment such as splash goggles and nitrile gloves shall be worn as listed by the SDS.

Oxidizers should be stored in a cool and dry location. Keep oxidizers segregated from all other chemicals in the facility. Minimize the quantities of strong oxidizers stored in the labs and the

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shop. Never return excess chemicals to the original container. Small amounts of impurities may be introduced into the container which may cause a fire or explosion.

Compressed oxygen should not be stored alongside of compressed acetylene or other flammable gases.

Flammable Materials

Flammable liquid, defined here for hazard identification purposes rather than system classification, means a liquid having a flash point of not more than 100° degrees F. Substances and mixtures of this hazard class are assigned to one of four hazard categories on the basis of the flash point and boiling point.

Areas where there are more than 25 (twenty-five) gallons of flammable or combustible liquids, such as approved storage cabinets must be utilized; however, not more than 60 gallons of flammable or 120 gallons of combustible materials may be stored in any one storage cabinet. Not more than three storage cabinets may be present in a single storage area.

An example of a metal storage cabinet is as follows as cited in 1910.106(d)(3)(ii)(a):

Metal cabinets constructed in the following manner shall be deemed to be in compliance. The bottom, top, door, and sides of cabinet shall be at least No. 18 gauge sheet iron and double walled with 1 ½- inch air space. Joints shall be riveted, welded or made tight by some equally effective means. The door shall be provided with a three-point lock, and the door sill shall be raised at least 2 inches above the bottom of the cabinet.

The Town of Rocky Hill has multiple flammable cabinets located throughout the Highway and Parks Departments and also in the Town Hall Facilities main custodial storage closet off of the gym. These cabinets house many highly flammable materials including: compressed gases, paint, aerosols, degreasers, etc...

A list of products for each department with a flashpoint less than or equal to 100 degrees Fahrenheit, thus highly flammable, is listed in the SDS book at each area. A flammables list is also in Appendix D of this program. Flammables should be kept clear of all heat sources and spark-generating operations.

Carcinogens

A carcinogen is a substance or a mixture of substances which induce cancer or increase its incidence. For the purpose of classification, substances are allocated to one of two categories based on strength of evidence and additional weight of evidence considerations. In certain instances, route-specific classification may be warranted.

Category 1: Known or presumed human carcinogens, the classification of a substance as a Category 1 carcinogen is done on the basis of epidemiological and/or animal data. This

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classification is further distinguished on the basis of whether the evidence for classification is largely from human data (Category 1A) or from animal data (Category 1B):

Category 1A: Known to have carcinogenic potential for humans. Classification in this category is largely based on human evidence.

Category 1B: Presumed to have carcinogenic potential for humans. Classification in this category is largely based on animal evidence.

Category 2: Suspected human carcinogens, the classification of a substance in Category 2 is done on the basis of evidence obtained from human and/or animal studies, but which is not sufficiently convincing to place the substance in Category 1A or B. This classification is based on strength of evidence together with weight of evidence considerations. Such evidence may be from either limited evidence of carcinogenicity in human studies or from limited evidence of carcinogenicity in animal studies.

The following are recognized sources for establishing a substance as a carcinogen or potential carcinogen for hazard communication purposes:

- National Toxicology Program (NTP), “Report on Carcinogens” (latest edition);
- International Agency for Research on Cancer (IARC) “Monographs on the Evaluation of Carcinogenic Risks to Humans” (latest editions); and
- Where OSHA has included cancer as a health hazard to be considered by classifiers for a chemical covered by 29 CFR part 1910, Subpart Z, Toxic and Hazardous Substances, chemical manufacturers, importers, and employers shall classify the chemical as a carcinogen.

One should always consult the SDS before handling a carcinogen.

A list of products that, according to their SDS, contain an ingredient determined to be a possible or confirmed carcinogen is listed in the SDS books and Appendix E of this program. These products shall be used with caution and proper personal protective equipment worn as listed by the SDS.

It should be noted that used motor oils and diesel exhaust are both suspect human carcinogens. Neither of these chemicals may be on the carcinogen list because the manufactures may not have updated the SDS to include what happens to the chemicals once they are used as the manufacturer has intended. It is therefore imperative that employees know these hazards exist and take measures to protect themselves. Using latex or nitrile gloves when handling used motor oil will prevent the absorption of the used motor oil into employee’s skin, thus reducing (if not eliminating) this exposure.

Reactive Chemicals

Chemicals have the ability to react when exposed to other chemicals or certain physical conditions. Reactivity hazards present serious, and sometimes catastrophic danger to workers when the hazard is not thoroughly understood and controlled. Hazardous releases have resulted in fires, explosions, toxic, and/or high-energy events when chemical reactions have gone astray.

Highly reactive chemicals that the employees utilize include spray paints and compressed gases. These should be kept away from heat sources and not stored in direct sunlight.

Employees should consult SDS before handling highly reactive chemicals. A list of reactive chemicals can be found in Appendix F at the end of this program, as well as for each area in the SDS books.

High Health Hazards (NFPA/HMIS H=3 or 4)

The NFPA and HMIS labeling systems present rank number 3 or 4 in their “health” assessment system to be extremely dangerous to health or deadly in certain exposure scenarios. Chemicals assigned this hazard according to the SDS (or older MSDS) are provided in Appendix G. These chemicals may include either short term or long term hazards.

Parks Department Hazards

Parks Department employees are exposed to a variety of hazardous materials. These chemicals pose a wide range of health and physical hazards. While working in the garage, tasks that introduce hazards may include welding, painting, and vehicle/ equipment maintenance. The duration of exposure to certain hazards, as well as the environment worked in, may introduce unanticipated hazards.

Some common hazardous chemicals are listed below (this list is not inclusive of all hazards; it merely highlights some common hazards):

Welding Fumes – Toxic metal fumes produced during welding operations. The type of hazardous fume is going to be dependent upon the metal welded on as well as the type of rod or wire. Common fumes produced are hexavalent chromium (high in stainless steel), aluminum, and zinc oxides. Once inhaled, fumes can cause short and long term health effects. Short term effects of inhaling fumes are coughing, eye and nose irritation, and inflammation of the lungs. Long term effects may be chronic lung problems, nasal and sinus cancers, and kidney or liver damage. Employees should ensure that adequate ventilation in the breathing zone is maintained while welding. Other controls to minimize the inhalation of fumes may include wearing proper PPE such as respirators and employing safe work practices.

Spray Paint – Spray paints may be used for line/turf striping, equipment finishing or any building projects. Potential short term health effects when using spray paints include irritation and/or burns to the skin, eyes, nose, throat and lungs. Long term health effects that can result from repeated

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over exposure are occupational asthma, lung cancer, reproductive and kidney or liver damage. Prolonged over exposure of inhalation of paints can also result in brain damage. Users should always ensure adequate ventilation in the breathing zone before use. It is important to wear proper PPE and perform safe work practices while spray painting.

Used Motor Oil – Motor oil picks up variety of hazardous contaminants when used in engines and transmissions. These contaminants include lead, cadmium, chromium, arsenic, and benzene. While performing maintenance on vehicles, employees are at risk of health effects such as skin and eye irritation. Frequent and prolonged contact with used motor oil may cause dermatitis and other skin disorders, including skin cancer. PPE such as gloves, eye wear, and proper clothing shall be worn at all times to prevent exposure. Hand washing should also be conducted after accidental skin contact.

Degreasers/ Solvents – Used for cleaning and degreasing parts and equipment, these products are used on a daily basis. Exposure to such chemicals can vary depending on work conditions and practices. Exposure to the skin can cause irritation, cracking, drying, reddening and blistering of the affected area. Overexposure, when inhaled, can lead to nausea, dizziness, and potentially unconsciousness. Long term exposure can be toxic to the liver and kidneys, as well as cause cardiovascular, respiratory, and nervous system damage. PPE such as gloves, eye wear, and proper clothing/ uniform shall be worn at all times to prevent exposure. Additionally, all parts washers shall remain closed at all times when not in use.

Carbon Monoxide (CO) – A deadly, colorless, odorless, poisonous gas. Carbon monoxide is produced by the incomplete burning of fuel. Equipment powered by combustion engines, like cars, mowers, and even power washers all produce CO. Initial symptoms of CO poisoning include headache, fatigue, shortness of breath and nausea. High levels of poisoning result in more severe symptoms including vomiting, mental confusion, loss of muscular coordination and consciousness, and ultimately death. Safe work practices shall be performed at all times to prevent exposure to carbon monoxide. Maintaining safe distance from exhaust systems of vehicles and also minimizing the amount of indoor operation of such equipment is essential.

Diesel Exhaust – A mixture of gases and particulates produced during the combustion of diesel fuel that employees may be exposed to while vehicles are running indoors. Inhalation and short term exposure to high concentrations of diesel exhaust can cause headache, dizziness, and irritation of the eyes, nose and throat. Employees with prolonged exposure can increase their risk of cardiovascular and respiratory disease, and lung cancer. The ventilation system shall be used when there is a threat of exhaust accumulation. All other safety measures shall be utilized to prevent inhalation, such as minimizing the amount of indoor operation of equipment running on diesel fuel.

Compressed Gases – Used for welding and operating equipment. Compressed gases are hazardous because of the high pressures inside the cylinders. Gas can be released deliberately by opening the valve, or accidentally from a broken or leaking valve. Damaged cylinders can become uncontrolled

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rockets and cause severe injury and damage. Depending on the gas, they may be flammable (i.e. acetylene and propane) or oxidizing (oxygen). Compressed gas cylinders should be cared for and stored properly pending the contents; such storage includes securing cylinders and keeping them away from equipment that may disturb them. Safety measure and PPE requirements shall be followed while handling compressed gases.

Relevant protective equipment (respirators, gloves, eye wear etc.) shall be worn at all times. In the event of exposure to a chemical it is important to contact a Department Director or Supervisor immediately.

Highway and Transfer Station Hazards

Highway and Transfer Station employee's tasks regularly include the repair and maintenance of roads and sidewalks, vehicle maintenance repair, town debris maintenance, and other roadside tasks. Jobs range from street paving and crack sealing to culvert management and chipper operations. This is not meant to be an exhaustive list, rather to indicate the range of types of tasks this department may perform

Hazardous chemicals that the Highway and Sanitation employees are commonly exposed to during every day and non-routine tasks are listed below (this list is not an all-inclusive list and does not include all of the hazards present):

Silica – One of the most common naturally occurring elements on the planet, examples of silica are sand and quartz, which are regularly used in road maintenance and repair. Silica is generally not harmful unless silica dusts are produced through processes such as commercial sweeping (riding sweepers), blasting, cutting, drilling, and grinding. Other silica containing materials include concrete, brick, asphalt, stone, mortar, tile, and drywall. Prolonged inhaling of silica dusts can cause Silicosis, lung cancer, and kidney disease. Preventative measures (i.e. PPE, ventilation, wet methods) from silica inhalation shall be practiced during relevant job tasks.

Gasoline – Used to fuel many vehicles and equipment by Highway employees, gasoline is highly flammable and vaporous. Gasoline can irritate the nose and throat if inhaled and cause headache, nausea, and confusion. Long-term exposure to gasoline can cause dry, red, cracked skin, and is a possible carcinogen. When handling gasoline employees should be in an environment with adequate ventilation. Appropriate PPE may be worn to prevent exposure. Due to the high volume of fuel at the fuel island, employees should ensure there is no smoking or spark generation at the pumps, and ensure access to the emergency shut off is maintained free and clear (shut off next to main door entrance to garage).

Carbon Monoxide (CO) – A deadly, colorless, odorless, poisonous gas. Carbon monoxide is produced by the incomplete burning of fuel. Equipment powered by combustion engines, such as cars, mowers, and even power washers all produce CO. Initial symptoms of CO poisoning may include headache, fatigue, shortness of breath and nausea. High levels of poisoning results in more severe symptoms, including vomiting, mental confusion, loss of muscular coordination and

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consciousness, and ultimately death. Operation of equipment should be in a ventilated environment to prevent inhalation of CO. Relevant PPE should be worn when CO inhalation is a threat.

Used Antifreeze – Used as an engine coolant, de-icing solution, and solvent, antifreeze is generally in liquid form. Exposure to humans by ingestion can lead to vomiting, drowsiness, coma, respiratory failure, and gastrointestinal upset. Used antifreeze vapors may also be harmful if inhaled. Adequate ventilation and required PPE should be used based upon the conditions under which used antifreeze is being handled.

Used Fluorescent Lights – Contains the hazardous metal mercury. If not disposed of correctly, lights can cause adverse health effects if the bulb is damaged. Signs of mercury poisoning can include tremors, impaired memory, skin irritation, chest discomfort, and difficulty breathing. Discarded light tubes housed at the Sanitation department shall be protected from breakage.

Hydrogen Sulfide – Created naturally from decaying organic matter and released from sewage sludge. Hydrogen sulfide may be detected when accessing manholes or catch basins. Hydrogen sulfide is a colorless, corrosive, and highly toxic gas that has an odor of rotten eggs at lower concentrations; at higher concentrations, it will knock out the sense of smell. Symptoms of exposure include irritation to the eyes and skin, headache, dizziness, nausea, and breathing discomfort. Overexposure can lead to death within minutes. When entering any spaces where hydrogen sulfide has been generated, it is imperative to test and ventilate the area. Other controls such as appropriate PPE use shall be enforced to prevent exposure.

Methane – A colorless, odorless, flammable gas that is produced by the decomposition of organic matter and regularly detected in confined spaces, dumps, and landfills. Methane gas displaces oxygen causing suffocation and loss of consciousness; it can also cause headaches, dizziness, weakness, nausea, vomiting, and loss of coordination. Appropriate testing and exhaust ventilation along with other controls should be implemented to keep exposure below limits. Other suitable controls and PPE gear should be utilized when methane may pose a threat.

Welding Fumes – Toxic metal fumes produced during welding operations. The type of hazardous fume is going to be dependent upon the metal welded on, as well as the type of rod or wire. Common fumes produced are hexavalent chromium (high in stainless steel), aluminum, and zinc oxides. Once inhaled, fumes can cause short and long term health effects. Short term effects of inhaling fumes are coughing, eye and nose irritation, and inflammation of the lungs. Long term effects may be chronic lung problems, nasal and sinus cancers, and kidney or liver damage. Employees should ensure that adequate ventilation in the breathing zone is maintained while welding. Other controls to minimize the inhalation of fumes may include wearing proper PPE such as respirators, and employing safe work practices.

Spray Paint – Spray paints may be used for line/turf striping, equipment finishing, or any building projects. Potential short term health effects when using spray paints may include irritation and/or burns to the skin, eyes, nose, throat, and lungs. Long term health effects that can result from

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repeated over exposure are occupational asthma, lung cancer, reproductive damage, kidney damage, or liver damage. Prolonged over exposure of inhalation of paints can also result in brain damage. Users should always ensure adequate ventilation in the breathing zone before use. It is important to wear proper PPE and perform safe work practices while spray painting.

Used Motor Oil – Motor oil picks up variety of hazardous contaminants when used in engines and transmissions. These contaminants include lead, cadmium, chromium, arsenic, and benzene. While performing maintenance on vehicles, employees are at risk of health effects such as skin and eye irritation. Frequent and prolonged contact with used motor oil may cause dermatitis and other skin disorders, including skin cancer. PPE such as gloves, eye wear, and proper clothing shall be worn at all times to prevent exposure. Hand washing should also be conducted after accidental skin contact.

Degreasers/ Solvents – Used for cleaning and degreasing parts and equipment, these products are used on a daily basis. Exposure to such chemicals can vary depending on work conditions and practices. Exposure to the skin can cause irritation, cracking, drying, reddening and blistering of the affected area. Overexposure, when inhaled, can lead to nausea, dizziness, and potentially unconsciousness. Long term exposure can be toxic to the liver and kidneys, as well as cause cardiovascular, respiratory, and nervous system damage. PPE such as gloves, eye wear, and correct uniform, shall be worn at all times to prevent exposure. Additionally, all parts washers shall remain closed at all times when not in use.

Diesel Exhaust – A mixture of gases and particulates produced during the combustion of diesel fuel that employees may be exposed to while vehicles are running indoors. Inhalation and short term exposure to high concentrations of diesel exhaust can cause headache, dizziness, and irritation of the eyes, nose and throat. Employees with prolonged exposure can increase their risk of cardiovascular and respiratory disease, and lung cancer. The ventilation system shall be used when there is a threat of exhaust accumulation. All other safety measures shall be utilized to prevent inhalation, such as minimizing the amount of indoor operation of equipment running on diesel fuel.

Compressed Gases – Used for welding and operating equipment. Compressed gases are hazardous because of the high pressures inside the cylinders. Gas can be released deliberately by opening the valve, or accidentally from a broken or leaking valve. Damaged cylinders can become uncontrolled rockets and cause severe injury and damage. Depending on the gas, they may be flammable (i.e. acetylene and propane) or oxidizing (oxygen). Compressed gas cylinders should be cared for and stored properly pending the contents; such storage includes securing cylinders and keeping them away from equipment that may disturb them. Safety measures and PPE requirements shall be followed while handling compressed gases.

When conducting job tasks, it is important to take all safety precautions which include wearing respirators, gloves, and all relevant PPE. Employees shall follow all safety rules and in the event of an emergency contact a Department Head or Supervisor straightaway.

Facilities Management and Custodial Hazards

Common hazards associated with the Facilities Department include cleaning chemicals used for daily custodial tasks. Biological hazards are possible occurrences and should be handled according to the Town of Rocky Hill's Bloodborne Pathogens Program. Other hazards may include the following.

Asbestos – A group of naturally occurring mineral fibers which are known for their high tensile strength and insulating properties. Asbestos can be found when employees are cutting pipes and other construction products. Asbestos may also be found in building products installed before 1980 such as, but not limited to, floor tile and mastic, wall plaster, sheetrock, ceiling tiles, and spray on insulation. Once fibers become airborne and inhaled they will be trapped in the lungs and pose a great health threat. Exposure can change the lining of the chest cavity, asbestosis, mesothelioma, and put employees at risk of lung cancer. A hazard assessment may be conducted prior to working with materials that might pose an asbestos hazard to ensure workers are equipped with the best possible safety measures. Rocky Hill is in the process of identifying areas in town buildings that contain asbestos. Until an official determination is made, all building material constructed, installed or renovated prior to 1980 shall be presumed to have asbestos and employees shall not disturb the material. In case of accidental disturbance, the area shall be cordoned off and the Department Director notified.

Bleach – Used routinely for cleaning and disinfecting by Facilities employees. Bleach exposure may cause irritation of the mouth, lungs, eyes, and skin. Inhalation can also aggravate pre-existing conditions such as Asthma or other breathing issues. Bleach is a reactive chemical that when mixed with other cleaners may cause toxic gases. Toxic gases, such as chlorine gas, can cause identical symptoms along with chest pains, vomiting, pneumonia, and possible death. Adequate ventilation and proper PPE should be worn during usage.

Used Fluorescent Lights – Contains the hazardous metal mercury. If not disposed of correctly, lights can cause adverse health effects if the bulb is damaged. Signs of mercury poisoning can include tremors, impaired memory, skin irritation, chest discomfort, and difficulty breathing. Discarded light tubes awaiting proper disposal shall be protected from breakage.

All appropriate PPE should be worn and safe work practices performed at all times while conducting inspections, maintenance repairs, and testing. If an emergency occurs, inform the Department Director or Supervisor as soon as possible.

Outdoor and High School Pools Hazards

Rocky Hill Employees maintaining town pools handle hazardous and corrosive chemicals daily. These chemicals may range from treating pool water to biological contaminate clean up. In the event of a biological incident, employees should refer to and follow the Bloodborne Pathogens Program procedures. Other routine duties can include but are not limited to:

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Soda Ash – May be used to raise water pH. Soda Ash (Sodium Carbonate) dust, if inhaled, can cause burning pain within the respiratory tract. Coughing, wheezing, and shortness of breath are symptoms of inhalation. Repeated exposure may also cause tooth erosion, nasal congestion, nasal damage, bronchitis, and/or chest pains. Sodium Carbonate is also an eye and skin irritant causing swelling, blisters, and burns to exposed skin. Symptoms associated with eye contact are conjunctival edema, swelling, and may destroy cornea. PPE including eye protection and proper gloves should be worn in conjunction with adequate ventilation.

Chlorine – Used in pools for bacteria control and is corrosive. Signs would include burning pain, redness, and possible blisters. Inhalation symptoms can appear immediately or delayed pending concentrations. Difficulty breathing, burning sensation of the nose and throat, chest tightness, and pulmonary edema are signs of inhalation. Contact with eyes will cause severe burning and may lead to cornea damage. Eye wash stations should be available in immediate areas of use. Ventilation, eye protection, and proper gloves are minimal P.P.E suggestions when Chlorine is handled.

pH Minus – Also known as Sodium Bisulfate, is a corrosive chemical used to lower the “potential Hydrogen” in pool water. Sodium bisulfate is an acid salt formed by partial neutralization of sulfuric acid by an equivalent of sodium base, typically either in the form of sodium hydroxide or sodium chloride. Skin contact may cause burns, blisters, and severe irritation. Contact with eyes can cause blindness, severe irritation, or corneal damage. Entry to the respiratory system can lead to irritation, causing coughing and shortness of breath. Follow manufacture’s guidelines for proper handling and PPE when using.

Bleach – Used routinely for cleaning and disinfecting around pool decks and during biological incidents. Bleach exposure may cause irritation of the mouth, lungs, eyes, and skin. Inhalation can also aggravate pre-existing conditions such as Asthma or other breathing issues. Bleach is a reactive chemical that when mixed with other cleaners, may cause toxic gases. Toxic gases like chlorine gas can cause identical symptoms along with chest pains, vomiting, pneumonia, and possible death. Adequate ventilation and proper PPE should be worn during usage.

General Safety Guidelines

The following are general safety guidelines when handling hazardous chemicals. These are minimal guidelines and are not the only safety precautions to follow. One should always consult the SDS before working with a chemical to determine the appropriate means of personal protective equipment.

Appropriate gloves should be worn when handling hazardous materials.

Safety glasses or goggles should always be worn when handling hazardous materials.

Additional protective clothing should be worn if the possibility of skin contact is likely.

Emergency Spills/ Exposure:

In the event of a chemical spill or exposure, employees should first notify appropriate responders—those trained in specific response. Immediate measures should be followed as outlined on the SDS. General response is typically to flush eyes out if there is eye exposure, rinse off skin for skin exposure, and move to fresh air for an inhalation exposure. However, these are very basic responses and the SDS should be consulted before action. For example, for accidental ingestion, inducing vomiting may not be the proper response due to aspiration hazards. Hence, consulting a professional along with the SDS is vital.

Many facilities are equipped with multiple spill kits, eye wash stations, and first aid kits in the event of an emergency. Refer to Table 1 for locations and information. In the event of a fire emergency, fire extinguishers are throughout the facility and shall only be used by trained employees.

The spill kits house material needed to prevent material from spreading.

Any spills of concern should be reported immediately to the Fire Department (911).

Additionally, should the Connecticut DEEP need to be contacted, they may be contacted at 860-424-3000.

Employee Information and Training:

It is the policy of The Town of Rocky Hill to provide an informational training program to all employees with the implementation of this program, within thirty days for new-hire employees, and annually thereafter. Workers, such as office workers, who encounter hazardous chemicals only in non-routine, isolated instances do not need to be included in this training.

Re-training or additional training may also occur if the contents of the Written Hazard Communication Program changes in a manner that would impact employee knowledge, safety, or work procedures; if new hazardous chemicals are added to the work area; or if new tasks are added to the job function which could result in a change to exposure to hazardous chemicals.

All Hazard Communication training must be documented to show, as a minimum:

- Date training was given
- Name of trainee
- Name and title of trainer
- Summary of training contents

Documentation can be found with the Department Directors/ Director Human Resource and Legal Compliance.

The information and training program will be instructed on site and will explain in detail the following:

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- Explanation of employee rights;
- Location and availability of the Written Hazard Communication Program and description of its contents;
- Safety Data Sheets – how to read them (contents) and how to access them ;
- Labels and other forms of warning – explanation of GHS labels; labeling requirements; secondary container labels; signs used in work areas and bulk storage areas; specific area signs should be reviewed by leadership;
- Chemical Hazards – physical hazards and health hazards;
- Operations in work area where hazardous chemicals may be present;
- Methods to inform employees of hazards of chemicals including hazards of non-routine tasks;
- Measures used to protect against chemical exposures;
- Inventory list –where they can access the area inventory list;
- The requirements of 1910.1200; and
- Methods and observations that may be used to detect the presence or release of hazardous chemicals in the work area.

Non-Routine Tasks:

Non-routine tasks (those that are not a normal or routine part of an employee’s job function and for which a procedure does not exist) should be explained to the employee by the Department Director or designee. The explanation should include any hazards related to chemicals which may be present in the work area or used in the task. Prior to assigning a non-routine task, area leadership should ensure that the potential hazards have been appropriately identified.

Non-routine tasks may include unplanned cleaning projects or unplanned maintenance work. Prior to starting work, employees need to be trained and informed of the chemical hazards they may encounter completing non-routine tasks. Training should emphasize the potential hazards of working with unfamiliar substances or in unfamiliar conditions, what PPE is required, first aid, emergency procedures, and any physical and health hazards, etc.

Multi-Employer Workplaces and Outside Contractors:

When a work tasks requires multi-employers and/ or an outside contractor, it is the responsibility of the Department Director to inform them of the hazardous chemicals they may be exposed to. It is then the employer or the contractor’s supervisor’s responsibility to communicate this information to all their employees who might be impacted. The procedure for informing will include the following:

- Making the hazardous chemicals inventory of any designated work area where contract work is being performed available to employer.

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- Making the SDS of the identified hazardous chemicals and labeling system in a designated work area available to the employer.
- Making the contractor aware of the appropriate protective measures taken by Rocky Hill Parks and Recreation employees in a designated work area.

It is also the responsibility of the Department Director or his/her designee to obtain copies of the SDS for any chemicals the outside worker will be bringing to a Rocky Hill municipal location. These should be provided by the contractor. If there is potential for a Rocky Hill employee to be exposed to these chemicals, the Department Director would be first contact if an emergency occurred.

Rocky Hill will ask all outside workers to take all containers of unused chemicals with them at the end of their work unless otherwise agreed upon. It should be determined prior to the start of any contracted work, who will be responsible to dispose of the waste. Additionally, the proper disposal should be determined for any waste generated as a result of the work. If The Town of Rocky Hill is responsible for the generated waste, the contractor must provide the SDS of any chemicals present in the waste.

🔍 Regulations (Standards - 29 CFR) - Table of Contents

● Part Number:	1910
● Part Title:	Occupational Safety and Health Standards
● Subpart:	Z
● Subpart Title:	Toxic and Hazardous Substances
● Standard Number:	1910.1200
● Title:	Hazard Communication.
● Appendix:	A, B, C, D, E, F
● GPO Source:	e-CFR

Note: The following text for 1910.1200 has been updated to align with the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Revision 3, issued in the Federal Register, March 26, 2012. This rule became effective May 25, 2012.

Also, the Hazard Communication page, on OSHA.gov, includes downloadable versions of the revised 1910.1200 Final Rule and appendices, updated to align with the GHS; a comparison of the Hazard Communication Standard, issued in 1994 (HazCom 1994), with the revised Hazard Communication Final Rule issued in 2012 (HazCom 2012); frequently asked questions on the revisions; and new guidance materials on the revisions. The page also contains the full regulatory text and appendices of HazCom 1994.

1910.1200(a)

Purpose.

1910.1200(a)(1)

The purpose of this section is to ensure that the hazards of all chemicals produced or imported are classified, and that information concerning the classified hazards is transmitted to employers and employees. The requirements of this section are intended to be consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Revision 3. The transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, safety data sheets and employee training.

1910.1200(a)(2)

This occupational safety and health standard is intended to address comprehensively the issue of classifying the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, and to preempt any legislative or regulatory enactments of a state, or political subdivision of a state, pertaining to this subject. Classifying the potential hazards of chemicals and communicating information concerning hazards and appropriate protective measures to employees, may include, for example, but is not limited to, provisions for: developing and maintaining a written hazard communication program for the workplace, including lists of hazardous chemicals present; labeling of containers of chemicals in the workplace, as well as of containers of chemicals being shipped to other workplaces; preparation and distribution of safety data sheets to employees and downstream employers; and development and implementation of employee training programs regarding hazards of chemicals and protective measures. Under section 18 of the Act, no state or political subdivision of a state may adopt or enforce any requirement relating to the issue addressed by this Federal standard, except pursuant to a Federally-approved state plan.

1910.1200(b)

Scope and application.

1910.1200(b)(1)

This section requires chemical manufacturers or importers to classify the hazards of chemicals which they produce or import, and all employers to provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, safety data sheets, and information and training. In addition, this section requires distributors to transmit the required information to employers. (Employers who do not produce or import chemicals need only focus on those parts of this rule that deal with establishing a workplace program and communicating information to their workers.)

1910.1200(b)(2)

This section applies to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency.

1910.1200(b)(3)

This section applies to laboratories only as follows:

1910.1200(b)(3)(i)

Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced;

1910.1200(b)(3)(ii)

Employers shall maintain any safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible during each workshift to laboratory employees when they are in their work areas;

1910.1200(b)(3)(iii)

Employers shall ensure that laboratory employees are provided information and training in accordance with paragraph (h) of this section, except for the location and availability of the written hazard communication program under paragraph (h)(2)(iii) of this section; and,

1910.1200(b)(3)(iv)

Laboratory employers that ship hazardous chemicals are considered to be either a chemical manufacturer or a distributor under this rule, and thus must ensure that any containers of hazardous chemicals leaving the laboratory are labeled in accordance with paragraph (f) of this section, and that a safety data sheet is provided to distributors and other employers in accordance with paragraphs (g)(6) and (g)(7) of this section.

1910.1200(b)(4)

In work operations where employees only handle chemicals in sealed containers which are not opened under normal conditions of use (such as are found in marine cargo handling, warehousing, or retail sales), this section applies to these operations only as follows:

1910.1200(b)(4)(i)

Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced;

1910.1200(b)(4)(ii)

Employers shall maintain copies of any safety data sheets that are received with incoming shipments of the sealed containers of hazardous chemicals, shall obtain a safety data sheet as soon as possible for sealed containers of hazardous chemicals received without a safety data sheet if an employee requests the safety data sheet, and shall ensure that the safety data sheets are readily accessible during each work shift to employees when they are in their work area(s); and,

1910.1200(b)(4)(iii)

Employers shall ensure that employees are provided with information and training in accordance with paragraph (h) of this section (except for the location and availability of the written hazard communication program under paragraph (h)(2)(iii) of this section), to the extent necessary to protect them in the event of a spill or leak of a hazardous chemical from a sealed container.

1910.1200(b)(5)

This section does not require labeling of the following chemicals:

1910.1200(b)(5)(i)

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;

1910.1200(b)(5)(ii)

Any chemical substance or mixture as such terms are defined in the Toxic Substances Control Act (15 U.S.C. 2601 *et seq.*), when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency;

1910.1200(b)(5)(iii)

Any food, food additive, color additive, drug, cosmetic, or medical or veterinary device or product, 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.*) or the Virus-Serum-Toxin Act of 1913 (21 U.S.C. 151 *et seq.*), and regulations issued under those Acts, when they are subject to the labeling requirements under those Acts by either the Food and Drug Administration or the Department of Agriculture;

1910.1200(b)(5)(iv)

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, Firearms and Explosives;

1910.1200(b)(5)(v)

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; and,

1910.1200(b)(5)(vi)

Agricultural or vegetable seed treated with pesticides and labeled in accordance with the Federal Seed Act (7 U.S.C. 1551 *et seq.*) and the labeling regulations issued under that Act by the Department of Agriculture.

1910.1200(b)(6)

This section does not apply to:

1910.1200(b)(6)(i)

Any hazardous waste as such term is defined by 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.*), when subject to regulations issued under that Act by the Environmental Protection Agency;

1910.1200(b)(6)(ii)

Any hazardous substance as such term is defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. 9601 *et seq.*) when the hazardous substance is the focus of remedial or removal action being conducted under CERCLA in accordance with Environmental Protection Agency regulations.

1910.1200(b)(6)(iii)

Tobacco or tobacco products;

1910.1200(b)(6)(iv)

Wood or wood products, including lumber which will not be processed, where the chemical manufacturer or importer can establish that the only hazard they pose to employees is the potential for flammability or combustibility (wood or wood products which have been treated with a hazardous chemical covered by this standard, and wood which may be subsequently sawed or cut, generating dust, are not exempted);

1910.1200(b)(6)(v)

Articles (as that term is defined in paragraph (c) of this section);

1910.1200(b)(6)(vi)

Food or alcoholic beverages which are sold, used, or prepared in a retail establishment (such as a grocery store, restaurant, or drinking place), and foods intended for personal consumption by employees while in the workplace;

1910.1200(b)(6)(vii)

Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 *et seq.*), when it is in solid, final form for direct administration to the patient (*e.g.*, tablets or pills); drugs which are packaged by the chemical manufacturer for sale to consumers in a retail establishment (*e.g.*, over-the-counter drugs); and drugs intended for personal consumption by employees while in the workplace (*e.g.*, first aid supplies);

1910.1200(b)(6)(viii)

Cosmetics which are packaged for sale to consumers in a retail establishment, and cosmetics intended for personal consumption by employees while in the workplace;

1910.1200(b)(6)(ix)

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, where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended;

1910.1200(b)(6)(x)

Nuisance particulates where the chemical manufacturer or importer can establish that they do not pose any physical or health hazard covered under this section;

1910.1200(b)(6)(xi)

Ionizing and nonionizing radiation; and,

1910.1200(b)(6)(xii)

Biological hazards.

1910.1200(c)

Definitions. Article means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, *e.g.*, minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Chemical means any substance, or mixture of substances.

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 that will clearly identify the chemical for the purpose of conducting a hazard classification.

Classification means to identify the relevant data regarding the hazards of a chemical; review those data to ascertain the hazards associated with the chemical; and decide whether the chemical will be classified as hazardous according to the definition of hazardous chemical in this section. 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.

Commercial account means an arrangement whereby a retail distributor sells hazardous chemicals to an employer, generally in large quantities over time and/or at costs that are below the regular retail price.

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.

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 section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

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.

Exposure or exposed means that 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.)

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 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.

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 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 means the specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

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

Physical hazard means 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 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, blend, extract, generate, emit, or repackage.

Product identifier means 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.

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

Safety data sheet (SDS) means written or printed material concerning a hazardous chemical that is prepared in accordance with paragraph (g) of this section.

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.

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.

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.

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. Appendix E to §1910.1200 Definition of Trade Secret, sets out the criteria to be used in evaluating trade secrets.

Use means to package, handle, react, emit, extract, generate as a byproduct, or transfer.

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

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

1910.1200(d)

Hazard classification.

1910.1200(d)(1)

Chemical manufacturers and importers shall evaluate chemicals produced in their workplaces or imported by them to classify the chemicals in accordance with this section. For each chemical, the chemical manufacturer or importer shall determine the hazard classes, and, where appropriate, the category of each class that apply to the chemical being classified. Employers are not required to classify chemicals unless they choose not to rely on the classification performed by the chemical manufacturer or importer for the chemical to satisfy this requirement.

1910.1200(d)(2)

Chemical manufacturers, importers or employers classifying chemicals shall identify and consider the full range of available scientific literature and other evidence concerning the potential hazards. There is no requirement to test the chemical to determine how to classify its hazards. Appendix A to § 1910.1200 shall be consulted for classification of health hazards, and Appendix B to § 1910.1200 shall be consulted for the classification of physical hazards.

1910.1200(d)(3)

Mixtures.

1910.1200(d)(3)(i)

Chemical manufacturers, importers, or employers evaluating chemicals shall follow the procedures described in Appendices A and B to Sec. 1910.1200 to classify the hazards of the chemicals, including determinations regarding when mixtures of the classified chemicals are covered by this section.

1910.1200(d)(3)(ii)

When classifying mixtures they produce or import, chemical manufacturers and importers of mixtures may rely on the information provided on the current safety data sheets of the individual ingredients, except where the chemical manufacturer or importer knows, or in the exercise of reasonable diligence should know, that the safety data sheet misstates or omits information required by this section.

1910.1200(e)

Written hazard communication program.

1910.1200(e)(1)

Employers shall develop, implement, and maintain at each workplace, a written hazard communication program which at least describes how the criteria specified in paragraphs (f), (g), and (h) of this section for labels and other forms of warning, safety data sheets, and employee information and training will be met, and which also includes the following:

1910.1200(e)(1)(i)

A list of the hazardous chemicals known to be present using a product identifier that is referenced on the appropriate safety data sheet (the list may be compiled for the workplace as a whole or for individual work areas); and,

1910.1200(e)(1)(ii)

The methods the employer will use to inform employees of the hazards of non-routine tasks (for example, the cleaning of reactor vessels), and the hazards associated with chemicals contained in unlabeled pipes in their work areas.

1910.1200(e)(2)

Multi-employer workplaces. Employers who produce, use, or store hazardous chemicals at a workplace in such a way that the employees of other employer(s) may be exposed (for example, employees of a construction contractor working on-site) shall additionally ensure that the hazard communication programs developed and implemented under this paragraph (e) include the following:

1910.1200(e)(2)(i)

The methods the employer will use to provide the other employer(s) on-site access to safety data sheets for each hazardous chemical the other employer(s) employees may be exposed to while working;

1910.1200(e)(2)(ii)

The methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies; and,

1910.1200(e)(2)(iii)

The methods the employer will use to inform the other employer(s) of the labeling system used in the workplace.

1910.1200(e)(3)

The employer may rely on an existing hazard communication program to comply with these requirements, provided that it meets the criteria established in this paragraph (e).

1910.1200(e)(4)

The employer shall make the written hazard communication program available, upon request, to employees, their designated representatives, the Assistant Secretary and the Director, in accordance with the requirements of 29 CFR 1910.1020 (e).

1910.1200(e)(5)

Where employees must travel between workplaces during a workshift, i.e., their work is carried out at more than one geographical location, the written hazard communication program may be kept at the primary workplace facility.

1910.1200(f)

Labels and other forms of warning—

1910.1200(f)(1)

Labels on shipped containers. The chemical manufacturer, importer, or distributor shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked. Hazards not otherwise classified do not have to be addressed on the container. Where the chemical manufacturer or importer is required to label, tag or mark the following information shall be provided:

1910.1200(f)(1)(i)

Product identifier;

1910.1200(f)(1)(ii)

Signal word;

1910.1200(f)(1)(iii)

Hazard statement(s);

1910.1200(f)(1)(iv)

Pictogram(s);

1910.1200(f)(1)(v)

Precautionary statement(s); and,

1910.1200(f)(1)(vi)

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.

1910.1200(f)(2)

The chemical manufacturer, importer, or distributor shall ensure that the information provided under paragraphs (f)(1)(i) through (v) of this section is in accordance with Appendix C to § 1910.1200, for each hazard class and associated hazard category for the hazardous chemical, prominently displayed, and in English (other languages may also be included if appropriate).

1910.1200(f)(3)

The chemical manufacturer, importer, or distributor shall ensure that the information provided under paragraphs (f)(1)(ii) through (iv) of this section is located together on the label, tag, or mark.

1910.1200(f)(4)

Solid materials.

1910.1200(f)(4)(i)

For solid metal (such as a steel beam or a metal casting), solid wood, or plastic items that are not exempted as articles due to their downstream use, or shipments of whole grain, the required label may be transmitted to the customer at the time of the initial shipment, and need not be included with subsequent shipments to the same employer unless the information on the label changes;

1910.1200(f)(4)(ii)

The label may be transmitted with the initial shipment itself, or with the safety data sheet that is to be provided prior to or at the time of the first shipment; and,

1910.1200(f)(4)(iii)

This exception to requiring labels on every container of hazardous chemicals is only for the solid material itself, and does not apply to hazardous chemicals used in conjunction with, or known to be present with, the material and to which employees handling the items in transit may be exposed (for example, cutting fluids or pesticides in grains).

1910.1200(f)(5)

Chemical manufacturers, importers, or distributors shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked in accordance with this section in a manner which does not conflict with the requirements of the Hazardous Materials Transportation Act (49 U.S.C. 1801 *et seq.*) and regulations issued under that Act by the Department of Transportation.

1910.1200(f)(6)

Workplace labeling. Except as provided in paragraphs (f)(7) and (f)(8) of this section, the employer shall ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with either:

1910.1200(f)(6)(i)

The information specified under paragraphs (f)(1)(i) through (v) of this section for labels on shipped containers; or,

1910.1200(f)(6)(ii)

Product identifier and words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

1910.1200(f)(7)

The employer 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 (f)(6) of this section to be on a label. The employer shall ensure the written materials are readily accessible to the employees in their work area throughout each work shift.

1910.1200(f)(8)

The employer is not required to label portable containers into which hazardous chemicals are transferred from labeled containers, and which are intended only for the immediate use of the employee who performs the transfer. For purposes of this section, drugs which are dispensed by a pharmacy to a health care provider for direct administration to a patient are exempted from labeling.

1910.1200(f)(9)

The employer shall not remove or deface existing labels on incoming containers of hazardous chemicals, unless the container is immediately marked with the required information.

1910.1200(f)(10)

The employer shall ensure that workplace labels or other forms of warning are legible, in English, and prominently displayed on the container, or readily available in the work area throughout each work shift. Employers having employees who speak other languages may add the information in their language to the material presented, as long as the information is presented in English as well.

1910.1200(f)(11)

Chemical manufacturers, importers, distributors, or employers who become newly aware of any significant information regarding the hazards of a chemical shall revise the labels for the chemical within six months of becoming aware of the new information, and shall ensure that labels on containers of hazardous chemicals shipped after that time contain the new information. If the chemical is not currently produced or imported, the chemical manufacturer, importer, distributor, or employer shall add the information to the label before the chemical is shipped or introduced into the workplace again.

1910.1200(g)

Safety data sheets.

1910.1200(g)(1)

Chemical manufacturers and importers shall obtain or develop a safety data sheet for each hazardous chemical they produce or import. Employers shall have a safety data sheet in the workplace for each hazardous chemical which they use.

1910.1200(g)(2)

The chemical manufacturer or importer preparing the safety data sheet shall ensure that it is in English (although the employer may maintain copies in other languages as well), and includes at least the following section numbers and headings, and associated information under each heading, in the order listed (*See Appendix D to § 1910.1200—Safety Data Sheets, for the specific content of each section of the safety data sheet*):

1910.1200(g)(2)(i)

Section 1, Identification;

1910.1200(g)(2)(ii)

Section 2, Hazard(s) identification;

1910.1200(g)(2)(iii)

Section 3, Composition/information on ingredients;

1910.1200(g)(2)(iv)

Section 4, First-aid measures;

1910.1200(g)(2)(v)

Section 5, Fire-fighting measures;

1910.1200(g)(2)(vi)

Section 6, Accidental release measures;

1910.1200(g)(2)(vii)

Section 7, Handling and storage;

1910.1200(g)(2)(viii)

Section 8, Exposure controls/personal protection;

1910.1200(g)(2)(ix)

Section 9, Physical and chemical properties;

1910.1200(g)(2)(x)

Section 10, Stability and reactivity;

1910.1200(g)(2)(xi)

Section 11, Toxicological information;

1910.1200(g)(2)(xii)

Section 12, Ecological information;

1910.1200(g)(2)(xiii)

Section 13, Disposal considerations;

1910.1200(g)(2)(xiv)

Section 14, Transport information;

1910.1200(g)(2)(xv)

Section 15, Regulatory information; and

1910.1200(g)(2)(xvi)

Section 16, Other information, including date of preparation or last revision.

Note 1 to paragraph (g)(2): To be consistent with the GHS, an SDS must also include the headings in paragraphs (g)(2)(xii) through (g)(2)(xv) in order.

Note 2 to paragraph (g)(2): OSHA will not be enforcing information requirements in sections 12 through 15, as these areas are not under its jurisdiction.

1910.1200(g)(3)

If no relevant information is found for any sub-heading within a section on the safety data sheet, the chemical manufacturer, importer or employer preparing the safety data sheet shall mark it to indicate that no applicable information was found.

1910.1200(g)(4)

Where complex mixtures have similar hazards and contents (i.e. the chemical ingredients are essentially the same, but the specific composition varies from mixture to mixture), the chemical manufacturer, importer or employer may prepare one safety data sheet to apply to all of these similar mixtures.

1910.1200(g)(5)

The chemical manufacturer, importer or employer preparing the safety data sheet shall ensure that the information provided accurately reflects the scientific evidence used in making the hazard classification. If the chemical manufacturer, importer or employer preparing the safety data sheet becomes newly aware of any significant information regarding the hazards of a chemical, or ways to protect against the hazards, this new information shall be added to the safety data sheet within three months. If the chemical is not currently being produced or imported, the chemical manufacturer or importer shall add the information to the safety data sheet before the chemical is introduced into the workplace again.

1910.1200(g)(6)(i)

Chemical manufacturers or importers shall ensure that distributors and employers are provided an appropriate safety data sheet with their initial shipment, and with the first shipment after a safety data sheet is updated;

1910.1200(g)(6)(ii)

The chemical manufacturer or importer shall either provide safety data sheets with the shipped containers or send them to the distributor or employer prior to or at the time of the shipment;

1910.1200(g)(6)(iii)

If the safety data sheet is not provided with a shipment that has been labeled as a hazardous chemical, the distributor or employer shall obtain one from the chemical manufacturer or importer as soon as possible; and,

1910.1200(g)(6)(iv)

The chemical manufacturer or importer shall also provide distributors or employers with a safety data sheet upon request.

1910.1200(g)(7)(i)

Distributors shall ensure that safety data sheets, and updated information, are provided to other distributors and employers with their initial shipment and with the first shipment after a safety data sheet is updated;

1910.1200(g)(7)(ii)

The distributor shall either provide safety data sheets with the shipped containers, or send them to the other distributor or employer prior to or at the time of the shipment;

1910.1200(g)(7)(iii)

Retail distributors selling hazardous chemicals to employers having a commercial account shall provide a safety data sheet to such employers upon request, and shall post a sign or otherwise inform them that a safety data sheet is available;

1910.1200(g)(7)(iv)

Wholesale distributors selling hazardous chemicals to employers over-the-counter may also provide safety data sheets upon the request of the employer at the time of the over-the-counter purchase, and shall post a sign or otherwise inform such employers that a safety data sheet is available;

1910.1200(g)(7)(v)

If an employer without a commercial account purchases a hazardous chemical from a retail distributor not required to have safety data sheets on file (i.e., the retail distributor does not have commercial accounts and does not use the materials), the retail distributor shall provide the employer, upon request, with the name, address, and telephone number of the chemical manufacturer, importer, or distributor from which a safety data sheet can be obtained;

1910.1200(g)(7)(vi)

Wholesale distributors shall also provide safety data sheets to employers or other distributors upon request; and,

1910.1200(g)(7)(vii)

Chemical manufacturers, importers, and distributors need not provide safety data sheets to retail distributors that have informed them that the retail distributor does not sell the product to commercial accounts or open the sealed container to use it in their own workplaces.

1910.1200(g)(8)

The employer shall maintain in the workplace copies of the required safety data sheets for each hazardous chemical, and shall ensure that they are readily accessible during each work shift to employees when they are in their work area(s). (Electronic access and other alternatives to maintaining paper copies of the safety data sheets are permitted as long as no barriers to immediate employee access in each workplace are created by such options.)

1910.1200(g)(9)

Where employees must travel between workplaces during a workshift, i.e., their work is carried out at more than one geographical location, the material safety data sheets may be kept at the primary workplace facility. In this situation, the employer shall ensure that employees can immediately obtain the required information in an emergency.

1910.1200(g)(10)

Safety data sheets may be kept in any form, including operating procedures, and may be designed to cover groups of hazardous chemicals in a work area where it may be more appropriate to address the hazards of a process rather than individual hazardous chemicals. However, the employer shall ensure that in all cases the required information is provided for each hazardous chemical, and is readily accessible during each work shift to employees when they are in their work area(s).

1910.1200(g)(11)

Safety data sheets shall also be made readily available, upon request, to designated representatives, the Assistant Secretary, and the Director, in accordance with the requirements of § 1910.1020(e).

1910.1200(h)

Employee information and training.

1910.1200(h)(1)

Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and safety data sheets.

1910.1200(h)(2)

Information. Employees shall be informed of:

1910.1200(h)(2)(i)

The requirements of this section;

1910.1200(h)(2)(ii)

Any operations in their work area where hazardous chemicals are present; and,

1910.1200(h)(2)(iii)

The location and availability of the written hazard communication program, including the required list(s) of hazardous chemicals, and safety data sheets required by this section.

1910.1200(h)(3)

Training. Employee training shall include at least:

1910.1200(h)(3)(i)

Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);

1910.1200(h)(3)(ii)

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;

1910.1200(h)(3)(iii)

The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and,

1910.1200(h)(3)(iv)

The details of the hazard communication program developed by the employer, including an explanation of the labels received on shipped containers and the workplace labeling system used by their employer; the safety data sheet, including the order of information and how employees can obtain and use the appropriate hazard information.

1910.1200(i)

Trade secrets.

1910.1200(i)(1)

The chemical manufacturer, importer, or employer may withhold the specific chemical identity, including the chemical name, other specific identification of a hazardous chemical, or the exact percentage (concentration) of the substance in a mixture, from the safety data sheet, provided that:

1910.1200(i)(1)(i)

The claim that the information withheld is a trade secret can be supported;

1910.1200(i)(1)(ii)

Information contained in the safety data sheet concerning the properties and effects of the hazardous chemical is disclosed;

1910.1200(i)(1)(iii)

The safety data sheet indicates that the specific chemical identity and/or percentage of composition is being withheld as a trade secret; and,

1910.1200(i)(1)(iv)

The specific chemical identity and percentage is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of this paragraph (i).

1910.1200(i)(2)

Where a treating physician or nurse determines that a medical emergency exists and the specific chemical identity and/or specific percentage of composition of a hazardous chemical is necessary for emergency or first-aid treatment, the chemical manufacturer, importer, or employer shall immediately disclose the specific chemical identity or percentage composition of a trade secret chemical to that treating physician or nurse, regardless of the existence of a written statement of need or a confidentiality agreement. The chemical manufacturer, importer, or employer may require a written statement of need and confidentiality agreement, in accordance with the provisions of paragraphs (i)(3) and (4) of this section, as soon as circumstances permit.

1910.1200(i)(3)

In non-emergency situations, a chemical manufacturer, importer, or employer shall, upon request, disclose a specific chemical identity or percentage composition, otherwise permitted to be withheld under paragraph (i)(1) of this section, to a health professional (i.e. physician, industrial hygienist, toxicologist, epidemiologist, or occupational health nurse) providing medical or other occupational health services to exposed employee(s), and to employees or designated representatives, if:

1910.1200(i)(3)(i)

The request is in writing;

1910.1200(i)(3)(ii)

The request describes with reasonable detail one or more of the following occupational health needs for the information:

1910.1200(i)(3)(ii)(A)

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

1910.1200(i)(3)(ii)(B)

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

1910.1200(i)(3)(ii)(C)

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

1910.1200(i)(3)(ii)(D)

To provide medical treatment to exposed employees;

1910.1200(i)(3)(ii)(E)

To select or assess appropriate personal protective equipment for exposed employees;

1910.1200(i)(3)(ii)(F)

To design or assess engineering controls or other protective measures for exposed employees; and,

1910.1200(i)(3)(ii)(G)

To conduct studies to determine the health effects of exposure.

1910.1200(i)(3)(iii)

The request explains in detail why the disclosure of the specific chemical identity or percentage composition is essential and that, in lieu thereof, the disclosure of the following information to the health professional, employee, or designated representative, would not satisfy the purposes described in paragraph (i)(3)(ii) of this section:

1910.1200(i)(3)(iii)(A)

The properties and effects of the chemical;

1910.1200(i)(3)(iii)(B)

Measures for controlling workers' exposure to the chemical;

1910.1200(i)(3)(iii)(C)

Methods of monitoring and analyzing worker exposure to the chemical; and,

1910.1200(i)(3)(iii)(D)

Methods of diagnosing and treating harmful exposures to the chemical;

1910.1200(i)(3)(iv)

The request includes a description of the procedures to be used to maintain the confidentiality of the disclosed information; and,

1910.1200(i)(3)(v)

The health professional, and the employer or contractor of the services of the health professional (i.e. downstream employer, labor organization, or individual employee), employee, or designated representative, agree in a written confidentiality agreement that the health professional, employee, or designated representative, will not use the trade secret information 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 paragraph (i)(6) of this section, except as authorized by the terms of the agreement or by the chemical manufacturer, importer, or employer.

1910.1200(i)(4)

The confidentiality agreement authorized by paragraph (i)(3)(iv) of this section:

1910.1200(i)(4)(i)

May restrict the use of the information to the health purposes indicated in the written statement of need;

1910.1200(i)(4)(ii)

May provide for appropriate legal remedies in the event of a breach of the agreement, including stipulation of a reasonable pre-estimate of likely damages; and,

1910.1200(i)(4)(iii)

May not include requirements for the posting of a penalty bond.

1910.1200(i)(5)

Nothing in this standard is meant to preclude the parties from pursuing non-contractual remedies to the extent permitted by law.

1910.1200(i)(6)

If the health professional, employee, or designated representative receiving the trade secret information decides that there is a need to disclose it to OSHA, the chemical manufacturer, importer, or employer who provided the information shall be informed by the health professional, employee, or designated representative prior to, or at the same time as, such disclosure.

1910.1200(i)(7)

If the chemical manufacturer, importer, or employer denies a written request for disclosure of a specific chemical identity or percentage composition, the denial must:

1910.1200(i)(7)(i)

Be provided to the health professional, employee, or designated representative, within thirty days of the request;

1910.1200(i)(7)(ii)

Be in writing;

1910.1200(i)(7)(iii)

Include evidence to support the claim that the specific chemical identity or percent of composition is a trade secret;

1910.1200(i)(7)(iv)

State the specific reasons why the request is being denied; and,

1910.1200(i)(7)(v)

Explain in detail how alternative information may satisfy the specific medical or occupational health need without revealing the trade secret.

1910.1200(i)(8)

The health professional, employee, or designated representative whose request for information is denied under paragraph (i)(3) of this section may refer the request and the written denial of the request to OSHA for consideration.

1910.1200(i)(9)

When a health professional, employee, or designated representative refers the denial to OSHA under paragraph (i)(8) of this section, OSHA shall consider the evidence to determine if:

1910.1200(i)(9)(i)

The chemical manufacturer, importer, or employer has supported the claim that the specific chemical identity or percentage composition is a trade secret;

1910.1200(i)(9)(ii)

The health professional, employee, or designated representative has supported the claim that there is a medical or occupational health need for the information; and,

1910.1200(i)(9)(iii)

The health professional, employee or designated representative has demonstrated adequate means to protect the confidentiality.

1910.1200(i)(10)(i)

If OSHA determines that the specific chemical identity or percentage composition requested under paragraph (i)(3) of this section is not a "bona fide" trade secret, or that it is a trade secret, but the requesting health professional, employee, or designated representative has a legitimate medical or occupational health need for the information, has executed a written confidentiality agreement, and has shown adequate means to protect the confidentiality of the information, the chemical manufacturer, importer, or employer will be subject to citation by OSHA.

1910.1200(i)(10)(ii)

If a chemical manufacturer, importer, or employer demonstrates to OSHA that the execution of a confidentiality agreement would not provide sufficient protection against the potential harm from the unauthorized disclosure of a trade secret, the Assistant Secretary may issue such orders or impose such additional limitations or conditions upon the disclosure of the requested chemical information as may be appropriate to assure that the occupational health services are provided without an undue risk of harm to the chemical manufacturer, importer, or employer.

1910.1200(i)(11)

If a citation for a failure to release trade secret information is contested by the chemical manufacturer, importer, or employer, the matter will be adjudicated before the Occupational Safety and Health Review Commission in accordance with the Act's enforcement scheme and the applicable Commission rules of procedure. In accordance with the Commission rules, when a chemical manufacturer, importer, or employer continues to withhold the information during the contest, the Administrative Law Judge may review the citation and supporting documentation "in camera" or issue appropriate orders to protect the confidentiality of such matters.

1910.1200(i)(12)

Notwithstanding the existence of a trade secret claim, a chemical manufacturer, importer, or employer shall, upon request, disclose to the Assistant Secretary any information which this section requires the chemical manufacturer, importer, or employer to make available. Where there is a trade secret claim, such claim shall be made no later than at the time the information is provided to the Assistant Secretary so that suitable determinations of trade secret status can be made and the necessary protections can be implemented.

1910.1200(i)(13)

Nothing in this paragraph shall be construed as requiring the disclosure under any circumstances of process information which is a trade secret.

1910.1200(j)

Effective dates.

1910.1200(j)(1)

Employers shall train employees regarding the new label elements and safety data sheets format by December 1, 2013.

1910.1200(j)(2)

Chemical manufacturers, importers, distributors, and employers shall be in compliance with all modified provisions of this section no later than June 1, 2015, except:

1910.1200(j)(2)(i)

After December 1, 2015, the distributor shall not ship containers labeled by the chemical manufacturer or importer unless the label has been modified to comply with paragraph (f)(1) of this section.

1910.1200(j)(2)(ii)

All employers shall, as necessary, update any alternative workplace labeling used under paragraph (f)(6) of this section, update the hazard communication program required by paragraph (h)(1), and provide any additional employee training in accordance with paragraph (h)(3) for newly identified physical or health hazards no later than June 1, 2016.

1910.1200(j)(3)

Chemical manufacturers, importers, distributors, and employers may comply with either § 1910.1200 revised as of October 1, 2011, or the current version of this standard, or both during the transition period.

[59 FR 17479, April 13, 1994; 59 FR 65947, Dec. 22, 1994; 61 FR 5507, Feb. 13, 1996; 77 FR 17785, March 26, 2012]

* **Accessibility Assistance:** Contact the OSHA Directorate of Standards and Guidance at 202-693-1950 for assistance accessing PDF materials.

[78 FR 9313, Feb. 8, 2013]

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