SECTION 3

HAZARD COMMUNICATION PLAN: General

POLICY

ORC has implemented this program to ensure employees are informed of any chemical hazards and hazardous or toxic substances in their workplace.

ORC will develop, implement, and maintain at each workplace a written hazard communication program that describes how labels and other forms of warning, safety data sheets, and employee information will be accomplished.

A copy of the Company's Hazard Communication Program is available to all employees and will be kept at each jobsite by the Superintendent in charge, or in the office. Translations of the hazard communication program are available to non-English speaking employees upon request from the Project Safety Supervisor.

Employees will be notified of any hazardous substances used by any company other than ORC in the workplace and make safety data sheets available to employees.

A list of all chemicals known to be used at the workplace by company employees will be available for review at the jobsite and in the office. Safety Data Sheets (SDS) for all chemicals used in the workplace by ORC are available to employees at the worksite from the Superintendent or in the office.

Changes of job assignments, changes in materials used, or any non-routine tasks involving hazardous substances or conditions will require notification and/or retraining of effected employees. The project Safety Supervisor will inform or retrain employees of any new or additional hazards, detail methods of hazard abatement or elimination, and provide proper personal protective equipment or engineering controls necessary for the job. Notifications and retraining will be documented as to name of employee, date, description of action taken, and verification by the company Safety Supervisor.

CONTAINER LABELING

The Project Safety Supervisor, or designated employee, will ensure that each container of hazardous chemicals in the workplace is labeled, tagged, or marked with the following information:

- Identity of the hazardous chemical(s)
- Pictograms
- A signal word
- Hazard and precautionary statements
- The product identifier
- Supplier identification

The Project Safety Supervisor, or designated employee, will ensure labels or other, written warning forms, are legible and prominently displayed on the container, or readily available in the work area throughout each work shift.

No container will be released for use until this information is verified. The Project Safety Supervisor, or designated employee, will ensure that all containers are labeled with a copy of the original manufacturer's label or a label that has the appropriate identification and hazard warning.

SAFETY DATA SHEETS (SDS)

An SDS will be gathered and made available for every hazardous material at the worksite.

SDS are readily available for review to all ORC employees, and cover all hazardous chemicals used in the workplace. SDS are kept with the hazard communication plan at the project location. The SDS are updated and managed by project supervision and reviewed by the Project Safety Supervisor. If the SDS is not

available for a hazardous chemical, before use, notify the Project Safety Supervisor, and a SDS will be obtained for the chemical used.

TRAINING

Required Hazard Communication Training

If employees can be exposed to hazardous chemicals, project supervision must inform employees about the chemical and train them when they are hired and whenever they are exposed to a new chemical hazard or a process change. Required employee training includes:

- The written hazard-communication plan, and where it may be reviewed
- Hazardous chemicals present on the job site
- The operations where hazardous chemicals are used
- Physical and health effects of the hazardous chemicals
- Methods used to determine the presence or release of hazardous chemicals in the work area
- How to reduce or prevent exposure to these hazardous chemicals through use of control/work practices and personal protective equipment
- Where to find and how to read the hazard-communication plan, the list of hazardous chemicals, and SDS
- The meaning of warning labels on hazardous-chemical container
- Emergency procedures to follow if an employee is exposed to these chemicals
- How to use personal protective equipment

Label Elements Training

ORC will ensure all employees know the following elements of the labels: product identifier, signal word, pictogram, hazard statement, precautionary statement.

Employees will also be trained on how to use labels, to ensure proper storage and quickly locate first aid information.

They also need to know how the elements work together on a label.

- The different pictograms to indicate multiple hazards
- Where there are similar precautions, the one with the most protective information will be on the label

SDS Training

Employees will be trained on the standardized 16-section format and the type of information found in each one.

Training will also explain how the SDS information is related to the label information.

After attending the training, each employee will sign a company training form verifying they understand the above topics and how the topics are related to our hazard communication plan.

GENERAL SAFETY CONSIDERATIONS

Projects that produce, use, or store hazardous chemicals at the site in such a way that the employees may be exposed will additionally ensure that the hazard communication program developed and implemented include the following: methods project will use to provide the other employer(s) on-site access to safety data sheets, precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies, the labeling system used in the workplace.

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

HAZARDOUS CHEMICALS in PIPES, CLOSED, or HIDDEN SYSTEMS

Before working in areas where hazardous chemicals are transferred through pipes or where pipes are insulated with asbestos-containing material, employees will contact the Project Safety Manager for the following information: the chemicals in the pipes; the physical or health effects of the chemicals or the asbestos insulation; the safe work practices to prevent exposure.

NOTIFICATION of CONTRACTORS

It is the responsibility of the project Superintendent, project Safety Manager, or designated person to provide any workplace-associated contractors and their employees with the following information, if they may be exposed to hazardous chemicals on the project:

- The identity of the chemicals, how to review safety data sheets, and an explanation of the container and pipe labeling system
- Safe work practices to prevent exposure

The Superintendent, project Safety Manager, or designated person will also obtain a safety data sheet for any hazardous chemical a subcontractor brings into the workplace to which an employee of 2 may be exposed.

HAZARD COMMUNICATION in the WORKPLACE

The essence of hazard communication is a warning. We use thousands of chemical products throughout our lives, at home and at work. However, most of us would be hard-pressed to distinguish safe products from hazardous ones without warning (the familiar skull-and-crossbones, for example). The warning tells us the product is hazardous, that it can harm us if we use it improperly.

In the workplace, hazard communication ensures our employees who may be exposed to hazardous chemicals know about the chemicals' hazards and understand how to protect themselves from exposure.

The HAZARD COMMUNICATION PROCESS

Hazard communication begins when chemical manufacturers and importers evaluate their products to determine each product's chemical hazards. Next, they prepare a Safety Data Sheet (SDS) for each product. An SDS includes detailed information about the product's hazards. Manufacturers and importers must include an SDS and a warning label with each container of product they ship to a customer.

The part of the process that affects the project is the "Written Hazard Communication Plan." The plan identifies hazardous chemicals at your workplace and describes how you will use safety data sheets, warning labels, and training to protect employees and keep informed about the product's chemical hazards.

The labeling system, location of SDS, routine precautions and emergency procedures will be provided to other employers and employees who may be affected by hazardous chemicals produced, used, or stored at the worksite.

Definition of a Hazardous Chemical

OSHA's hazard-communication rule, 1910.1200, defines a hazardous chemical as "any element, chemical compound, or mixture that is a physical hazard or a health hazard."

Chemicals that are Physical Hazards

Chemicals that are physical hazards are unstable and, when handled improperly, can cause fires or explosions. A chemical that is a physical hazard has one of the following characteristics:

- Is a combustible liquid
- Is a compressed gas
- Is explosive
- Is flammable
- Is water-reactive
- Starts or promotes combustion in other materials
- Can ignite spontaneously in air

Chemicals that are Health Hazards

Chemicals that are health hazards can damage an exposed person's tissue, vital organs, or internal systems. Generally, the higher the chemical's toxicity, the lower the amount or dose necessary for it to have harmful effects. The effects vary from person to person, ranging from temporary discomfort to permanent damage, depending on the dose, the toxicity, and the duration of exposure to the chemical.

Health effects range from short-duration symptoms that often appear immediately (acute effects) to persistent symptoms that may appear after longer exposures (chronic effects). Health effects can be classified by how they affect tissue, vital organs, or internal systems:

- Agents that damage the lungs, skin, eyes, or mucous membranes
- Carcinogens cause cancer
- Corrosives damage living tissue
- Hematopoietic agents affect the blood system hepatotoxins cause liver damage
- Sensitizers cause allergic reactions and irritants cause inflammation of living tissue
- Nephrotoxins damage cells or tissues of the kidneys
- Neurotoxins damage tissues of the nervous system
- Reproductive toxins damage reproductive systems, endocrine systems, or a developing fetus

How to Determine Whether a Chemical is Hazardous

A chemical is hazardous if it is listed in any of the following documents:

- OSHA Division 2, Subdivision Z safety and health rules, Toxic and Hazardous Substances; Division 3, Subdivision Z, Toxic and Hazardous Substances (Construction); Division 4, Subdivision Z, Chemical/Toxins (Agriculture)
- Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment (latest edition). Published by the American Conference of Industrial Hygienists (ACGIH)
- The Registry of Toxic Effects of Chemical Substances, published by the National Institute for Occupational Safety and Health (NIOSH)
- The container label of the product will issue a warning of hazardous effects

Using Safety Data Sheets

An SDS contains detailed information about a hazardous chemical product's health effects, physical and chemical characteristics, and safe practices for using it.

Responsibilities of Chemical Manufacturers, Importers, and Distributors

Chemical manufacturers and importers must prepare an SDS for each hazardous chemical product they produce. Distributors are responsible for ensuring that you have an SDS for each hazardous chemical product they sell to the company.

What to do if You Use Hazardous Chemical Products on Your Project

The project must have a current SDS for each product. Employees must be able to review the SDS in their work area at any time. Employees must be able to review the SDS in their work area at any time. The project Safety Manager or designated employee will be responsible for managing all the SDS at the project. The project Safety Manager or designated employee will ensure the list of hazardous chemicals is current, that the identity of each chemical on the list matches its identity on its SDS, and that incoming hazardous chemical container have an SDS

Information required on Safety Data Sheets

Chemical manufacturers and importers must prepare an SDS for each hazardous chemical product they ship to the project. The following information must appear on each sheet.

- Section 1, Identification includes product identifier, manufacturer or distributor name, address, phone number, emergency phone number, recommended use, restrictions on use.
- Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.
- Section 3, Compositions/information on ingredients includes information on chemical ingredients; trade secret claims.
- Section 4, First-aid measures includes important symptoms/effects, acute, delayed; required treatment.
- Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.
- Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.
- Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.
- Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).
- Section 9, Physical and chemical properties lists the chemical's characteristics.
- Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.
- Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.
- Section 12, Ecological information*
- Section 13, Disposal considerations
- Section 14, Transport information
- Section 15, Regulatory information
- Section 16, Other information, includes the date of preparation or last revision.

Using Container Warning Labels

The purpose of a container warning label is to warn employees about the container's contents and to refer employees to an appropriate SDS for more information about the chemical's physical and health hazards. Manufacturers, importers, and distributors must ensure that each hazardous chemical product sold has a label that includes the chemical's identity, a hazard warning, and a name and address for additional information about the product. If the project uses a hazardous chemical on the project, the project must ensure that each hazardous chemical container has a legible label, in English, that identifies the chemical and warns of its hazards.

Containers that must be Labeled

Original containers of hazardous chemicals from a manufacturer, importer, or distributor must have warning labels. Do not remove or deface them. If the hazardous chemical is transferred to a new container that new container must be labeled.

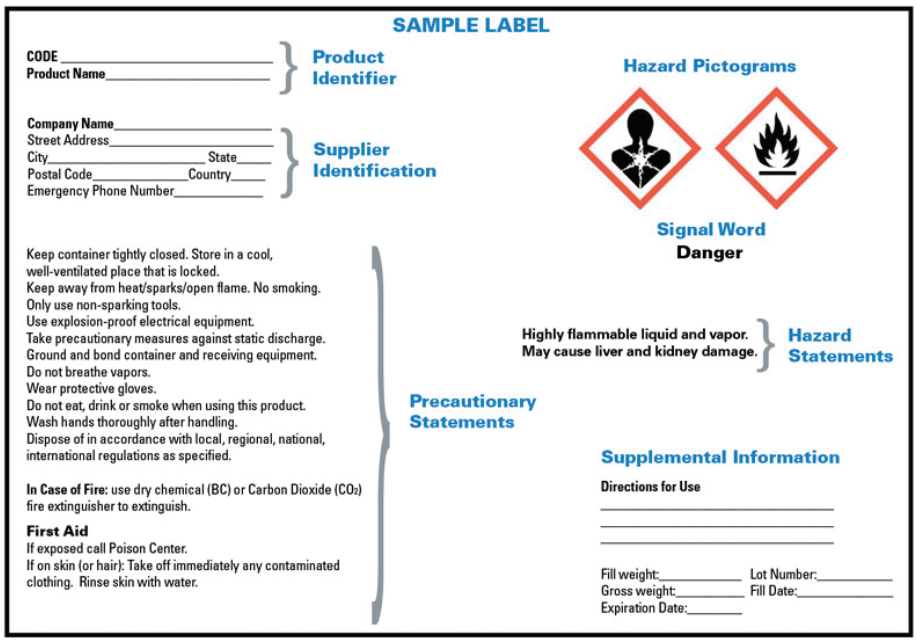
Contents of a Warning Label

A warning label must identify the chemical – a common chemical name or a code name is acceptable – and display a hazard warning such as DANGER or the familiar skull and crossbones.

- The identify of the chemical on the label, on its SDS, and on the project hazardous chemical list must match
- If not sure a hazardous chemical container is properly labeled, contact the manufacturer or supplier
- Designate project personnel to ensure all hazardous-chemical containers are properly labeled

ORC projects will ensure that workplace labels or other forms of warning are legible, in English, and prominently displayed on the container, or readily available on the project throughout each work shift. If a project has employees who speak other languages, the company may add the information in their language to the material presented, if the information is presented in English as well.

Example of Original Container GHS Label



Secondary/Portable Containers

Secondary containers are used to hold material transferred from the manufactures' original container. These are required to be labelled if:

- Is no used within the work shift by the individual who makes the transfer
- The employee who made the transfer leaves the work area
- The container is moved to another work area and is no longer in the possession of the person who filled the container

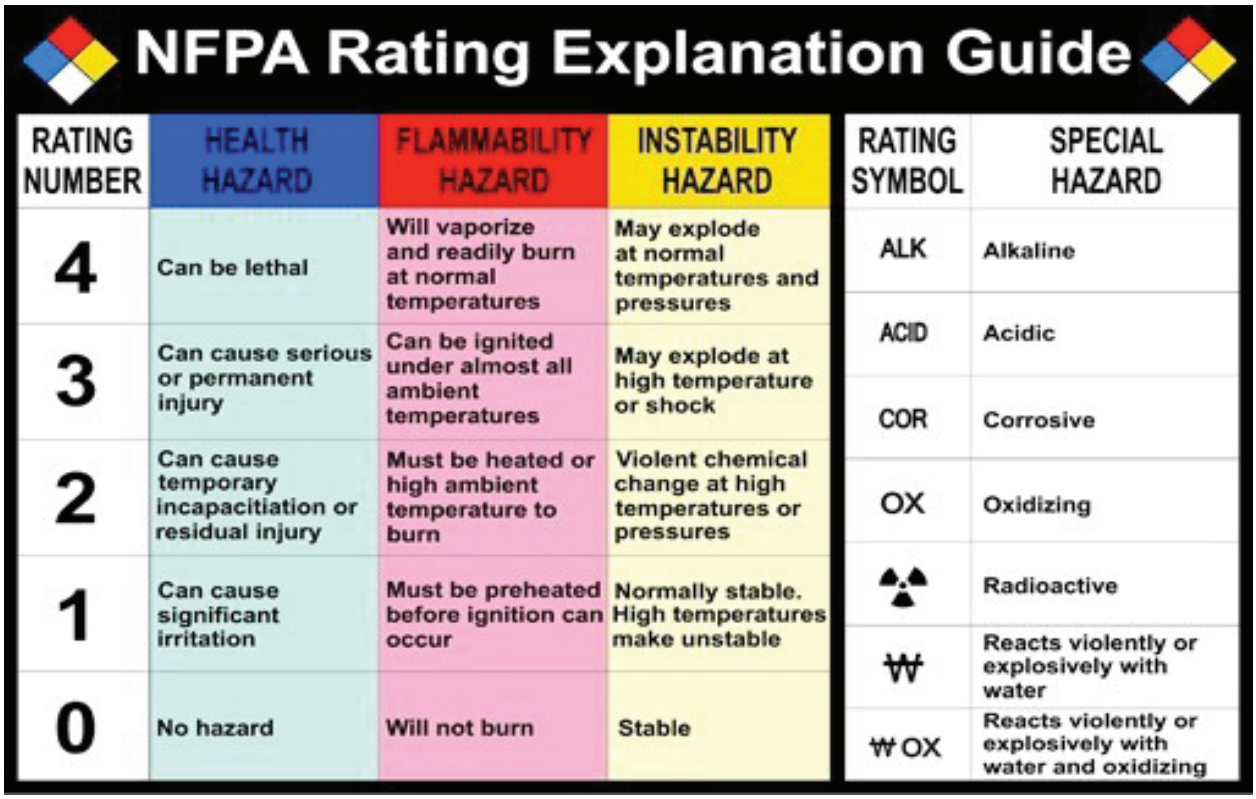
Labels for secondary containers must include:

- The identity of the chemical and appropriate hazard warning must be shown on the label.
- The hazard warning that provides users with an immediate understanding of the primary health and/or physical hazard(s) of the chemical through the use of words, pictures, symbols, or any combination of these elements.
- The name and address of the manufacturer, importer, or other responsible party

The hazard label message must be legible, permanently displayed and written in English.

Portable containers are intended for immediate use of a chemical by the person who makes the transfer. Labels on portable containers are not required if the worker who made the transfer uses all of the contents during the work shift, of the chemical is return to a labelled primary or secondary container at the end of the shift, or when work is completed.

Examples of NFPA



NFPA Rating Explanation Guide

RATING NUMBER	HEALTH HAZARD	FLAMMABILITY HAZARD	INSTABILITY HAZARD
4	Can be lethal	Will vaporize and readily burn at normal temperatures	May explode at normal temperatures and pressures
3	Can cause serious or permanent injury	Can be ignited under almost all ambient temperatures	May explode at high temperature or shock
2	Can cause temporary incapacitiation or residual injury	Must be heated or high ambient temperature to burn	Violent chemical change at high temperatures or pressures
1	Can cause significant irritation	Must be preheated before ignition can occur	Normally stable. High temperatures make unstable
0	No hazard	Will not burn	Stable

RATING SYMBOL	SPECIAL HAZARD
ALK	Alkaline
ACID	Acidic
COR	Corrosive
OX	Oxidizing
	Radioactive
₩	Reacts violently or explosively with water
₩ OX	Reacts violently or explosively with water and oxidizing

Although the NFPA system is widely recognized throughout the US, it is not part of the GHS. It is included in this plan for information purposes. All new labels must use the GHS format which is summarized below.

6 LABEL ELEMENTS

#6 MANUFACTURER INFORMATION

Company name, address & telephone number.

(SDS Section 1)

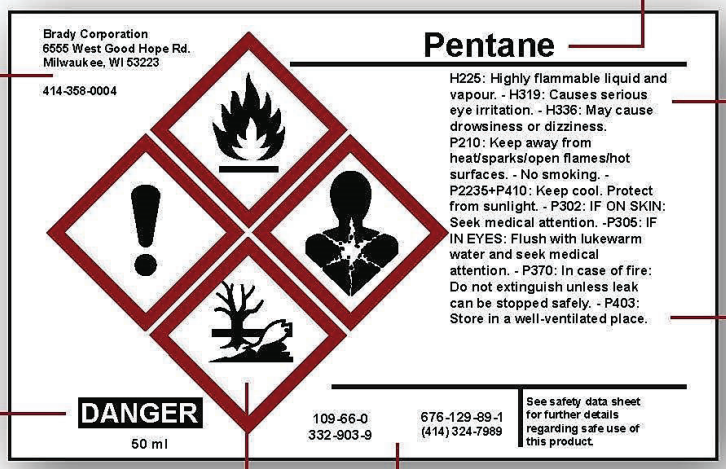
#3 PRODUCT NAME OR IDENTIFIERS*

(SDS Section 1)

#4 HAZARD STATEMENTS

Phrases that describe the nature of hazardous products and associated risks if precautionary action is not taken.

(SDS Section 2)



* Additional Product Identifiers

#5 PRECAUTIONARY STATEMENTS

Phrases associated with each hazard statement, that describe general preventative, response, storage or disposal precautions.

(SDS Section 2)

#1 SIGNAL WORD

Indicates relative severity of hazard. "Danger" is used for most severe instances, while "Warning" is less severe.

(SDS Section 2)

#2 SYMBOLS (HAZARD PICTOGRAMS)

Convey health, physical and environmental hazard information with red diamond pictograms. May use a combination of one to five symbols.

(SDS Section 2)

PICTOGRAM GUIDE

CHEMICAL/ PHYSICAL RISK

EXPLODING BOMB
Explosives, self-reactives, organic peroxides

FLAME
Flammable gases, liquids, & solids; self-reactives; pyrophorics; self-heating

FLAME OVER CIRCLE
Oxidizing gases, liquids and solids

GAS CYLINDER
Compressed gases; liquefied gases; dissolved gases

CORROSION
Corrosives to metals

HEALTH RISK

CORROSIVE
Skin corrosion; eye damage

SKULL AND CROSSBONES
Acute toxicity (severe, fatal)

EXCLAMATION MARK
Irritant, dermal sensitizer, acute toxicity (harmful)

HEALTH HAZARD
Carcinogens, respiratory sensitizers, reproductive toxicity, target organ toxicity, germ cell mutagens

ENVIRONMENTAL RISK

ENVIRONMENT
Aquatic toxicity

(Not regulated by OSHA)