

# Oregon OSHA's **quick guide** to **hazard communication** **for general industry**

*What you should know and not a word more!*



# About this guide

**Hazard communication for general industry** is an Oregon OSHA Standards and Technical Resources publication. Oregon OSHA quick guides are for employers and employees who want to know about a specific topic and get back to business — quickly.

**Read this guide if** you want to know how to comply with our hazard communication rules for general industry. Our general industry requirements affect most businesses except those that do agriculture, construction, or forest activities work.

**What the icons mean.** Throughout the guide you'll see icons that direct your attention to questions, important information, and where to look for more information.

Here's what they look like:



— Question



— Important Information



**Gobbledygook** or *gobbledegook* (sometimes shortened to *gobbledegoo*) is an English term used to describe nonsensical language, sound that resembles language but has no meaning, or unintelligible encrypted text. It is also used to refer to official, professional, or pretentious language. In this sense, gobbledygook is a hurdle of communication at best, a means of imposing power at worst.

Source:

— **Wikipedia, The Free Encyclopedia.**

<http://en.wikipedia.org/wiki/Gobbledygook>

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## We want you to understand what you read

Every *Oregon OSHA quick guide* comes with a **plain-language guarantee!** Let us know if you're not satisfied. Contact **Ellis Brasch:** 503-947-7399, [ellis.k.brasch@state.or.us](mailto:ellis.k.brasch@state.or.us).



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# What is hazard communication?

The essence of hazard communication is a warning. We use thousands of chemical products throughout our lives but most of us couldn't tell safe ones from hazardous ones without a warning — the familiar skull and crossbones, for example. The warning tells us the chemicals in a product can harm us if we don't use it properly.

## ***Why do we have workplace hazard communication rules?***

The rules make sure that workers who use hazardous chemicals know how the chemicals can harm them and how to use them safely.

## ***Who's affected by the rules?***

The rules affect most employers whose employees may be exposed to hazardous chemicals. There are three different hazard communication rules. The one that affects you depends on your industry:

## **Oregon OSHA's hazard communication rules**

<b>Your industry</b>	<b>Your rule</b>
Agriculture	Subdivision 4/Z: 437-004-9800
Construction	Subdivision 3/D: 1926.59
General Industry	Subdivision 2/Z: 1910.1200

Oregon OSHA's general industry hazard communication rules affect most businesses except those that do agriculture, construction, or forest activities work.

## ***Understanding the hazard communication process***

Hazard communication is a process that involves chemical manufacturers, importers, distributors, and you.

### **Steps in the hazard communication process**

1	Chemical manufacturers or importers determine if the chemicals they produce are hazardous.
2	The manufacturers or importers prepare <b>material safety data sheets</b> (MSDS) that describe the chemical's hazards. Every hazardous chemical that manufacturers or importers sell must have an MSDS and a <b>label</b> that identifies the chemical and warns of its hazards.
3	Your workplace purchases chemical products from a manufacturer, distributor, or importer.
4	You prepare a <b>written hazard communication plan</b> that identifies the hazardous chemicals at your workplace and describes how you will use MSDS, warning labels, and training to inform your employees.



**What's the difference between a hazard communication "plan" and a hazard communication "program?"** *There is no difference. You can prepare a "plan" or a "program" — they mean the same thing.*



# What do I have to do to comply?

## **Prepare a written hazard communication plan**

A hazard communication plan identifies the hazardous chemicals at your workplace and describes how you will inform and train your employees about the hazards.

**You must prepare a hazard communication plan if your employees use or may be exposed to hazardous chemicals. There is an example of a written hazard communication plan at the end of this guide.**

### **How to prepare your plan:**

#### **Identify the chemicals that your employees could be exposed to by developing a list.**

- If a chemical is hazardous and an employee could be exposed to it, put it on the list. Include hazardous chemicals in all forms — liquids, solids, gases, vapors, fumes, and mists.
- Update your list when you receive new chemicals.
- Make sure there is a material safety data sheet for each chemical on the list.

#### **Identify containers that have hazardous chemicals.**

Describe how you will make sure that each container has a label that identifies the chemical and warns of its hazards.

#### **Determine where you will keep material safety data sheets.**

Keep material safety data sheets where they are readily available to all employees. Identify the location if you store them in a paper file. Describe how employees will access them if you store them electronically.

#### **Describe how you will train your employees about the chemicals' hazards.**

Include how employees can protect themselves from hazards, what they need to know about material safety data sheets and warning labels, and where they can review material safety data sheets.

#### **Describe how you will inform employees who do non-routine tasks about the hazardous chemicals they may be exposed to.**

Include the tasks and what employees must do to minimize exposure.

## Describe how you will inform employees about hazardous chemicals in pipes.

Focus on hazardous chemicals in pipes that run through employees' work areas.

## Describe how you will inform contractors' employees about the hazardous chemicals they may be exposed to.

Include where employees can find material safety data sheets and how they can recognize warning labels on hazardous chemicals.

## ***Make sure that material safety data sheets are current and readily available for employees to use***

- You must have a current material safety data sheet for each hazardous chemical product that your employees use or may be exposed to.
- Your employees must be able to review material safety data sheets in their work area at any time.
- It's OK to keep material safety data sheets in a notebook or on a computer — employees must be able to get the information immediately in an emergency.
- Make sure that your list of hazardous chemicals is current, there's a material safety data sheet for each chemical on the list, and incoming hazardous-chemical containers have material safety data sheets.



**You don't need to keep material safety data sheets for hazardous chemicals that you're no longer using. But, you must keep records of the chemicals, where they were used, and the years they were used for at least 30 years.**




**For information about keeping records, see "Access to employee exposure and medical records," Subdivision 2/Z, 1910.1020(d)(ii)(B).**

*A material safety data sheet has detailed information about a hazardous chemical's health effects, physical and chemical characteristics, and safe practices for using it.*

Chemical manufacturers and importers must prepare a material safety data sheet for each hazardous chemical product they ship to you. Distributors must make sure that you have a material safety data sheet for each hazardous chemical product they sell to you.

One person should be responsible for managing all the material safety data sheets at your workplace.

# Example: a material safety data sheet

MATERIAL SAFETY DATA SHEET			
<b>FREY</b> <b>SCIENTIFIC</b>	905 Highway 1 Ave Montreal, Qc H4A 4G5 (418) 589 9905	MSDS No. CC 30 Effective Date May 11, 1993	
<b>SECTION I IDENTIFICATION</b>		<b>24 HOUR EMERGENCY ASSISTANCE</b>	
<b>Product</b> CALCIUM METAL <b>Chemical Synonyms</b> Calcium Metal, Granular, Turnings <b>Formula</b> Ca <b>Unit(s) Size</b> 100 to 500 grams <b>C.A.S. No.</b> 7440-70-2			
<b>SECTION II HAZARDOUS INGREDIENTS OF MIXTURES</b>			
<b>Principal Hazardous Component(s)</b>			
Calcium Metal (CAS No. 7440-70-2)	99%	TLV Units Not established	
Magnesium Metal (CAS No. 7439-95-4)	0.7%	Not established	
<b>WARNING! FLAMMABLE SOLID - A FIRE HAZARD</b> <b>KEEP DRY AND WELL CLOSED. DANGEROUS WHEN WET.</b>			
<b>SECTION III PHYSICAL DATA</b>			
Melting Point (°F)	839°C (1544°F)	Relative Density (H <sub>2</sub> O = 1)	1.54 @ 20°C
Boiling Point (°F)	1487°C (2817°F)	Relative Density (Air = 1)	Non volatile (HA)
Vapor Pressure (mm Hg)	10 mm @ 263°C	Evaporative Rate (H <sub>2</sub> O = 1)	Non volatile (HA)
Vapor Density (Air=1)	Not listed	Explosive Data	-1
Solubility in Water	Caution: Reacts violently with water to produce hydrogen gas.		
Appearance & Odor	Lustrous, silver-white particles which freshly cut, turn to a grayish-white on exposure to air, no odor.		
<b>SECTION IV FIRE AND EXPLOSION HAZARD DATA</b>			
Flash Point (Method Used)	Non flammable	Flammable Limits in Air % by Volume	None
Extinguisher	Use dry graphite, soda ash, powdered sodium chloride, sand, G powder.		
<b>SPECIAL FIREFIGHTING PROCEDURES</b>			
Do not use water or halogenated hydrocarbons such as Carbon Tetrachloride. Carbon dioxide and dry chemicals are ineffective. Wear a self contained breathing apparatus, wear goggles. USE: Special mixtures of dry chemical or foam is only extinguishing agent to be used.			
(1990 EMERGENCY RESPONSE GUIDEBOOK, DOT 1 5000 S, GUIDE PAGE NO. 40)			
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS</b>			
Calcium reacts with water to form the hydroxide and hydrogen. Mixed with air, the liberated hydrogen may present an explosion hazard. Explosion or violent reaction may take place if care is not exercised in selecting extinguishants applied to a calcium fire. Finely divided calcium is considered pyrophoric and will cause an explosion when an ignition source is applied. Moderate explosion hazard in intimate contact with very powerful oxidizing agents.			
<b>SECTION V HEALTH HAZARD DATA</b> Threshold Limited Value		None established.	
<b>Effects of Overexposure</b>			
<b>Emergency and First Aid Procedures</b>		<b>SKIN:</b> Wipe excess metal from skin. Wash with soap and water. <b>EYES:</b> Flush with water for 15 minutes. Get prompt medical attention. <b>INGESTION:</b> Specific data is not available. Call physician immediately.	
<b>SECTION VI REACTIVITY DATA</b>			
Stability	Unstable	Conditions to Avoid	
	Stable	X Unstable when exposed to moist atmosphere - heat.	
Incompatibility (Materials to Avoid)	Moisture from any source, alkali - metal hydroxides and carbonates.		
Hazardous Decomposition Products	Calcium and water react to produce hydrogen. Burning calcium is self sustaining and strongly reducing to adjacent media.		
Hazardous Polymerization	Conditions to Avoid		
May Occur	Will Not Occur	X Not applicable	
<b>SECTION VII SPILL OR LEAK PROCEDURES</b>			
<b>Steps to be taken in case material is released or spilled</b>			
Wear protective equipment and clothing. Collect spilled material for reclamation or disposal in sealed containers. Avoid contact with water. Avoid inhalation of dust.			
<b>Waste Disposal Method</b>			
Discharge, treatment, or disposal may be subject to Federal, State or local laws. These disposal guidelines are intended for the disposal of casting size quantities only. Recycle or dispose of in an approved incinerator or contact with a licensed chemical waste disposal service.			
<b>SECTION VIII SPECIAL PROTECTION INFORMATION</b>			
<b>Respiration Protection (Specify Type)</b> Normally none needed. A NIOSH approved dust filter mask if needed.			
Ventilation	Local Exhaust	Recommended	Special
	Not Recommended	Recommended	Other
Protective Gloves	Rubber	Eye Protection	
Other Protective Equipment	Safety glasses, smock, apron, eye wash station and a fire extinguisher.		
<b>SECTION IX SPECIAL PRECAUTIONS</b>			
<b>Precautions to be Taken in Handling &amp; Storing</b>			
Store in a cool, dry place. No smoking or open flames when opening container. Wash thoroughly after handling. Keep container tightly closed when not in use.			
<b>Other Precautions</b>			
Flammable on contact before wetting. Do not wear contact lenses when working with chemicals. Store under kerosene or other neutral oil. Never store under halogenated hydrocarbons. Remove and wash contaminated clothing.			
For Laboratory use only. Use for drug, food or household use. Keep out of reach of children.			
Rev. No.	No. 8	Date	5/11/93
Approved	Alexander A. Piccinini	Checked by	Betty Constance
			AP



## Label hazardous chemical containers

Every hazardous chemical container at your workplace must have a legible label, in English, that names the chemical and warns of its hazards. There's an exception for portable containers.

Don't remove or deface the labels on containers that you receive from manufacturers, importers, or distributors.

### The warning label must identify the chemical

A common chemical name or a code name is acceptable. The label must also include a warning such as **DANGER** or the familiar skull and crossbones.



The name on the label must match the name on the material safety data sheet and the name on your hazardous chemical list.



### Portable containers don't need labels if their contents are used immediately

Portable containers are intended for "immediate use." This bit of legalese means that if you're an employee you must not allow anyone else to use the container and you must use the contents during your work shift.

#### **"Immediate use" as defined in Subdivision 2/H, 1910.120:**

"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."

#### Examples of portable containers:

- bags
- barrels
- bottles
- boxes
- cans
- cylinders
- drums
- reaction vessels

Manufacturers, importers, and distributors must ensure that each hazardous chemical product has a label that includes the chemical's name, a hazard warning, and a contact for more information about the product.

One person should be responsible for ensuring that all containers are properly labeled.

**Hazardous substances include:**

- **Physical hazards** such as combustible liquids or compressed gas
- **Health hazards** such as toxic, carcinogenic, or corrosive chemicals

## ***Label pipes that contain hazardous substances***

If your workplace has pipes that contain hazardous substances or that are insulated with **asbestos-containing material**, you must either put warning labels on the pipes or use other methods, such as **process sheets** or **written procedures**, to warn employees.

- The method you use must clearly identify the location of the pipes and the substances in the pipes.
- Process sheets or written procedures must be readily available to employees in their work areas.
- Apply labels at the beginning and at the end of continuous pipe runs (at least every 75 feet on pipes insulated with asbestos-containing material).
- The warning label on pipes insulated with asbestos-containing material must identify the location of the pipes and include these words: **Danger. Contains asbestos fiber. Avoid creating dust. Cancer and lung disease hazard.**
- If a pipe is above or below the normal line of vision, apply the label above or below the horizontal centerline of the pipe so that employees can see it.



Look for information about pipe labeling in Oregon rules for pipe labeling, Subdivision 2/Z, 437-002-0378.

## ***Train employees when you hire them and whenever they're exposed to a new chemical hazard or process***

### **Cover the following topics:**

- Where to find and how to read your hazard communication plan, the list of hazardous chemicals, and material safety data sheets
- Jobs and processes in which hazardous chemicals are used
- The chemicals' physical and health hazards
- The meaning of warning labels on chemical containers and on pipes that contain hazardous substances
- How to recognize emergencies involving hazardous chemicals
- The procedures, equipment, and work practices that control exposure

**Who can train employees?** *Choose a person who understands the topics and knows how to do the training. Forms such as those on the following pages help you document that employees have received hazard communication training.*



**Example: Training acknowledgement form**

Use a form such as this one to document that an employee has been trained about hazardous chemicals used in the workplace as required by Oregon OSHA hazard communication rules.

*I have been informed about the hazardous chemicals that I may be exposed to during my work and I have received training on the following topics:*

- An overview of the requirements in Oregon OSHA’s hazard communication rules.
- Hazardous chemicals present in the workplace.
- The written hazard communication plan.
- How to read labels and review material safety data sheets.
- Physical and health effects of the hazardous chemicals.
- Methods 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 exposure controls/work practices and personal protective equipment.
- Steps we have taken to reduce or prevent exposure to these chemicals.
- Emergency procedures to follow if exposed to these chemicals.

**Note to employee:** This form becomes part of your personnel file; read and understand it before signing.

Employee: \_\_\_\_\_ Date: \_\_\_\_\_

Trainer: \_\_\_\_\_ Date: \_\_\_\_\_

**Example: Employee training record**

Use a form such as this one to record the workplace safety and health training each employee receives.

**Employee name** \_\_\_\_\_

Job description \_\_\_\_\_

Training date	Subject of training	Description of training	Trainer's name

# Example: A written hazard communication plan

## Identifying hazardous chemicals

This list identifies all hazardous chemicals used at this workplace. *[Include the list of hazardous chemicals]*. Detailed information about the physical and health effects of each chemical is included in a material safety data sheet; the identity of each chemical on the list matches the identity of the chemical on its material safety data sheet. Material safety data sheets are readily available to employees in their work area. *[Identify where and how employees can use materials safety data sheets]*.

## Identifying containers that have hazardous chemicals

All hazardous chemical containers used at this workplace will clearly identify the chemical on the label, and include an appropriate hazard warning and the manufacturer's name and address. No container will be released for use until this information is verified. *[Name of person or job title]* 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.

## Keeping material safety data sheets

Material safety data sheets are readily available to all employees. Employees can review material safety data sheets for all hazardous chemicals used at this workplace. *[Identify the file location if they are stored in a paper file. Describe how to access them if they are stored electronically]*.

The material safety data sheets are updated and managed by *[name of person or job title responsible for managing the material safety data sheets]*. If a material safety data sheet is not available for a hazardous chemical, immediately notify *[name of person or job title responsible for managing the material safety data sheets]*.

## Example: A written hazard communication plan, continued

### **Training employees about chemical hazards**

Before they start their jobs or are exposed to new hazardous chemicals, employees must attend a hazard communication class that covers the following topics:

- An overview of the requirements in Oregon OSHA's hazard communication rules.
- Hazardous chemicals present in their workplace.
- The written hazard communication plan, and where it may be reviewed.
- How to read labels and review material safety data sheets.
- 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.
- Steps we have taken to reduce or prevent exposure to these chemicals.
- Emergency procedures to follow if an employee is exposed to these chemicals.

After attending the training, employees will sign a form verifying that they understand the above topics and how the topics are related to the hazard communication plan.

### **Informing employees who do special tasks**

Before employees perform special (non-routine) tasks that may expose them to hazardous chemicals, their supervisors will inform them about the chemicals' hazards. Their supervisors also will inform them about how to control exposure and what to do in an emergency.

Examples of special tasks that may expose employees to hazardous chemicals include the following: *[include examples of special (non-routine) tasks]*.

## Example: A written hazard communication plan, continued

### **Informing employees about hazardous chemicals in pipes**

Before working in areas where hazardous chemicals are transferred through pipes or where pipes are insulated with asbestos-containing material, employees will contact *[name of person or job title]* 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.

### **Informing contractors' employees about hazardous chemicals**

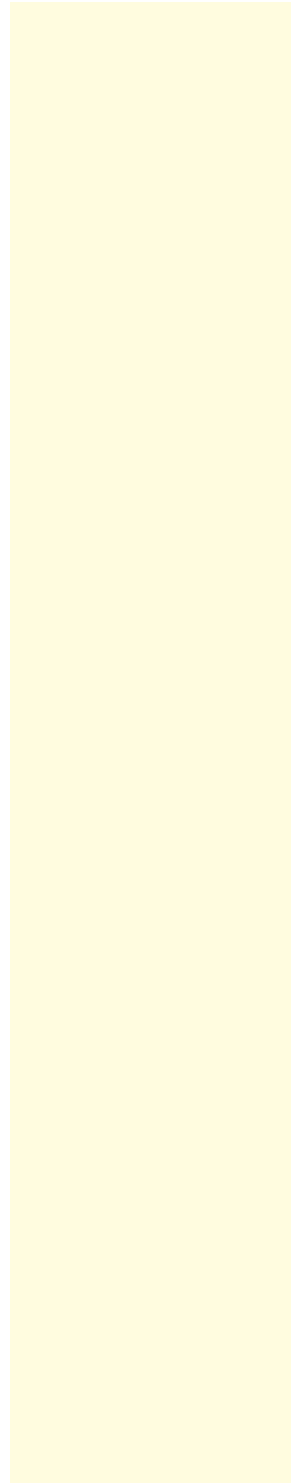
It is the responsibility of *[name of person or job title]* to provide contractors and their employees with the following information if they may be exposed to hazardous chemicals in our workplace:

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

This person will also obtain a material safety data sheet for any hazardous chemical a contractor brings into the workplace.



# Notes:



# *Oregon* OSHA Services

Oregon OSHA offers a wide variety of safety and health services to employers and employees:

## **Consultative Services**

- Offers no-cost, on-site safety and health assistance to help Oregon employers recognize and correct workplace safety and health problems.
- Provides consultations in the areas of safety, industrial hygiene, ergonomics, occupational safety and health programs, assistance to new businesses, the Safety and Health Achievement Recognition Program (SHARP), and the Voluntary Protection Program (VPP).

## **Enforcement**

- Offers pre-job conferences for mobile employers in industries such as logging and construction.
- Inspects places of employment for occupational safety and health hazards and investigates workplace complaints and accidents.
- Provides abatement assistance to employers who have received citations and provides compliance and technical assistance by phone.

## **Appeals, Informal Conferences**

- Provides the opportunity for employers to hold informal meetings with Oregon OSHA on concerns about workplace safety and health.
- Discusses Oregon OSHA's requirements and clarifies workplace safety or health violations.
- Discusses abatement dates and negotiates settlement agreements to resolve disputed citations.

## **Standards and Technical Resources**

- Develops, interprets, and provides technical advice on safety and health standards.
- Provides copies of all Oregon OSHA occupational safety and health standards.
- Publishes booklets, pamphlets, and other materials to assist in the implementation of safety and health standards and programs.
- Operates a Resource Center containing books, topical files, technical periodicals, and a video lending library.

## Public Education and Conferences

- Conducts conferences, seminars, workshops, and rule forums.
- Coordinates and provides technical training on topics such as confined space, ergonomics, lockout/tagout, and excavations.
- Provides workshops covering management of basic safety and health programs, safety committees, accident investigation, and job safety analysis.
- Manages the Safety and Health Education and Training Grant Program, which awards grants to industrial and labor groups to develop training materials in occupational safety and health for Oregon workers.

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**For more information, call the Oregon OSHA office nearest you.**

*(All phone numbers are voice and TTY.)*

### **Salem Central Office**

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### **Bend**

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