

Section 33

Hazard Communication Program

33.1 Scope

The Hazard Communication Program (HCP) applies to all Reclamation operations where employees may be exposed to physical, health, and/or chemical hazards under normal working conditions or in foreseeable emergencies, as well as employees that purchase chemicals. This section is aligned with the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS) incorporated into the Federal Register on March 26, 2012 and meets the requirements of the updated Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1200, *Hazard Communication*.

33.2 General Requirements

33.2.1 Laboratory Use of Chemicals

Reclamation laboratories required to have a chemical hygiene plan, as outlined in OSHA 29 CFR 1910.1450, *Occupational Exposure to Hazardous Chemicals in Laboratories*, shall ensure their employees are trained on any additional elements in 33.4, *Training*, that are not covered in OSHA 29 CFR 1910.1450, except the location of the written HCP.

33.2.2 Disposal of Hazardous Chemicals

Hazardous waste disposal requirements for hazardous chemicals shall follow the federal, state, and local regulations where the site/facility is located.

33.3 Responsibilities

33.3.1 Reclamation Safety and Occupational Health Office

33.3.1.1 Shall provide technical support to assist Regional Safety Managers and Program Coordinators (PC) with implementing the HCP.

33.3.2 Area Office Manager

33.3.2.1 Shall designate an area office PC to implement the HCP.

33.3.2.2 Shall provide the necessary resources to implement and maintain procedures within the HCP.

33.3.3 Area Office Program Coordinator

- 33.3.3.1** Shall implement, administer, review, and update the HCP biennially or with any changed conditions in the workplace, such as new chemicals and/or hazards.
- 33.3.3.2** Shall provide or coordinate HCP training covering the elements in 33.4, *Training*.
- 33.3.3.3** Shall ensure chemical inventories are conducted biennially at the area office's sites.
- 33.3.3.4** Shall ensure area office locations have a system in place to house Safety Data Sheets (SDSs) for their products used onsite (e.g., in binders, an online service provider).
- 33.3.3.5** Shall coordinate with first-line supervisors to ensure all secondary containers are labeled appropriately as outlined in 33.7.1.1.2, *Secondary Container Labeling*.
- 33.3.3.6** Shall create a process to ensure all new hazardous chemicals have been reviewed and approved prior to purchase and have been added to the chemical inventory list.

33.3.4 First-Line Supervisors

- 33.3.4.1** Shall perform/coordinate a workplace or work activities assessment to determine if hazardous chemicals are present or used which could result in potential exposure to their employees per RSHS Section 4, *Work Safety Planning*, and 4.2.1 *Hazard Assessments*.
- 33.3.4.2** Shall ensure employees are trained on the elements of the HCP, including which employees are responsible for various program elements.
- 33.3.4.3** Shall ensure SDSs are readily available and are incorporated in the job hazard analysis (JHA) where hazardous chemicals will be used.
- 33.3.4.4** Shall ensure employees are trained on the personal protective equipment (PPE) required for the job tasks and any additional PPE has been identified within JHAs.
- 33.3.4.5** Shall coordinate walk throughs to ensure containers with the manufacturer's label are in English and legible and secondary containers are labeled properly as outlined in 33.7.1.1.2, *Secondary Container Labeling*.
- 33.3.4.6** Shall use the hierarchy of controls to review chemical hazards and compatibility information prior to purchasing new products and/or when it is necessary to review hazards and precautions as a result of an employee injury/illness from hazardous chemical use.

33.3.4.7 Shall ensure employees know how to access the written HCP and SDSs and the process for obtaining new hazardous chemicals.

33.3.5 Employees

33.3.5.1 Shall attend training and follow the requirements outlined in the HCP.

33.3.5.2 Shall review the JHA and the SDS(s) prior to conducting the job task(s) which involve hazardous chemicals and follow the identified precautions.

33.3.5.3 Shall obtain a secondary container label whenever they transfer hazardous chemicals from the manufacturer's original container to a secondary container.

33.3.5.4 Shall follow the site/facility process for obtaining new hazardous chemicals.

33.3.6 Regional Safety Managers

33.3.6.1 Shall assist in developing and establishing the HCP, when necessary, and shall perform periodic spot checks to ensure compliance with this section.

33.3.7 Project Managers/Contracting Officer Representatives (CORs)

33.3.7.1 Shall ensure contractors bringing in hazardous chemicals to a Reclamation worksite have the proper SDSs.

33.3.7.2 Shall ensure contractors are aware of Reclamation's emergency response requirements for the worksite in the event of a spill or leak within a building or the environment.

33.3.8 Employees Purchasing Hazardous Chemicals

33.3.8.1 Shall receive HCP training and follow the requirements outlined in this section.

33.4 Training Requirements

33.4.1 Initial Training

At a minimum, employees shall be trained on the following elements before initial job assignments and when new hazards are introduced into work areas:

- the requirements of this section;
- operations in the employees' work areas where hazardous chemicals are present;
- locations and availability of the written HCP including chemical inventories and SDSs;
- the sections and terminology used in SDSs;
- labels on shipping and secondary containers;

- methods and observations used to detect the presence of hazard chemicals (e.g., exposure monitoring, visual appearance/odor, hissing from piping);
- the physical and health hazards and hazards not otherwise classified of the chemicals used in the work areas;
- measures employees can take to protect themselves from hazards including specific procedures the site/facility has implemented to protect employees from exposure to hazardous chemicals such as appropriate work practices, emergency procedures, and PPE to use; and
- procedures for any non-routine tasks.

33.4.2 Refresher Training

Employees shall receive refresher training to review the SDSs when new products are introduced to the work area/operations and/or when it is necessary to review hazards and precautions as a result of employee injury/illness from hazardous chemical use.

33.4.3 Recordkeeping

All Reclamation training records shall be kept in the Department of the Interior official repository.

33.5 Hazard Identification, Assessment, and Safety Measures

33.5.1 Hazard Identification and Assessment

Work areas and activities shall be assessed to determine if hazardous chemicals are present or used which could result in potential exposure to employees and to provide the appropriate controls to reduce employee exposure.

33.5.2 Safety Measures

The following minimum safety measures shall be observed when using hazardous chemicals:

- determine if the work can be done without the hazardous product or substituted for a less hazardous product;
- assess available engineering controls such as local ventilation or HEPA filtering vacuums;
- implement administrative controls that change the way work is done to reduce exposure;
- provide the required PPE from the JHA and SDSs for employees, ensure they know how to use it, and what the limitations are;
- read and understand all sections in the SDS, especially the exposure symptoms in section 11, *Toxicological Information*;
- ensure all secondary containers are labeled with the product's name and hazard warnings;
- store incompatible hazardous chemicals separately;
- refrigerators for food shall not contain hazardous chemicals;

- spills and leaks shall be cleaned up immediately if it is safe to do so, the employee has been trained on proper clean-up procedures, and the proper equipment for clean-up is available;
- follow the site/facility disposal procedures for hazardous chemicals; and
- ensure an emergency eyewash and shower are functional, provides at least 15 minutes of flow, and has a clear path of travel within 10 seconds (~55 ft.) on the same level where employees could come in contact with corrosive and toxic materials.

33.6 Pre-job Briefing and Planning Requirements

All JHAs where hazardous chemicals will be used shall incorporate the appropriate SDS(s) and be reviewed with the employees prior to performing the job task(s).

33.7 Safe Practices

33.7.1 Written Program

A written HCP shall be implemented when employees may be exposed to physical and/or chemical hazards under normal working conditions or in foreseeable emergencies. The written program shall include the following elements:

- container labeling requirements and SDS information;
- employee information and training;
- list of hazardous chemicals using the product identifier;
- methods to inform employees of the hazards of non-routine tasks; and
- hazards associated with chemicals contained in unlabeled pipes.

33.7.1.1 Labeling Requirements

33.7.1.1.1 Labels on Shipped Containers. Chemical manufacturers must ensure each shipped container of hazardous chemicals is labeled in accordance with OSHA 29 CFR 1910.1200, Appendix C, *Allocation of Label Elements (Mandatory)*. Hazards not otherwise classified, do not have to be listed on the container. Labels must be in English and prominently shown on the container with the following information:

- product identifier, signal word, pictogram(s);
- precautionary statement; and
- name, address, and phone number of the chemical manufacturer or other responsible party.

33.7.1.1.2 Secondary Container Labeling. Containers must either be labeled with information in 33.7.1.1.1, *Labels on Shipped Containers* or with the product identifier and words, pictures, symbols, or a combination that provides information on the physical and health hazards. If an employee intends to immediately use a hazardous material after transferring it to a portable secondary container, the container does not need to be labeled.

33.7.1.1.3 Alternative Labeling. When stationary process containers are used signs, placards, process sheets, batch tickets, or operating

procedures may be used in lieu of affixing labels to the individual container.

33.7.1.1.4

Pictograms. OSHA adopted the following 9 GHS pictograms in Figure 33-1. The Environment pictogram is not mandatory, per OSHA, but may be used on labels to provide information. These pictograms do not replace the diamond shaped labels the U.S. Department of Transportation (DOT) requires for transporting chemicals.

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

Figure 33 - 1. GHS Pictograms and Descriptions

33.7.1.2 Safety Data Sheets

Each hazardous chemical used in the workplace shall have an SDS.

33.7.1.2.1 SDS Requirements. Chemical manufacturers or importers must prepare the SDS in English and send it with the first initial shipment (copies in other languages are allowed). If an SDS is not included in the initial shipment, then one must be obtained as soon as possible. If it is authorized to purchase hazardous chemicals at local stores, then an SDS must be obtained from the store. If an SDS is not available, then it must be obtained from the manufacturer. SDSs must have the following sections and headings with accompanying information per OSHA 29 CFR 1910.1200 Appendix D, *Safety Data Sheets (Mandatory)*:

- Section 1 Identification;
- Section 2 Hazard(s) identification;
- Section 3 Composition/information on ingredients;
- Section 4 First-aid measures;
- Section 5 Fire-fighting measures;
- Section 6 Accidental release measures;
- Section 7 Handling and storage;
- Section 8 Exposure controls/personal protection;
- Section 9 Physical and chemical properties;
- Section 10 Stability and reactivity;
- Section 11 Toxicological information;
- Section 12 Ecological information;
- Section 13 Disposal considerations;
- Section 14 Transport information;
- Section 15 Regulatory information, and
- Section 16 Other information, including date of preparation or last revision.

33.7.1.2.2 SDS Location. SDSs shall be readily accessible to employees during all work shifts. Electronic access, hard copies, or other alternatives may be used to ensure the employee has immediate access. When employees travel between workplaces and the SDSs are maintained at the primary workplace, the employee must be able to obtain the required SDS information in the event of an emergency.

33.7.1.2.3 Trade Secrets. Chemical manufacturers may withhold specific information on the chemical identity and the exact percentage of the substance in a mixture on the SDS, if trade secret requirements are met. In the event of emergency first aid treatment, a physician or nurse can obtain the trade secret information without a confidentiality agreement. For non-emergency situations, trade secret information may be requested from the manufacturer following the steps outlined in OSHA 29 CFR 1910.1200(i)(3).

33.8 Definitions

Chemical	Any substance or mixture of substances.
Chemical inventory	The names of all hazardous chemicals used in the workplace by using the identity that is referenced on the SDS. This identity is often a common name, such as the product or trade name.
Chemical manufacturer	A workplace where chemicals are produced for use or distribution.
Chemical name	The scientific designation of a chemical or a name that will clearly identify the chemical for the purpose of conducting a hazard classification.
Classification	To identify the relevant data regarding the hazards of a chemical, review the 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 program. 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.
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.
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 program, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.
Corrosives	Materials that can attack and chemically destroy exposed body tissues. Corrosives can also damage or even destroy metal. They begin to cause damage as soon as they touch the skin, eyes, respiratory tract, digestive tract, or metal. They might be hazardous in other ways too, depending on the particular corrosive material.
Employee	A worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers who encounter hazardous chemicals only in non-routine, isolated instances are not covered by this program.
Exposure or exposed	An employee is subjected during employment to a chemical that is a physical or health hazard and includes potential accidental or possible exposure. "Subjected" in terms of health hazards includes any route of entry (e.g., inhalation, ingestion, skin contact, absorption).

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.
Globally Harmonized System of Classification and Labeling of Chemicals (GHS)	Program developed and used by the United Nations to allow for a uniformity-oriented approach for the classification and presentation of hazard information through labeling and safety data sheets.
Hazard category	The division of criteria within each hazard class (e.g., oral acute toxicity and flammable liquids) include four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.
Hazard class	The nature of the physical or health hazards (e.g., flammable solid, carcinogen, oral acute toxicity).
Hazard not otherwise classified (HNOC)	An adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in OSHA 29 CFR 1910.1200. This does not extend coverage to adverse physical and health effects for which there is a hazard classified addressed in OSHA 29 CFR 1910.1200, but the effect either falls below the cut-off value/concentration limit of the hazard class or is under a Globally Harmonized System of Classification and Labelling of Chemicals hazard category that has not been adopted by OSHA.
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, such as 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 (OSHA 29 CFR 1910.1200, Appendix A, <i>Health Hazard Criteria (Mandatory)</i>).
Immediate use	The 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	An appropriate group of written, printed, or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.
Label elements	The specified pictogram, hazard statement, signal word, and precautionary statement for each hazard class and category.
Laboratory scale	Working with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person. "Laboratory scale" excludes those workplaces whose function is to produce commercial quantities of materials.
Laboratory use	Handling or use of such chemicals in which all of the following conditions are met: (a) Chemical manipulations are carried out on a "laboratory scale;" (b) Multiple chemical procedures or chemicals are used; (c) The procedures involved are not part of a production process, nor in any way simulate a production process; and (d) "Protective laboratory practices and equipment" are available and in common use to minimize the potential for employee exposure to hazardous chemicals.
Mixture	Any combination or a solution composed of two or more substances in which they do not react.
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 (OSHA 29 CFR 1910.1200, Appendix B, <i>Physical Criteria (Mandatory)</i>).
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 29CFR1910.1200 for application to a hazard category.
Precautionary statement	A phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.
Product identifier	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.

Program coordinator	A person that has the appropriate training and/or experience to manage, coordinate, implement, and evaluate specific Hazard Communication Program elements.
Safety Data Sheet (SDS)	Written or printed material concerning a hazardous chemical that is prepared in accordance with OSHA 29 CFR 1910.1200(g), formerly known as a Material Safety Data Sheet (MSDS).
Secondary container	When you transfer a chemical from its original container to another container, the container you transfer it into is called a secondary container.
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 OSHA 29 CFR 1910.1200(c) are “danger” and “warning.” “Danger” is used for the more severe hazards while “warning” is used for the less severe hazards.
Substance	Chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.
Toxic substance	Any substance that can cause injury or illness, or which is suspected of being able to cause injury or illness under some conditions.
Trade secret	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 (OSHA 29 CFR 1910.1200 Appendix E, <i>Definition of “Trade Secret” (Mandatory)</i>).

33.9 References

- American National Standards Institute/International Safety Equipment. ANSI/ISEA 358.1-2014. Association. *American National Standard for Emergency Eyewash and Shower Equipment*.
- Occupational Safety and Health Administration. 29 CFR 1910.1200, *Hazard Communication*. <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200>
- Occupational Safety and Health Administration. 29 CFR 1910.1450, *Occupation Exposure to hazardous chemicals in laboratories*. <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1450>
- Occupational Safety and Health Administration. 29 CFR 1910.151, *Medical Services and First Aid*. <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.151>.
- Occupational Safety and Health Administration. OSHA Brief, Hazard Communication Standard: Labels and Pictograms. <https://www.osha.gov/Publications/OSHA3636.pdf>