

Hazard Communication

In this Workshop, you will learn about:

The key elements of the Hazard Communication Rule:

- Labels
- Safety Data Sheets
- Written Program
- Training



You will also learn how the Hazard Communication Rule is aligned with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Certified Pesticide Applicators:

This Workshop provides three credit hours toward recertification of your Oregon certified pesticide applicator license. (Certified Pesticide Applicators License Information: Oregon Dept. of Agriculture: 503-986-4642).

Note: This material, or any other material used to inform employers of compliance requirements of Oregon OSHA standards through simplification of the regulations should not be considered a substitute for any provisions of the Oregon Safe Employment Act or for any standards issued by Oregon OSHA. Specific questions concerning chemicals or procedures at your workplace may require contacting an Oregon-OSHA consultant or technical representative.

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Hazard Communication Aligned with GHS

1

The notes on this **Workbook Page** include **both** general comments and instructor notes:

GENERAL COMMENTS:

Instructor: Before conducting this **Workshop**, review the **Instructor Notes** related to each page. The **Instructor Notes** can be viewed by selecting <View> on the PowerPoint Ribbon and selecting <Normal> or <Notes Page>.

Overhead Slides: This is a **Workshop** and means the **Attendees**, the **Workbook** and the **Instructor** are the primary learning tools. Please use the companion **Overhead Slides** effectively. It is recommended that the companion **Overhead Slides** be used to assist the attendees focus on new information or a new section of the **Workshop** and to assist visual learners. Advancing **Overhead Slides** is very effective to assist low-literacy **Attendees** stay on track with the **Workbook**. Although the **Instructor Notes** for this **Workshop** indicate which slide to use by the **Title of the Overhead Slide**, most of the **Overhead Slides** have a graphic, table, or image that matches something on the **Workbook Page** making it effortless to determine which **Overhead Slide** to use.

Effective use of **Overhead Slides** includes turning them “on” and “off.” Doing so makes the next **Overhead Slide** more significant. After advancing to a new **Overhead Slide**, wait a few moments to allow the attendees to turn to the corresponding page of the **Workbook**. Then, **Black-out** the overhead projector with the “B” on the keyboard to turn the attention and focus from the projector wall to the workbook and the

discussion. Toggle the “**B**” on the keyboard again to **Light-up** the overhead projector again and advance to the next **Overhead Slide**. (The “**B**” key works only when **PowerPoint** is in **Slide-Show mode**.) Exceptions to the “on/off”: Some **Overhead Slides** should remain “**On**” during the **Workshop** to add emphasis to the discussion and as a visual reference to the topic. For example, the Pictograms discussion should be done with that **Overhead Slide “On.”**

Overhead Slides, the stars: Because of different teaching styles, instructors who don’t like using too many **Overhead Slides**, may elect to use only those that have an image of a **star** which indicate that these Overhead Slides are highly recommended be used. **Starred Overhead Slides** are also referenced in these **Instructor Notes**.

Overheads with links: Some overheads have links. These slides say “**Active Link**.” However, they only work only when **PowerPoint** is in **Slide-Show mode**.

Handouts: Important and useful handouts related to this **Workshop** have been added in the **Appendices**. To conserve resources, please review the appendices before duplicating additional materials. The **Appendices** are located in a separate file. The file is large because the appendices are high-quality intended for duplication. The handouts include **Federal OSHA’s Quick Cards on GHS**. Please repeat this information as you proceed through the sections covering Pictograms, Labels, and SDSs.

INSTRUCTOR COMMENTS FOR THIS WORKBOOK PAGE:

Overhead Slide “Star”: with the “HazCom’s Four Parts”

Instructions for this Workbook Page: Cover the goals. Use the **Overhead Slide** with the “HazCom’s Four Parts” to explain that HazCom is divided into four parts: Labels, Safety Data Sheets, Written Program, and Training. Mention that the four parts work together forming a “**circle of communication about hazardous chemicals**.”

Mention that this **Workshop** also covers the **2012 Globally Harmonized System** requirements adopted by Federal OSHA in CFR 1910.1200. Add that the GHS elements have been “**Aligned**” with HazCom. In other words, there are not two parts to this **Workshop**. Rather, they are “**Integrated**.”

Licensed Pesticide Applicators: This **Workshop** provides 3 recertification credits for Oregon Licensed Pesticide Applicators. Reggie Robb, regina.k.robb@state.or.us 503-947-7443 obtains the required from the Oregon Agriculture Department and provides the form to you before the **Workshop** date if you are an Oregon OSHA employee **and** this **Workshop** is scheduled by Oregon OSHA. However, if you are and Oregon OSHA employee and are conducting this **Workshop** as an “on-site” training request or you are not an Oregon OSHA employee, it is the responsibility of the requestor or you, the instructor to obtain the registration form from the Oregon Department of Agriculture. Questions from applicators about their licenses and credits and forms should be referred to the Pesticides Division at the

Oregon Department of Agriculture: 503-986-4642.

Questions: Oregon OSHA uses a team approach in developing Public Education Workshops. The team leader for this Workshop was Tomás Schwabe. He can be reached by E-mail tomas.schwabe@state.or.us and Phone: 503-947-7436.


Questions about this and other Oregon OSHA materials can be answered by calling Oregon OSHA's main phone number: Toll free number in English: 1-800-922-2689 Toll free number in Spanish: 1-800-843-8086 Web site: www.orosha.org.


know something.) There will be plenty of “share” exercises later. (FYI: The number of people getting all three answers 100 percent correct is usually low.)

When the **Practice** exercise is finished, please mention that Oregon OSHA Compliance Officers probably will ask these **same** questions when they conduct employee interviews during the course of an inspection. Mention that workers who are effectively trained, are more likely to read **SDSs**, **Labels**, use their **PPE**, and take appropriate action in an **Emergency**.

Introduction

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.





EMERGENCY EXPOSURES

HazCom also applies to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under a foreseeable EMERGENCY.

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Oregon OSHA

Hazard Communication Aligned with GHS

3

Overhead Slide: None for the top of the page. **Black-out** the overhead projector with the “B” on the keyboard and focus attention on discussion the key concept of this Workbook Page: **Effective Communication.**

Please focus the class on the **employer** being responsible to **effectively** communicate the hazards by means of Labels, SDSs, the Written Program, and Training.

Example: Employers have been issued citations not because they didn’t provide information but because the training wasn’t effective... as evidenced by the employee interviews showing that worker didn’t know the location of the SDSs or the health effects of the chemicals they use, or what to do in the event of an emergency.

Effective Communication (Training) shall also include information about what to do in the event of an emergency.

Bottom of the page:

Overhead slide: “Emergency Exposures”

In this **Workbook Page**, “emergency” is defined as foreseeable failures such as power outages, equipment failures, rupture of containers, or failure of control equipment and is not meant to encompass fires, or other catastrophic events such as earthquakes.

This **Workbook Page** has the flexibility for you to use your own example(s) of a situation where workers were exposed in a foreseeable emergency.

Or you can this example involving a leak of chlorine gas: A one-ton tank of chlorine gas used to treat irrigation water in an agricultural facility released chlorine gas in the area where workers were performing hand-labor operations. The workers didn't know that the tank held chlorine for purifying irrigation water. The workers detected the smell and effects of chlorine gas but because they had not been effectively trained, they did evacuate the area immediately. Several workers suffered: eye, nose, and throat irritation. Luckily, none suffered permanent injury or illness. They were lucky.

Light the overhead projector with the "B" on the keyboard and advance to the Overhead Slide: "Danger Chlorine Gas" Or, replace this overhead slide with one of your own that illustrates a foreseeable emergency from your own knowledge or experience.

Please reinforce the differences between normal versus foreseeable exposures. Do a brief Q&A:

.

Foreseeable?

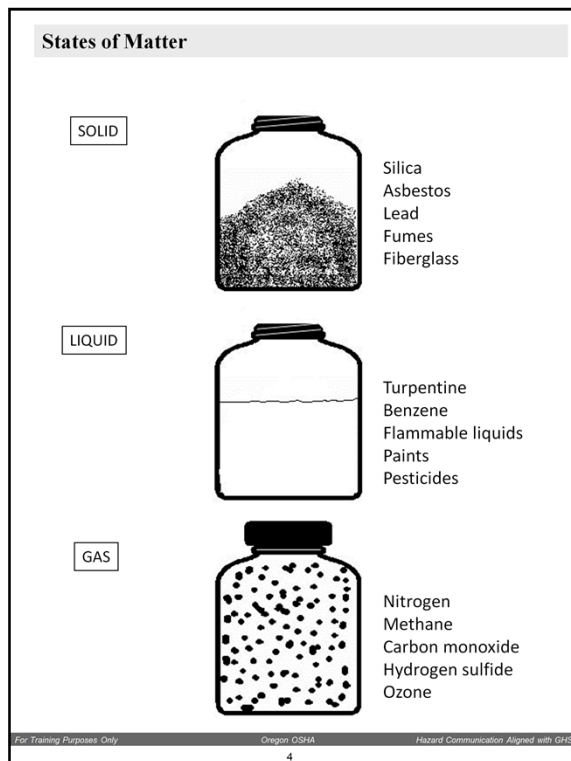
Q: Is a leaking tank foreseeable?

A: Yes? This is the answer you're looking for. Move on.

Q: Should the employer train workers on what do in the event of an emergency release of chlorine gas?

A: Yes? This is the answer you're looking for. Move on. Or,

A: No? If you get some "nos" Conduct a brief discussion. Bring the classroom into the discussion. But be brief, there's still much more to cover in the **Workshop**.



Overhead: "States of Matter"

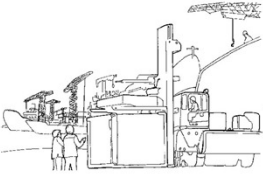
Chemicals come in 3 states: **SOLIDS, LIQUIDS, and GASES.**

Please emphasize that Hazard Communication covers the **3 states** of matter (some references include Plasma and Bose-Einstein Condensate as the other two states of matter but for now, the basic 3 are enough.) Some employers may not use chemicals in all 3 states. For instance they may not use gases very often.

Engage the class. Please share things you know about chemicals. Example: Lead can be present in both work and home: Lead can be found in old paint, children's jewelry and toys, mini-blinds, some imported food cans (the cans are sealed with lead-based solder), hobbies such as pottery, stained glass, and fishing tackle.


Please consider making your explanation about some of these chemicals as practical as possible. Emphasize the location or process where some of these chemicals are used. For example, cancer-causing benzene exposures occur while using benzene-based solvents. Respiratory disease caused by fiberglass dust can occur when making bathtubs and boats. Death-inducing gases such as methane and hydrogen sulfide in manure pits in dairies.

Uses and hazards



Chemicals are necessary:

- GLUES help build.
- SOLVENTS help clean.
- OILS help protect.



However, chemicals can also be dangerous:

- GLUES can cause skin allergies (epoxy).
- SOLVENTS can cause cancer (benzene).
- OILS can cause skin ulcers and eye damage (creosote).

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5

Overhead: “The dose makes the poison”

Please cover the importance of chemicals to industry, construction, manufacturing, etc. that provide the many conveniences of modern life. But also cover that those same chemicals can harm us if we are not adequately protected.

“The dose makes the poison”, a principle of toxicology first expressed by Paracelsus, a Swiss-German born in 1493. He was a physician and botanist and also coined the term “gas” and “chemistry”. “The dose makes the poison”, means that a substance can produce the harmful effect associated with its toxic properties only if it reaches a susceptible biological system within the body in a high enough concentration (dose).

And what helps protect us from these “doses”? Correct . . . Labels, SDS, Written Hazard Communication Program, and Training.

Trivia:

Which were the first rules adopted after Congress passed the OSHA Act in 1970?

First safety rule adopted: **Excavation.**


First health rule adopted: **Hazard Communication.**


The Point of this Page: We have at our disposal the tools to control or eliminate most of the causes of occupational illness. We have laws (OSHA), we have science CDC/NIOSH, we have modern industrial practices, and we have better communication systems than at

any time in history. All we have to do is put these tools to work effectively.

Dangers


Chemical hazards arise when they ENTER the body through the NOSE, MOUTH, EYES, and SKIN.





Where can you find more information about chemicals and target organs?

The FOUR parts of HazCom are designed to assist you in providing the information about hazardous chemicals in the workplace.



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Oregon OSHA
Hazard Communication Aligned with GHS

6

Overhead Slide “Star”: “Routes of Entry”

Discuss exposure through the routes of entry.

Reinforce the health and physical effects of **Substances or Mixture of Substances**.

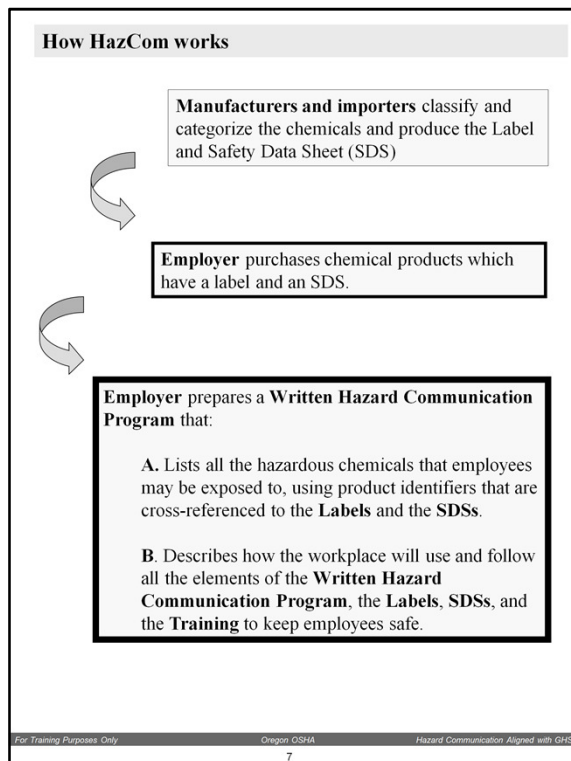
Ask the class if they know that some chemicals target certain organs.

Example: A solvent with a chemical called benzene: After benzene enters the body through skin or nose, the benzene targets the bone marrow: After benzene gets to the bone marrow, it causes a cancer know as leukemia.

Engage the class. Reinforce the PRACTICAL side of the rule. Ask if anyone knows the target organs of other chemicals such as a) lead, b) silica, or c) carbon monoxide. The answers are respectively: a) nervous system, lungs, red-blood cells.

Hazard Communication Circle:

Emphasize again how the four parts work together forming a “**circle of communication about hazardous chemicals**” to help the employer protect workers from hazardous chemicals. Read out the four elements: Labels, SDS, Written Program, and Training.



Overhead Slide “Star”: How HazCom Works (HazCom’s Four Parts Circles)

When you turn to this **Workbook Page**, emphasize how **each** of the **Four Main Parts** of HazCom plays a part in helping workers stay safe and healthy.

The Written Hazard Communication Program is the “master plan” that the employer sets up that says who is in charge of making sure primary and secondary labels are on the containers and pipes, SDSs are available and up-to-date, who does the training, who coordinates with contractors, and who determines the hazards of non-routine tasks.

Labels: Realistically, labeling is not difficult but is time-consuming to ensure it’s done right. Tasks include secondary containers, stationary containers, and replacing illegible or missing labels. Requires good accountability to keep from getting cited by Oregon OSHA Compliance Officers. Year after year, Labeling (or lack thereof) is always listed in the “top 25” of violations cited.

Safety Data Sheets: They contain the information necessary to assist the employer in training the worker so they don’t get harmed by the chemical. They contain key information that all workers should know such as the health and physical effects, the PPE to use, and what to do in the event of an emergency.

Training: “Where the rubber meets the road.” Encourage employers to make the training “real” by showing the worker how to use the chemical safely and then having the worker demonstrate. Verify that the training was effective by asking the workers questions. Have


them demonstrate that they know how to put on PPE correctly, how to wash off, what to do in an emergency, etc.

The big picture

Are all hazardous chemicals in the workplace covered by the Hazard Communication Rule?

Please circle the correct answer:

YES **NO**



HazCom does not apply to:

- ☐ Hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) when subject to regulations issued under that Act by the Environmental Protection Agency (EPA).
- ☐ Any hazardous substance as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) that is the focus of remedial or removal action being conducted under CERCLA in accordance with EPA regulations.
- ☐ Tobacco or tobacco products.
- ☐ Wood or wood products, including lumber that will be used whole (not processed or cut, generating dust) where the manufacturer can establish that the only hazard is the potential for flammability or combustibility. Wood or wood products that have been treated with a hazardous chemical covered by this standard are not exempted.
- ☐ Articles – a manufactured item that does not pose a physical or health risk when used normally.
- ☐ Retail food or alcoholic beverages, such as those sold in grocery stores or restaurants, or consumed by employees in the workplace.

Continues

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Oregon OSHA

Hazard Communication Aligned with GHS

8

Overhead Slide “Star”: “Are all chemicals covered?” – Paint bucket

The correct answer is “no.”

This list of exemptions doesn’t mean that the chemicals covered are not dangerous, it means that many chemicals on this list are either covered by another government agency or are chemicals/products that don’t present a health/safety risk.

Example: The exempted class “**article**” is a manufactured item other than a fluid or particle which is formed to a specific shape or design during manufacture and under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical and does not pose a physical hazard or health risk to employees.

Hold up and display to the Attendees something like an eraser, a pair of eyeglasses, a computer mouse as examples of “**articles**.”

The big picture

HazCom does not apply to (continued):


- Any drug, as defined in the Federal Food, Drug, and Cosmetic Act when it is in solid, final form such as tablets or pills; retail, over-the-counter drugs, and other drugs, such as first-aid supplies, intended for employees in the workplace.
- Cosmetics packaged for retail sale to consumers and cosmetics used by employees in the workplace.
- A consumer product, as defined in the Consumer Product Safety Act, where the employer can show that it is used in the workplace for the purpose intended by the manufacturer and resulting in an exposure equivalent to the range of exposures (duration and frequency) that could reasonably be experienced by consumers.

DISCUSSION:

Mechanics sometimes apply milk of magnesia to the threads of sparkplugs to prevent them from "seizing" to the motor.

Exempt because its covered by FDA? Used for the purpose intended by the manufacturer?

Would the employer need to add it to the list of chemicals, get an SDS, and conduct training on the hazards?



- Nuisance particulates (dust) that the chemical manufacturer can establish pose no covered physical or health hazard.
- Ionizing and nonionizing radiation.

Nonionizing radiation includes ultra violet, infrared, and microwave. It burns tissue including the eyes.

Cell phones work on the microwave frequency. Phone companies say they are safe. More research is being done.
- Biological hazards.

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Oregon OSHA

Hazard Communication Aligned with GHS

9

Overhead Slides – 2 for this Workbook Page: “Are all chemicals covered?” – Paint bucket and **Overhead Slide “Star”:** “Discussion” Milk of Magnesia

Discuss the **consumer product** in detail. It is a major category of exempt hazardous chemicals.

Examples of chemicals that may be exempted under this category include solvents, oils (WD40), cleaners (Windex), paints (rattle cans).

The key to the discussion is use of products in the workplace for the purpose intended by the manufacturer and resulting in an exposure equivalent to the range of exposures (duration and frequency) that could reasonably be experienced by consumers.

Speaking to the class: “It’s not what you have stored in the supply room. You may have a case of 24 bottles because they were on sale. It’s how much you are using. This exemption is sometimes called the “dumpster rule” because if you look in the dumpster (which was emptied 3 days ago), and you see 7 empty cans of WD-40, you are using more than what could reasonably be experienced by consumers.”

Please expect active participation with this exemption. Recommend that if they aren’t sure whether to exclude a product its better to add it to their HazCom Program.

Overhead Slide “Discussion” – Milk of Magnesia


The answer is “yes.” The employer would need to add this product to the HazCom program because its not being used for the purpose intended by the manufacturer.

The big picture

Unopened, Sealed Containers

There is a **simpler procedure** if workers handle only unopened, sealed containers under normal conditions of use in places like warehouses or retail stores.

Answer: **TRUE FALSE**



Handling unopened sealed containers:

- ☐ Ensure that labels on incoming containers of hazardous chemicals are not removed or defaced.
- ☐ Maintain copies of any safety data sheets that are received with incoming shipments of the sealed containers of hazardous chemicals.
- ☐ 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.
- ☐ Ensure that the safety data sheets are readily accessible during each work shift to your employees when they are in their work areas.
- ☐ Ensure that employees are provided with information and training to the extent necessary to protect them in the event of a spill or leak of a hazardous chemical from a sealed container.

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10

Overhead Slide: “Warehouses and retail stores”

Answer: TRUE

Warehouses and Retail Stores have simpler procedures because the probability of exposure when handling unopened and sealed containers is lower than when using, mixing, applying, those chemicals.

Most of the injuries in Warehouses and Retail Stores are ergonomic, not exposure to hazardous chemicals.

The big picture



There is an even **simpler procedure** if workers handle chemicals in laboratories.

The Correct Answer is:

TRUE FALSE

Handling chemicals in laboratories:

- ☐ Ensure that labels on incoming containers of hazardous chemicals are not removed or defaced.
- ☐ Maintain any safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible to laboratory employees during their shift when they are in their work areas.
- ☐ Ensure that employees are provided all the required information and training, except for the location and availability of the written hazard communication program.
- ☐ Ensure that any containers of hazardous chemicals leaving the laboratory are properly labeled and that a safety data sheet is provided in accordance with the Hazard Communication Rule.

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Oregon OSHA

Hazard Communication Aligned with GHS

11

Overhead Slide: “Labs”

Answer: TRUE

Similar to the discussion about lower probability of exposure to workers in Warehouses and Retail Stores in addition to the fact that Lab workers are usually highly trained in the handling of hazardous chemicals.

GHS – What is it?

Globally Harmonized System of Classification and Labeling of Chemicals


Is GHS a Standard? No.
Is GHS a Rule? No.

GHS is a *mechanism* to meet the basic requirement of any hazard communication system, which is to decide if the chemical product produced and/or supplied is hazardous and *to prepare an internationally harmonized Label and a Safety Data Sheet.*


OSHA is the first agency in the United States to adopt the GHS.

Other United States agencies that require classification and labeling of chemicals include:

- Consumer Product Safety Commission (CPSC) (includes the Federal Hazardous Substances Act).
- Department of Transportation (DOT) (includes transportation of hazardous materials).
- Environmental Protection Agency (EPA) (includes safe water, air, and use of pesticides).



CPSC, DOT, EPA and other agencies have NOT yet adopted GHS.



GHS was created by the 193 member countries of the United Nations.

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12

Overhead Slide “Star”: “GHS” - United Nations flag

The main point of GHS is that because of ever increasing international shipping of hazardous materials it is necessary to have a global system of **Classifying, Categorizing, and Labeling** of chemicals.

GHS is expected to be a changing, improving system as global commerce and other factors require or call for changes.

OSHA adopted GHS in 2012.

Who else has adopted GHS? Several nations of the world, including many in Europe who adopted GHS several years ago.

As OSHA did in 2012, the other United States agencies named on this **Workbook Page** would also have to make changes to their respective laws to align them with GHS. (Perhaps if OSHA’s aligning their HazCom with GHS goes smoothly, other agencies will also adopt GHS.)

Please refer the **Attendees** to the agencies mentioned on this **Workbook Page** or others not mentioned such as MSHA, if they have specific questions about how GHS will affect the rules they handle.

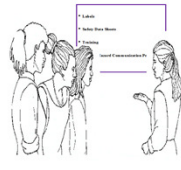
EPA regulated pesticides: Later on in this **Workbook**, in the Safety Data Sheet section, there is a discussion point about how EPA will deal with GHS.


Hazard Communication Aligned with GHS

ADVANTAGES

Will aligning OSHA's Hazard Communication Rule with GHS bring advantages?

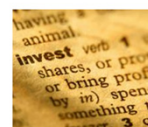
Yes, it will benefit workers by reducing confusion about chemical hazards in the workplace, **facilitating safety training and improving understanding of hazards**, especially for low literacy workers.





Yes, the U.S. Department of Labor estimates that across the country, the revised rule will **prevent 43 deaths and 585 injuries each year**.

Yes, it will **reduce trade barriers** and result in estimated annualized benefits in productivity improvements for American businesses that regularly handle, store and use hazardous chemicals, as well as **cost savings of \$32.2 million** for American businesses that periodically update safety data sheets and labels for chemicals covered under the standard.



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Hazard Communication Aligned with GHS

13

Overhead Slide “Star”: “Advantages”

The text on this **Workbook Page** comes from the Federal OSHA’s GHS web page.

Please let Attendees know that there are some very good resources about GHS on the Federal OSHA/GHS website. It is recommended that you visit the Federal OSHA/GHS website before conducting this workshop. Federal OSHA has many tools for complying and meeting GHS such as fact sheets, quick cards, Q&A, videos, webinars, downloadable pictograms, links, and press releases. <https://www.osha.gov/dsg/hazcom/index.html>.

Of many, 3 areas were selected to highlight the **Advantages of GHS**: Training, Injuries & Illnesses, and Economic.

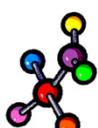
Example Q&A for each of the three images on this **Workbook Page**:

Q: Do you have low literacy workers? If so, how do you currently train them? Do you use “show & tell?”


Q: Do you know of anyone who’s been hurt or become ill from chemicals?

Q: Who uses the SDSs in your company? Would it be more effective if SDSs looked the same? And had the same information in each of the 16 sections? If “yes,” how?


Classify & Categorize chemicals



Substance, or mixture of substances are classified by the manufacturer or importer




Label and Safety Data Sheet are developed



Training on safe use

Who's responsible to classify and categorize chemicals?

A: The **manufacturer** or the **importer**
 B: The **distributor**
 C: The **end-user**



Answer:

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Oregon OSHA
Hazard Communication Aligned with GHS

14

Overhead Slides – 2 for this Workbook Page: “Classify and Categorize This” and “Who is Responsible to Classify and Categorize”

Please cover the **MAIN POINT** of the following **Workbook Pages** is that if the end users (employers and employees) know what it means when manufacturers and importers do to classify and categorize chemicals, they will gain a much greater level of **respect for the Labels and the Safety Data Sheets** because they are based on science (and not as some say about the old MSDSs, written by personal injury attorneys.)

The **Classification and Categorization** of substances and mixtures of hazardous chemicals is the basis for the new **Labels** (with Pictograms) and the new **Safety Data Sheets (SDSs)**.

This is the most far-reaching change in HazCom. With the GHS mechanism, manufacturers and importers must use specific criteria to classify and categorize the hazards of the substances and mixtures of the products they make or import.

The winner with GHS is the end-user. It means that the hazards of products from other parts of the world are **more likely** to have consistent Classification, Categorization, Labeling, Pictograms, and Safety Data Sheets.

Who is responsible . . . ?

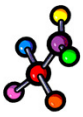
Answer: A. The manufacturer and importer is responsible to classify and categorize the chemicals.

Please emphasize that it is the manufacturer and importer that is responsible to classify and categorize the chemicals. It is likely that **Attendees** will ask what happens if an **employer** or **worker** mixes two or more different hazardous chemicals. Does that make them a “manufacturer?” The answer is usually “no.”

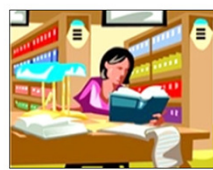
Speaking to the class: “If you mix rum and coke together you don’t get a new chemical, you get a “rum and coke”.”

Most employers who mix products that have already been classified, categorized, and labeled, by the manufacturer are not “making” chemicals, they are “using” chemicals. Mention that they should review the respective SDSs and determine the measures necessary to ensure worker safety. If an employer isn’t not sure about what they are thinking of mixing (possibly mixing incompatibles), advise them to first get information by contacting the manufacturers of the chemicals or other sources of help.


Classify & Categorize – how it works



The manufacturer or importer identifies and reviews relevant data regarding the hazards of the substance or mixture.



When classifying chemicals, the manufacturer or importer shall consider the full range of available scientific literature and other evidence concerning the potential hazards.



I know its bad but how bad?

If the manufacturer or importer decides that the substance or mixture will be classified as a **hazardous substance**, the next step is to **categorize the hazard**.

In other words, the *degree* of health or physical harm that the chemical or mixture can cause.

Where is the criteria for each hazard class and hazard category?

The classification shall be in accordance with **Appendix A** – Health Hazards and **Appendix B** – Physical Hazards of 29 CFR 1910.1200. ➔ more ➔

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Hazard Communication Aligned with GHS

15

Overhead Slide “Star”: “How It Works”

This **Workbook Page** explains in two simple processes with corresponding graphics, how the **Classification and Categorization** of substances and mixtures of hazardous chemicals works.

This **Workbook Page** also identifies **Appendix A** and **Appendix B** of the HazCom Rule CFR 1910.1200 for the first time. These two appendices are the **basis** of the GHS. **Appendix A** covers the Health Hazards and **Appendix B** covers the Physical Hazards.

The next few pages provide simplified examples of how this classification and categorization process works. It is recommended that you review or, at least browse, these Appendices before covering this section of the **Workshop**:
http://www.orosha.org/pdf/rules/division_2/2Z_1200_haz_com.pdf has the complete rule. Scroll down to the Appendices.

Its recommended to remind **Attendees** that is the **manufacturer and importer** who is responsible to do the **classifying** and **categorizing** of these hazardous chemicals.

Classify & Categorize – Appendix A & B

Appendix A has the following HEALTH hazard categories:

- Acute toxicity (any route of exposure)
- Skin corrosion/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)
- Aspiration toxicity

Appendix B has the following PHYSICAL hazard categories:

- Explosive
- Flammable (includes aerosols, gases, liquids, and solids)
- Oxidizers (includes gases, liquids, and solids)
- Gases under pressure
- Self-reactive substances
- Pyrophoric (includes liquids and solids)
- Self-heating substances
- Substances that emit flammable gases in contact with water
- Organic peroxides
- Corrosive to metals

The Health Hazard Pictograms

Which pictogram is both a Health and Physical hazard?

The Physical Hazard Pictograms

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Overhead Slide “Star”: “Appendix A & B”

In your instructions or comments for this page, link the **Health** Effects in **Appendix A** with its **four Pictograms** and . . . the **five Pictograms** associated with the **Physical** Effects in **Appendix B**.

The “Corrosive” Pictogram is both a Health Effect (for skin tissue and/or the eye) and a Physical Effect (on metals).


Please read or have the **Attendees** read the categories. Allow some time for this. Please mention that the GHS skillfully incorporated everything “bad” that can happen into 9 pictograms.


Some **Attendees** may find it interesting that these simple but significant pictograms (only 8 are OSHA’s) managed to incorporate the hazards from radioactive elements and bloodborne pathogens!

Before going to the next **Workbook Page**, mention that each of the pictograms have names and the names will be covered shortly.

Classify & Categorize Oatey PVC Glue


Oatey PVC Regular Clear Lo-VOC Formula – Contents:
Tetrahydrofuran, Methyl ethyl ketone, Cyclohexanone, Acetone, PVC (Chloroethylene, polymer)






Oatey Company identifies, reviews relevant data, and classifies the hazards of the substance or mixture:


Oatey Company categorizes the *degree* of health or physical harm that the chemical or mixture can cause.




CLASS	CATEGORY
Acute Toxicity Oral	Category 4
Acute Toxicity Dermal	Category 4
Acute Toxicity Inhalation	Category 4
Eye Damage/Irritation	Category 2A
Carcinogenicity	Category 2
Specific Target Organ Toxicity Single Exposure	Category 3
Flammable Liquids	Category 2

Oatey uses this information to produce the Label, Safety Data Sheet, and to make Training effective:






Label



SDS



Training on Safe Use

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Oregon OSHA
Hazard Communication Aligned with GHS

Overhead Slides 2: “CLASSIFY & CATEGORIZE Oatey PVC Glue” and Overhead Slide “Star”: “DONE!”

This **Workbook Page** uses Oatey PVC Glue to illustrate how the Classification and Categorization works.

Using Appendix A and B:

Step One: The **Manufacturer** (Oatey), identifies, reviews, the relevant data of the contents: Tetrahydrofuran, Methyl ethyl ketone, Cyclohexanone, Acetone, PVC (Chloroethylene, polymer). If the **Manufacturer** finds that the contents are **Hazardous Chemicals**, they have met the first part of GHS which is **Classifying the substance(s) or mixture**.

Step Two: Still using Appendix A and B, the **Manufacturer** (Oatey) **Categorizes** the substance(s) or mixture. In other words, it determines “how bad” is the health and physical effects.

Point of interest on Oatey PVC Regular Clear Lo-VOC: All are Health Effects except one Physical Effect: Flammable Liquid.

Q: Ask the class if Oatey found a component in the Glue that causes cancer. The

answer is “yes,” Carcinogenicity.

Please show the **Overhead Slide** “Done!” and mention how the Classification, Categorization, Labels, SDSs and Training on Safe Use are ready for distribution. When an Employer purchases the Oatey Glue, he/she will have access to the label, the SDS, and have important tools to conduct training on safe use.

Q: Ask the class if they find this process Logical? Effective? Comments or Questions?

GHS Categories – Health hazard example

Under GHS, Health and Physical Hazards are categorized by degree of harm that they cause.


Appendix A Health Hazard for Eye Damage/Irritation

Serious eye damage is tissue damage in the eye, or serious physical decay of vision, following application of a substance to the anterior surface of the eye which is not fully reversible within 21 days of application.

GHS categorizes **serious eye damage** as:

Category 1 (Signal word: **Danger**)

Example: Sodium hydroxide (lye) for unclogging drains and making soap.



CORROSION


Eye irritation is changes in the eye following application of a substance to the anterior surface of the eye which are fully reversible within 21 days of application.

GHS categorizes **eye irritation** as:

Category 2A if changes in the eye fully reverse within 21 days. (Signal word: **Warning**)

Category 2B if changes in the eye fully reverse within 7 days. (Signal word: **Warning**)

Example: some solvents for cleaning and degreasing.



EXCLAMATION MARK

NO PICTOGRAM REQUIRED FOR CATEGORY 2B

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Overhead Slide “Star”: “Appendix A: Categorize a Health Effect”

The prior pages of this **Workbook** emphasized the **Classification and Categorization** process as a whole.

The next 2 **Workbook Pages** will cover how the **Categorization** process works in more detail.

This **Workbook Page** will show how **Categorization** works with a **Health Effect**. The next **Workbook Page** will show how **Categorization** works with a **Physical Effect**.

Next, mention that for this example, lye (sodium hydroxide) is being used as an example of how a chemical is **Categorized (how bad)** for “damage to the eye.”

Read or have the **Attendees** read the definitions for “**serious eye damage**” and for “**eye irritation**” on this **Workbook Page**.

After the definitions have been covered, point out that lye is **Categorized** as Category 1 “serious eye damage.”

Now, point out that other products such as general use solvents which have less harmful substances are not as harmful to the eye. “Eye irritation” has two categories: 2A and 2B. and Focus the **Attendees** attention on how different Pictograms and Signal Words CHANGE for each of the Categories to reflect the range of danger.

Category 1 = Corrosion and “Danger”

Category 2A = Exclamation Mark and “Warning”

Category 2B – No pictogram and “Warning”

An important **Point** is that GHS will do a much better job of effectively **Communicating Hazards** through the **Categorization** of hazards than the old 1994 HazCom rule.




GHS Categories – Physical hazard example

Under GHS, Health and Physical Hazards are categorized by degree of harm that they cause.

Appendix B Physical Hazard for Flammable Liquids.

DEFINITION
Flammable liquid means a liquid having a *flash point* of not more than 93°C (199.4°F).


Flash point means the minimum temperature at which a liquid gives off vapor in sufficient concentration to form an ignitable mixture with air near the surface of the liquid.

Category	Criteria	Signal Word	Pictogram
1	Flash point < 23°C (73.4°F) and initial boiling point ≤ 35°C (95°F)	Danger	
2	Flash point < 23°C (73.4°F) and initial boiling point > 35°C (95°F)	Danger	
3	Flash point ≥ 23°C (73.4°F) and ≤ 60°C (140°F)	Warning	
4	Flash point > 60°C (140°F) and ≤ 93°C (199.4°F)	Warning	None

Appendix C

Which Category of Flammable Liquid is Oatey PVC Regular Clear Lo-VOC Formula?
 (Hint, look back a page or two.)

Answer: _____



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19

Overhead Slide “Star”: “Appendix B: Categorize a Physical Effect”

Highlight the fact that they are **reviewing** the Pictograms associated with the Physical Effects (Flammables).

Next mention that for this example, “flammable liquid” is being used as the example.

Compare and Contrast **Category 1 to Category 4**:

First, read out loud the definitions of Flammable Liquid and Flash Point.

Next, point that Category 1 flammable liquid has a Flash point at temperatures **below** 73.4°F and boils at temperatures **below** 95°F. (That’s makes it **very** flammable.)

Next, contrast that a Category 4 flammable liquid has a Flash point at temperatures **between** 40°F and at or below 199.4°F.

Question: Ask the class to go back a page or two to see at which category of flammable liquid is the Oatey Glue.

Answer: Category 2

Also, point out the differences in the Pictogram and the Signal Word for each of the categories. There are two “Danger” and two “Warning”

The **Workshop** will now **transition from** Classification and Categorization **to** Labels (and their Pictograms), SDSs, Written Hazard Communication Program and Training.

IMPORTANT: Emphasize that the Classification and Categorization is the BASIS of the GHS Labels, SDSs which follow next. Convey that Labels and SDSs should be more meaningful now that they know how substances and mixtures are classified and categorized under HazCom 2012 (GHS).

Pictograms

Parts of a pictogram:

- Border
- Background
- Symbol

The pictogram BORDER shall be this color? Circle the correct one:

BLACK
RED
GREEN

The pictogram BACKGROUND shall be this color? Circle the correct one:

YELLOW
BLUE
WHITE

The pictogram SYMBOL shall be this color? Circle the correct one:

ORANGE
BRIGHT GREEN
BLACK

Something to know:

The Environmental Pollutant Pictogram is part of GHS but is not regulated by OSHA.

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20

Overhead Slide “Stars” 2: “Pictogram Parts” (Contains 3 Animation On Click to reveal the three colors one at a time.)” and “Pictograms” with the nine (9) Pictograms.

Ask the Attendees to “guess” which colors are associated with each Pictogram while showing **Overhead Slide “Pictograms”** which has 3 “Animations On Click” to reveal the correct answers. When completed, show the second **Overhead Slide**, “Pictogram Parts.”

Border = Red

Background = White

Symbol = Black

The Environmental Pollutant Pictogram. If you want, ask the class a trick question:

”If not OSHA, who is the U.S. agency that has jurisdiction over the 9th Pictogram, Environmental Effects?” Answer: **Attendees** will likely answer **EPA**! Its a trick question because EPA **has not** adopted GHS. This means that the Environmental Effects Pictogram is without a “home.” (This is not true for other countries that have fully adopted GHS.)

GHS Label – Appendix C

The label elements shall be in accordance with **Appendix C** – of 29 CFR 1910.1200.

The labels shall include:

- Product Identifier (product name)
- Supplier Identification (if product is shipped)
- Signal Word
- Hazard Statement(s)
- Hazard Pictograms(s)
- Precautionary Statement(s)

Something to know:

- ❖ If the signal word “**Danger**” is included, the signal word “**Warning**” shall not appear.
- ❖ If the skull and crossbones pictogram is included, the exclamation mark pictogram shall not appear *where it is used for acute toxicity*.
- ❖ If the corrosive pictogram is included, the exclamation mark pictogram shall not appear *where it is used for skin or eye irritation*.
- ❖ If the health hazard pictogram is included for respiratory sensitization, the exclamation mark pictogram shall not appear *where it is used for skin sensitization or for skin or eye irritation*.

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21

Overhead Slide “Star”: “Labels” – use for this and next page . . .

Appendix C is **the Appendix** in the new 2012 HazCom rule **for the Label**.

Use the Overhead Slide to show the different required elements.

The new 2012 HazCom Label has some significant changes. The most obvious is the Pictogram. Emphasize that with GHS labels, Employers and Workers will be able to improve their safety and health programs.

For example, an employer can determine which workers can handle certain chemicals based on the pictogram. “For example, if the pictogram on the label has a Skull and Crossbones, only “Roy, Linda, and Reggie” can handle it because they have *special* training.”

PRECEDENCE:

Please mention OSHA didn’t want certain words (Warning AND Danger appearing together) and certain symbols which together could cause doubt as to the hazard. Mention that the “Exclamation Mark” is “kicked off” the label under three (3) unique circumstances.

Reinforce that it is the Manufacturer or the Importer that is responsible for ensuring that the Label is correct and accurate.

Labels

Please FIND the three elements that must be located *together* on the label:

- Signal Word
- Precautionary Statements
- Pictogram(s)

SAMPLE LABEL

CODE _____
Product Name _____


Company Name _____
Street Address _____
City _____ State _____
Postal Code _____ Country _____
Emergency Phone Number _____

Keep container tightly closed. Store in a cool, well-ventilated place that is locked.
Keep away from heat/spark/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 (CO₂) fire extinguisher to extinguish.

First Aid
If inhaled: Call Poison Center.
If on skin (or hair): Take off immediately any contaminated clothing. Rinse skin with water.

Hazard Pictograms



Signal Word
Danger

Highly flammable liquid and vapor.
May cause liver and kidney damage.


Hazard Statements

Precautionary Statements

Supplemental Information

Directions for Use _____

Fill weight: _____ Lot Number: _____
Gross weight: _____ Fill Date: _____
Expiration Date: _____



Something to know:

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.

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Overhead Slide “Star”: same as prior “Labels”

Use the **Overhead Slide** to show that the **Signal Word, Precautionary Statements and Pictograms** must be “close together” on the label.










Please add that the new GHS Labels will not look exactly like the one on this **Overhead Slide**. Add that this only a Sample Label.

The **Supplemental Information** section on the label (lower right in this example), is for the purpose of extra information under these conditions: Supplementary information on the label is limited to when it provides further detail and does not contradict or cast doubt on the validity of the standardized hazard information. Also, where the chemical manufacturer, importer, or distributor chooses to add supplementary information on the label, the placement of supplemental information shall not impede identification of information required by this section.

Something to know: Since the “begining of time” (actually 1970 when OSHA wrote the Hazard Communication Standard), Labels and SDSs (former MSDSs) have always been required to be in English so they can be used for Emergency Responders and Medical Personnel.

Advice on other languages: If employers need to provide label and SDS information in other languages, recommend that they contact the manufacturer to see if they have them in other languages. Sometimes a company has subsidiaries in other counties and labels and

SDSs may be available from them. If not, you can recommend that the employer translate the main elements onto cards and create their own “fact sheets.”

Pictogram Name	Pictogram	Hazards
Flame		Flammables Self Reactives Pyrophorics Self-heating Emits Flammable Gas Organic Peroxides
Flame over circle		Oxidizers
Exclamation mark		Irritant Dermal Sensitizer Acute Toxicity (harmful) Narcotic Effects Respiratory Tract Irritants
Exploding bomb		Explosives Self Reactives Organic Peroxides
Corrosion		Corrosives
Gas cylinder		Gases Under Pressure
Health hazard		Carcinogens Respiratory Sensitizer Reproductive Toxicity Target Organ Toxicity Mutagenicity Aspiration Toxicity
Skull and crossbones		Acute Toxicity (severe)
Environment		Part of GHS, but not Hazard Communication, 29 CFR 1910.1200.
<small>For Training Purposes Only Oregon OSHA Hazard Communication Aligned with GHS</small> 23		

Overhead Slide: “Pictograms” (Contains 1 Animation On Click)” The animation on this slide has a duration of 5 seconds.

After the **Overhead Slide** completes its animation, Black-Out the **Overhead Slide** with the “B” key on the keyboard. The purpose of this **Workbook Page** is for the **Attendees** to begin memorizing the Chemicals covered by each of the Pictograms. Therefore, please Black-Out the **Overhead Slide** to reduce distraction.

Start this exercise by guiding the **Attendees** to identify each of the Pictograms as a HEALTH or PHYSICAL effects. Recall that there are 4 Health Effects and 5 Physical Effects Pictograms.

Ask them to place an “H” for Health Effects or a “P” for Physical Effects in the same box as the Pictogram. Mention that **Attendees** can go back a few pages in the **Workbook** if they need to for the answers.

On this **Workbook Page**, this the correct order:

Flame: P

Oxidizer: P

Exclamation Mark: H

Exploding Bomb: P
Corrosion: Both H and P
Gas Cylinder: P
Health Hazard: H
Skull and Crossbones: H









Reminder to the **Attendees**: There are 4 Health Pictograms and 5 Physical Pictograms (and both share Corrosive).

Next, ask **Attendees** to read the Chemicals covered for each Pictogram and when they majority have completed the task, proceed to the following **Workbook Page**. Point out that some Pictogram have only one chemical covered (Oxidizer, Gases Under Pressure, Acute Toxicity) while other Pictograms have many chemicals covered (Flame and Exclamation Mark and Health Hazard).

Pictograms

Group Game: Match pictograms with their meanings

Without looking at the previous page, write the appropriate letter for the pictogram that corresponds to each chemical category.

_____	Flammables		A
_____	Narcotic effects		B
_____	Oxidizers		
_____	Self reactives		C
_____	Self-heating		
_____	Irritant		D
_____	Organic peroxides		
_____	Explosives		E
_____	Gases under pressure		
_____	Carcinogen		F
_____	Dermal sensitizer		
_____	Acute toxicity (harmful)		G
_____	Respiratory tract irritation		
_____	Self Reactives		H
_____	Corrosives		
_____	Respiratory sensitizer		
_____	Reproductive toxicity		
_____	Target organ toxicity		
_____	Mutagen		

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24

Overhead Slide “Star”: “Pictogram Game”

If the attendees are not already grouped by tables, ask the **Attendees** to group themselves in small groups. Ask them to introduce themselves.

Start the Group Game (exercise.) Read the Instructions. Please allow sufficient time for this exercise to run its course, please do not cut it short.


While the **Attendees** are working on the answers, turn to the **Appendix** for the **Answer Key** to this exercise.

Please reinforce the importance of this exercise by reading out-loud, all the answers.

Appendix Resource: This **Workbook** contains a copy of the OSHA “Quick Card” for GHS Pictograms in the **Appendix**. Before proceeding to the next **Workbook Page**, invite the **Attendees** to the **Appendix** and show them that this game/exercise is in the **Appendix** for them to use for future training.


Labels

PRIMARY containers must have the complete GHS label.



SECONDARY containers must be labeled, tagged, or marked with either:

- All the information specified for the labels on shipped containers,
- or,
- The product identifier and words, pictures, symbols, or a combination that provide at least general information about the hazards of the chemicals.



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Oregon OSHA

Hazard Communication Aligned with GHS

25

Overhead Slide “Star”: “Labels” for the next pages covering labels.

Please remind the **Attendees** that Primary Container Labels are based on the Classification and Categorization in Appendix A and Appendix B.

Effective hazard communication means that if chemicals are moved from a Primary Container, it is important (critical in some cases), that the precautionary statements on the Primary Container Label are not lost.

Please mention/Read the words under Secondary containers. Mention them specifically, many employers get cited for this hazard.

Labels

STATIONARY PROCESS CONTAINERS

Instead of putting labels on individual stationary containers used for processing, the employer may use signs, placards, process sheets, batch tickets, operating procedures, or other written materials as long as this alternative method:

- Identifies the specific containers it applies to.
- Provides all the information required to be on a label.





Something to know:

The employer must ensure this alternative written material is readily accessible to the employees in their work area throughout each work shift.

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Oregon OSHA
Hazard Communication Aligned with GHS

26

Overhead Slide “Star”: same as prior “Labels”

Again, please remind the **Attendees** that Primary Container Labels are based on the Classification and Categorization in Appendix A and Appendix B and that effective hazard communication means that if chemicals are moved from a Primary Container, it is important (critical in some cases), that the precautionary statements on the Primary Container Label are not lost.

Please mention/Read the words under Stationary Process Containers.

Please mention to the **Attendees** that the new HazCom rule has different implementation dates starting in 2012 and going through 2016. The last implementation date is June 1, 2016 covers “**alternative workplace labeling**” which may regularly affect Stationary Process Containers.


(The complete implementation dates are covered later in this **Workbook**).


Labels

PORTABLE, SECONDARY CONTAINERS FOR IMMEDIATE USE

You are **not required to put a label** on a portable, secondary container if it meets the **immediate use** definition

Immediate use means:
The hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and will only be used during the work shift in which it is transferred.





Do you think that these bottles have been under the control of the person who filled them?

Should these bottles have labels?

For Training Purposes Only Oregon OSHA Hazard Communication Aligned with GHS

27

Overhead Slide “Star”: same as prior “Labels”

Again, please remind the **Attendees** that Primary Container Labels are based on the Classification and Categorization in Appendix A and Appendix B and that effective hazard communication means that if chemicals are moved from a Primary Container, it is important (critical in some cases), that the precautionary statements on the Primary Container Label are not lost.


Please mention/Read the words under Portable, Secondary Containers for Immediate Use.

Please mention that this hazard is one of the most cited by Oregon OSHA.

Labels

PIPES

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




Asbestos wrapped pipes.
The pipe on the right shows damage which can cause asbestos fibers to go airborne.

Labeling pipes containing hazardous substances

The labeling method you use must clearly identify the location of the pipes and the substances in the pipes.

This information must be conveyed by the labels or made readily available to employees in their work areas.

- If you use warning labels, apply them at the beginning and at the end of continuous pipe runs.
- 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.



Pipes must also show the direction of flow.

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28

Overhead Slide “Star”: same as prior “Labels”

Please cover this information ask the **Attendees** if they have questions. If you have time, please cover the Oregon OSHA Compressed Air Pipe Labeling Interpretation.

This interpretation, dated 9-25-2006 says that a compressed air at above 30 psi is physical hazard and must be labeled in accordance with subsections (A), (B), (C) and (D) of OAR 437-002-0378. (The Pipe Labeling Rule).

HazCom and NFPA 704

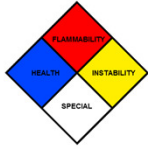


HazCom is a workplace chemical information system established to provide information and safe work practices for those working with chemicals on a routine basis.


The Concern:
HazCom incorporates a numerical rating system that appears to be similar to NFPA 704 rating system, however the severity rating between them is inverted.

HazCom uses a numerical system of 1-4 with 4 indicating the least hazard. NFPA 704 uses a numerical system of 0-4 with 4 indicating the most severe hazard.

To Address This Concern:
NFPA and OSHA developed a "Quick Card" showing the differences between the two systems. It can be found on the NFPA website at www.nfpa.org/704 at the bottom of the page under "additional information".



NFPA 704 was developed by the National Fire Protection Association and is designed to assist those who are responding to an emergency such as a fire or spill. It is sometimes referred to as the "fire diamond."



For Training Purposes Only Oregon OSHA Hazard Communication Aligned with GHS

29

Overhead Slide: "NFPA 704 - HMIS" – for this and next page.

Please cover the basic differences between NFPA 704 and HMIS (on the next page).

Appendix Resource: This **Workbook** contains a copy of the NFPA 704 / OSHA "Quick Card" in the **Appendix**.

If **Attendees** ask why GHS adopted a system that is inverted to NFPA 704 and HMIS please mention that **many systems** in the United States and the world are **similar to the GHS** where "1" is the most dangerous. **Example:** The United States Armed Forces' defense readiness condition (DEFCON) system:

DEFCON 1= Nuclear war is imminent (Color White)


DEFCON 2= Next step to nuclear war (Color Red)

DEFCON 3= Increase in force readiness above that required for normal readiness (Color Yellow)


DEFCON 4= Increase intelligence watch and strengthened security measures (Color Green)

DEFCON 5= Lowest state of readiness (Color Blue)

HazCom and HMIS®



HazCom is a workplace chemical information system established to provide information and safe work practices for those working with chemicals on a routine basis.



The Hazardous Materials Identification System (HMIS®) was developed by the American Coatings Association (ACA) as a compliance aid for the OSHA Hazard Communication Standard.

The Concern:
 HazCom incorporates a numerical rating system that appears to be similar to HMIS rating system, however the severity rating between them is inverted.

HazCom uses a numerical system of 1-4 with 4 indicating the least hazard.
 HMIS uses a numerical system of 0-4 with 4 indicating the most severe hazard.

To Address This Concern:
 ACA is preparing two tools for members and HMIS® users to aid in their compliance. The first tool is a "translator table" to allow facility managers of hazard communication programs to take new, GHS-oriented classification information and convert it to HMIS® hazard ratings. The second is a training program presentation to advise employees that HMIS® remains a qualified system for compliance but must be coupled with specific new training aspects to increase awareness and understanding of safety data sheets and "pictogram" label elements that will be forthcoming.

<http://www.paint.org/news/industry-news/item/1167-osha-hazard-communications-implementation-reminder.html>

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Oregon OSHA
Hazard Communication Aligned with GHS

30

Overhead Slide: same as prior "NFPA 704 - HMIS" same as prior

Repeat of prior **Workbook Page** except that this **Workbook Page** covers **HMIS**:

Cover the similarities between HMIS and NFPA 704 using inverted rating systems.

You may want to mention that both NFPA 704 and HMIS offer the advantage of providing LARGE signs which makes it easier to know the hazard before approaching the hazardous chemical in question. Albeit now with inverse numbers to GHS.

Please mention that GHS doesn't require the severity rating be listed on the label. This rating information will be found on the Safety Data Sheet.

Appendix Resource: This **Workbook** contains a copy of the OSHA "Quick Card" for GHS Label in the **Appendix**. Before proceeding to the next **Workbook Page**, invite the **Attendees** to the **Appendix** and show them the "Quick Card" and mention that they can freely duplicate and use for future training.

GHS Safety Data Sheets – Appendix D

The Safety Data Sheet (SDS) elements shall be in accordance with **Appendix D** – of 29 CFR 1910.1200.

When a manufacturer or importer classifies and categorizes a chemical, they prepare a:

SAFETY DATA SHEET (SDS)

An SDS includes detailed information about the product.

SDS information includes:

- What to do in an emergency
- How the chemical enters the body
- The physical and health effects of the chemical
- Which Personal Protective Equipment to use
- Pictogram(s) and Signal Word

Ready accessibility to SDSs (MSDSs) means that the employee has **immediate access** to read and refer to the information. This means that it is the employer's obligation to ensure that SDSs (MSDSs) are readily accessible **during each work shift** to employees when they are in their work areas.

For Training Purposes Only
Oregon OSHA
Hazard Communication Aligned with GHS

31

Overhead Slide “Star”: “Safety Data Sheets”

Please mention that the Main Purpose by OSHA for the SDS (old MSDS) was that it be available to use in an emergency by First Aid Responders, Medical Personnel, and Hazardous Materials Responders.

Cover the fact that the Secondary purpose by OSHA for the SDS is as a Management Tool for employers. For example, upon receiving an SDS, management must decide who can and cannot have access to the chemical, the level of supervision and training required by the workers handling the chemical, and to determine what the appropriate emergency response in the event of spill or other situation. Example: Clean-up after a spill: Should it be through “normal” response by the worker(s), or should the chemical spill require the use of Hazardous Materials Responders.

Please mention that in a few pages in the **Workbook**, the **Attendees** will conduct a detailed review of an SDS to familiarize themselves with the critical important information contained SDSs.

Please ask **Attendees** what they think “**readily accessible**” means.

A suggestion for a brief discussion on this term is that **Ready accessibility** to SDSs (MSDSs) means that the employee has **immediate access** to read and refer to the information. This means that it is the employer's obligation is to ensure that SDSs

(MSDSs) are readily accessible **during each work shift** to employees when they are in their work areas.

Available electronically? Yes. As long as there are no barriers to employees accessing the SDSs (MSDSs) , storing the MSDSs electronically is acceptable, as long as there is a backup system in place in case the primary system fails or if services that the primary system relies on, such as electricity or telephones are interrupted. This backup system can also be electronic, but it must be separate from the primary system and not rely on the same services as the primary system, so that the SDSs (MSDSs) may be accessed immediately in the event of an emergency.

SDS – The 16 Elements

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone, number; recommended use; restriction on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/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.



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Hazard Communication Aligned with GHS

32

Overhead Slide: “SDS Review the 16 Elements” - This **Overhead Slide** shows a partial image of the first page the Oatey PVC Glue SDS found in the **Appendix** of this **Workbook**. This Oatey PVC Glue SDS can be used for the upcoming SDS training exercise. (You may of course, choose not to use the Oatey PVC Glue SDS and instead use another one. If you choose another one, please make copies of them so that each **Attendee** receives a copy.)

Please link this **Workbook Page and the Next**, with the upcoming SDS training exercise by mentioning AGAIN that in a few pages in the **Workbook**, the **Attendees** will conduct a detailed review of an SDS to familiarize themselves with the critical important information contained SDSs.

Mention that **all sections** of an SDS are important. Then, please ask the **Attendees** to pay special attention to the first 6 Sections of an SDS.

Then, **ask** the **Attendees** if they notice OSHA’s Main Purpose for the SDS (old MSDS) which was (as was covered in the previous **Workbook Page**) that it be for use in and EMERGENCY by First Responders, Medical Personnel, and Hazardous Materials Responders.

Please link specific Sections of the SDS to something practical based on your experience:

For example **Section 8** of this **Workbook Page** is where the PPE for the product will be identified. Always.

Another example, if the hazardous chemical is a gas, **Section 9** of this **Workbook Page** will identify the density of the gas. If lighter than air (less than 1) (ie., hydrogen 0.08), the gas will rise upward toward ceiling lights, overhead ignition sources such as salamander heaters. If the gas is heavier than air (greater than 1) (ie., propane 1.56), the gas will drop toward the floor/ground and potentially be ignited by a water heater pilot light or other ignition source.

In summary, **emphasize** that an SDS is not just a piece of paper (or computer document if the employer stores their primary use SDS on a computer). SDSs are an integral part of the Hazard Communication Program and could save a worker's life.

Appendix Resource: This **Workbook** contains a copy of the OSHA "Quick Card" for GHS SDS in the **Appendix**. Before proceeding to the next **Workbook Page**, invite the **Attendees** to the **Appendix** and show them the "Quick Card" and mention that they can freely duplicate and use for future training.

SDS – The 16 Elements

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.

*Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 (29 CFR 1910.1200(g)(2)).



2 THINGS TO KNOW:

Retention of Safety Data Sheets:
Employers can get rid of SDSs for substances and/or products they no longer have on the premises if some record of the identity (chemical name if known), where it was used, and when it was used is retained for at least **thirty (30) years**.

Electronic records: If employers use electronic means to keep (archive) and update their list of chemicals, they must consider that over time, computer software and hardware will become obsolete. Employers must take technology changes into account to meet the 30-year requirement.

Pesticides regulated by the EPA will use Section 15, Regulatory information, to explain to the user that pesticide labels are not compliant with GHS and conflicts may exist.

For example, EPA pesticide labels use 3 signal words: **Danger, Warning, and Caution** and GHS uses 2 signal words: **Danger and Warning**

Basic Rule: When using a pesticide, follow the EPA label.

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Hazard Communication Aligned with GHS

33

Overhead Slide: “SDS Review the 16 Elements” and **Overhead Slide “Star”:** “Pesticides Section 15”

This **Workbook Page** is a continuation of the SDS elements.

Please mention that Sections 12-15* are not covered by OSHA.

Overhead Slide: “Pesticides Section 15”

If any **Attendees** are Certified Pesticide Applicators, they may have additional questions about how EPA is going to deal with the SDS versus EPA Label. Suggestion, repeat the Basic Rule and if additional information is needed, please refer them to EPA’s designee in Oregon for pesticide labels, the Oregon Dept. of Agriculture, 503-986-4635.

If you would like, you can mention that the Pictograms on this **Overhead Slide** “Pesticides Section 15”, shows the 5 GHS Pictograms most likely to be found on a pesticide SDS.

The retention of Safety Data Sheets is in not in the HazCom rule but rather is in Access to Employee Exposure & Medical Records rule, Division 2 (Z), 29 CFR 1910.1020.

Written Program

Purpose: Communicates (in writing) who's in charge of:


- ☐ **CHEMICALS LIST**
- ☐ **LABELING** (primary, secondary, stationary containers)
- ☐ **SAFETY DATA SHEETS**
- ☐ **TRAINING** (initial and follow-ups)
- ☐ **HAZARDOUS NON-ROUTINE TASKS**
- ☐ **CHEMICALS IN PIPES**
- ☐ **CONTRACTORS** (coordinating information, SDSs)

Can the employer delegate these duties?

Yes! Delegating is okay and gets workers involved.

If a worker likes to train, an employer can delegate the Hazard Communication training to that person

If another worker likes to organize things and is good at procedures, delegate to them the Safety Data Sheets and Labeling.



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Hazard Communication Aligned with GHS

34

Overhead Slide “Star”: “Written Program”

Keep this **Overhead Slide “ON”** to cover the different parts of the **Written Program** by reading out each of them and linking them to areas covered earlier in the **Workshop and Workbook**.

Mention to the **Attendees** that the purpose of having the actual language of Oregon OSHA’s Hazard Communication Program template on the next pages which cover the **Written Program**, is to cover the key parts of the Written Program. **Important:** It isn’t necessary for the instructor or the **Attendees** to read or to cover in full detail each of the elements of the Written Program. Rather, it is meant to guide the **Attendees** on how the HazCom Rules affect different parts of an employer’s safety and health responsibilities.

In a one sentence: The **Written Program** is the employer’s opportunity to “**think things through**” as it relates to Hazardous Chemicals, Workers, Duties, Responsibilities, Training, and the overall Safety and Health Management Program.

Use the **Overhead Slide**, “Written Program” to cover the different parts of the **Written Program** by reading out each of the **main headings** (main headings only).

As you flip through the next few **Workbook Pages**, please link the elements to information already covered in this **Workshop**.

For example, **Ask:** Do all Hazardous Chemicals have to be on the Chemical List? **Answer:** **No**, the list of exemption were covered earlier in the Workbook (Flip back to the exemptions Workbook Pages if necessary). Do same for Labeling, Safety Data Sheets and Chemicals in Pipes.

Please remind the Attendees that it is best to complete the Written Program as soon as possible if they've not do so already as it is one of the #1 most cited violations by Oregon OSHA. But more importantly, its for workers' safety.

Example of a written hazard communication program.
Your written plan should contain the elements in this example.

The management of **[this workplace]** is committed to preventing accidents and ensuring the safety and health of our employees. We will comply with all applicable federal and state health and safety rules and provide a safe, healthful environment for all our employees. This written hazard communication plan is available at the following location for review by all employees: **[Location name]**.

CHEMICALS LIST
A list is attached to this plan that identifies all hazardous chemicals with a potential for employee exposure at this workplace. **[Attach list]**. Detailed information about the physical, health, and other hazards of each chemical is included in a safety data sheet (SDS) and the product identifier for each chemical on the list matches and can be easily cross-referenced with the product identifier on its label and on its safety data sheet.

LABELING
All hazardous chemical containers used at this workplace will be marked with one of the following:

- The original manufacturer's label that includes a product identifier, an appropriate signal word, hazard statements, pictograms, precautionary statements, and the name, address, and telephone number of the chemical manufacturer, importer, or other responsible party.
- Another label with the appropriate label elements just described.
- Workplace labeling that includes the product identifier and words, pictures, symbols, or a combination that provides at least general information regarding the hazards of the chemicals.

[Name of person or job title] will ensure that all containers are appropriately labeled. No container will be released for use until this information is verified. Workplace labels must be legible and in English. Information in other languages is available at: **[Identify the location if they are stored in a paper file. Describe how to access this information.]**


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Oregon OSHA
Hazard Communication Aligned with GHS

35

Overhead Slide: "Written Program"

Please follow the **Instructor Notes** located on prior **Written Program Workbook Page**.

The Written Program – Chemicals List




“If you don’t know what chemicals you have, your Hazard Communication Program can’t work.”

Required Column	Recommended Column	Recommended Column
PRODUCT IDENTIFIER	SIGNAL WORD	LOCATION OF USE
Chevron Regular Gasoline	Danger	Shop and Trucks
Oatey PVC Glue	Danger	Pipe Installation
Bestine Solvent & Thinner	Danger	Shop
Armstrong Floor Polish	Warning	Gymnasium

DISCUSSION: A worker is sent to the hardware store to buy a solvent to remove grease. The worker returns and goes to work using the solvent. The remainder of the chemical get stored on a shelf.

What can the employer do to reduce (or eliminate) the possibility of chemicals not getting added to the list?



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Hazard Communication Aligned with GHS

Overhead Slide: “Chemicals List” and Overhead Slide “Star”: “Discussion”

Before proceeding with the other elements of the Written Program, please pause to give **Attendees** some practical advice on how to manage the chemicals list and complete the Discussion exercise at the bottom of the this **Workbook Page**.

Emphasize that the chemical list must use the “product identifier” as the name of the chemical. This means the name is that appears on the label and the safety data sheet. Why, because the rule says, “. . . a product identifier that is referenced on the appropriate safety data sheet . . . “

Please remind **Attendees** that the Chemicals List is a part of the Written Hazard Communication Program. Mention that the “signal word” and “location of use” columns are recommended because they are effective tools the employer can use to more quickly identify the more dangerous chemicals in the workplace. This information can help separate and segregate the “very bad” chemicals from the others. Employers for example could select certain workers to have additional training to handle the most hazardous chemicals. This may have the benefit of reducing training, PPE, and supervision costs.

The **Discussion** exercise on this **Workshop Page** has some elements of Safety and Health Management which can be incorporated into the discussion with the **Attendees**. For example, Hazard Anticipation and Detection, Management Leadership, Safety and Health Training, Employee Participation, Planning and Evaluation, and Administration and Supervision.

Example of a written hazard communication program.
Your written plan should contain the elements in this example.

SAFETY DATA SHEETS
 Safety data sheets are readily available to all employees during their work shifts. Employees can review 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 safety data sheets are updated and managed by [name of person or job title responsible for managing the safety data sheets]. If a safety data sheet is not immediately available for a hazardous chemical, employees can obtain the required information by calling [name of person or job title responsible for providing information in an emergency].

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

- An overview of the requirements in Oregon OSHA's hazard communication rules.
- Hazardous chemicals present in their workplace.
- Any operations in their work area where hazardous chemicals are used.
- The location of the written hazard communication plan and where it may be reviewed.
- How to understand and use the information on labels and in safety data sheets.
- Physical and health hazards of the chemicals in their work areas.
- Methods used to detect the presence or release of hazardous chemicals in the work area.
- Steps we have taken to prevent or reduce exposure to these chemicals.
- How employees can protect themselves from exposure to these hazardous chemicals through use of engineering controls/work practices and personal protective equipment.
- An explanation of any special labeling present in the workplace.
- Emergency procedures to follow if an employee is exposed to these chemicals.

[Name of person or job title responsible for managing the training program] is responsible to ensure that employees receive this training. After attending the training, employees will sign a form verifying that they understand the above topics and how the topics are related to our hazard communication plan.

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Overhead Slide: Return to: “Written Program” - this Overhead Slide is the same as the prior one but has the first two areas “greyed out”.

Please follow the **Instructor Notes** on the prior page(s).

Please ask the **Attendees** WHO manages the SDS and the Training. Also, please follow-up and ask HOW are these two critical elements of the Written Program are done. Practice active listening. Ask other Attendees for their own examples. Compare and Contrast between how “things are done” between small (Mom & Pop) businesses and large businesses.

Example of a written hazard communication program.
Your written plan should contain the elements in this example.

HAZARDOUS NON-ROUTINE TASKS
Before employees perform special non-routine tasks that may expose them to hazardous chemicals, their supervisors will inform them about the chemical's hazards. Supervisors must inform employees how to control exposure and what to do in an emergency. The employer will evaluate the hazards of these tasks and provide appropriate controls including personal protective equipment and any additional training as required. Examples of special tasks that may expose employees to hazardous chemicals include the following: **[include examples of special non-routine tasks]**.

CHEMICALS IN PIPES
Informing employees about hazardous chemicals in pipes This workplace follows the labeling requirements in OAR 497-002-0378 concerning the labeling of pipes. Before working in areas where hazardous chemicals are transferred through unlabeled pipes or where pipes are insulated with asbestos-containing material, employees will contact **[name of person or job title]** for the following information:

- Identity of chemicals in the pipes.
- Physical or health hazards presented by the chemicals.
- Safe work practices necessary to prevent exposure.

CONTRACTORS
Informing contractors and other employers about our hazardous chemicals If employees of other employer(s) may be exposed to hazardous chemicals at our workplace (for example, employees of a construction contractor working on-site) It is the responsibility of **[name of person or job title]** to provide contractors and their employees with the following information:

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

[Name of person or job title] will also obtain a safety data sheet for any hazardous chemical a contractor brings into the workplace.

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Overhead Slide: “Written Program”

Please follow the **Instructor Notes** on the prior page(s).

Hazardous Non-Routine Tasks and Contractors have not been covered in this **Workshop. Until Now.**

Please cover these two important elements of HazCom while on this **Workbook Page** at this time.

Provide an example of **Hazardous Non-Routine Task**. Create the link that what may be hazardous and non-routine for one employer, it may not be another. For example, welding on metal can be a **Hazardous and Non-Routine** for an assembly plant that welds 3-4 times per year. But, it would not be a **Hazardous and Non-Routine** task for an auto-repair shop whose workers weld continuously through the day, week, month, and year.

Please cover the **Contractors** section. Make the link that this section of the **Written Program** is mainly about establishing effective two-way communication. If necessary, link some discussion between the Contractors’ workers also having the right to “**Readily Available**” SDSs and vice versa for the Contracting Employers’ workers.

Oregon OSHA Forms: www.orosha.org

WORD DOCUMENTS

Hazard Communication Plan in either [English](#) or [Spanish](#)

HazCom training form in either [English](#) or [Spanish](#)

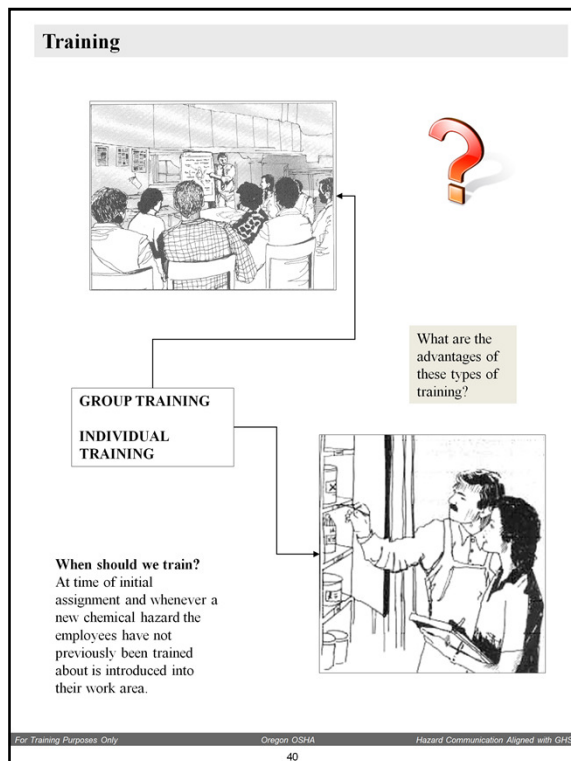
Employee training record in either [English](#) or [Spanish](#)

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Overhead Slide “Star”: “Written Program Links” There are several **active links** on this Overhead Slide.

This **Workbook Page** contains **Active Links** to the Oregon OSHA web page.

Optional: If there is connectivity to the Web from your location, you could show the **Attendees** how to navigate to the Oregon OSHA website containing resources on Hazard Communication.



Overhead Slide “Star”: “Training”

Open discussion for critical element of employee information and training with a question:


Ask: Can someone describe how you do HazCom Training? Interact with the **Attendee** who responds. **Ask someone else.** Contrast that response with the first.

Cover some of the advantages of group versus individual training.

Group training gives information to many. Easier to ask/answer questions. Many people learn from listening to other’s questions.

Individual training is good for the hands-on piece. OJT. Allows for testing on skills and knowledge by observing learner perform the task.

Use and example from your own experience in having received group training and/or individual training. Which method did (do) you prefer? Does it depend on the topic? The instructor? Please use your own experience to obtain active participation.

Training - What needs to be explained?


- An overview of the requirements in Oregon OSHA's hazard communication rules.
- Hazardous chemicals present in their workplace.
- Any operations in their work area where hazardous chemicals are used.
- The location of the written hazard communication plan and where it may be reviewed.
- How to understand and use the information on labels and in safety data sheets.
- Physical and health hazards of the chemicals in their work areas.
- Methods used to detect the presence or release of hazardous chemicals in the work area.
- Steps we have taken to prevent or reduce exposure to these chemicals.
- How employees can protect themselves from exposure to these hazardous chemicals through use of engineering controls/work practices and personal protective equipment.
- An explanation of any special labeling present in the workplace.
- Emergency procedures to follow if an employee is exposed to these chemicals.

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Oregon OSHA
Hazard Communication Aligned with GHS

41

Overhead Slide: “TRAINING” – What needs to be covered?

A key element of this **Workbook Page** is that it is the **SOURCE** of the first exercise (**pencil and checkboxes**) which was covered near the start of this Workshop. In that exercise, **Attendees** were asked to think of a hazardous chemical that they use and to put a checkmark in the box if they knew the dangers to their **health** from the chemical, *exactly* the **personal protective equipment (PPE)** that they must use and *exactly* what to do in the event of an **emergency**.


This **Workbook Page** is copied from the Written Hazard Communication Program a few pages back in this **Workbook**.

Please **Ask** the **Attendees** to locate those important elements (**Health, PPE, and Emergency**) on this **Workbook Page** and place marks on the margin or underline those words.

Summarize that the three elements are only 3 of ALL the items in the above bullets that must be covered in the HazCom Training.

Practice

INSTRUCTIONS:
Using the SDS of a Hazardous Chemical provided by your instructor, identify the following mandatory training elements:




Section 2: Hazard Identification

Signal Word: DANGER

Hazard Statements:

- H302: Harmful if swallowed.
- H312: Causes skin irritation.
- H314: Causes severe skin burns and eye damage.
- H332: Irritating to the respiratory system.
- H334: May cause or aggravate asthma or other respiratory symptoms.
- H336: May cause drowsiness or dizziness.

Pictograms:



- ☐ Health and Physical hazards of the hazardous chemical.
- ☐ How employees can protect themselves from exposure to these hazardous chemicals through use of engineering controls/work practices and personal protective equipment.
- ☐ Emergency procedures to follow if an employee is exposed to these chemicals.

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Overhead Slide “Star”: “Training Practice”

The FINAL!

Please mention to the **Attendees** that this Practice is actually “real” in the sense that it what is expected of any employer under HazCom to ensure workers are not injured or made sick by the hazardous chemicals they are assigned to handle and use.



You may choose to use the SDS in the **Appendix** of this **Workbook** or if you may use another SDS. If you choose to use one of your own, provide a copy to each **Attendee**.

Please encourage **Attendees** to write notes in the margins of their practice SDS. In fact, encourage the Attendees to select two or three SDSs for products in common use at their own facility, make copies of them for training, and make one of the SDSs their “master” to conduct training. In addition to three elements of training for this Practice, cover other elements of interest that can be found on SDSs. For example: Density, Odor, Color, Solid, Liquid, Gas, etc., etc. Some of the qualities of hazardous chemical may seem obvious but others . . . not so much. SDSs can be used to make HazCom training interesting. They are more than a piece of paper.

TRAINING PRACTICE: Please leave **Overhead Slide: “Training Practice” “ON”** during this exercise. Encourage team/group participation. Team/groups can divide the search. One can search for Health effects while another focuses on Physical effects. The same for the Controls and Emergencies.

Conclude the Practice by **asking for feedback**. Ask **Attendees** how they plan to make this type of training a reality in their workplaces. Listen actively. **Ask** others for their

opinions about how they plan on making their HazCom Training more **Effective**.

DATES		
		
 <p>The Hazard Communication Rule aligned with GHS will be phased-in over the next few years:</p>		
Phase-in Dates Hazard Communication Standard (HCS) 29 CFR 1910.1200		
Completion Date	Requirement(s)	Who
December 1, 2013	Train employees on the new label elements and safety data sheet (SDS) format.	Employers
June 1, 2015	Compliance with all modified provisions of this final rule, except:	Chemical manufacturers, importers, distributors and employers
December 1, 2015	The Distributor shall not ship containers labeled by the chemical manufacturer or importer unless it is a GHS label.	
June 1, 2016	Update alternative workplace labeling and hazard communication program as necessary, and provide additional employee training for newly identified physical or health hazards.	Employers
Transition period to the effective completion dates noted above	May comply with either the revised Hazard Communication Standard 29 CFR 1910.1200 (the final standard), or the current standard, or both.	Chemical manufacturers, importers, distributors, and employers
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43

Overhead Slide “Stars” 2: “Phase-in Dates” and the “December 1, 2015”

The December 1, 2013 training is an overview of the 2012 HazCom rule. The **Appendix** of this **Workbook** has the Federal OSHA Fact Sheet which covers these requirements.

The following text and links are available to the **Attendees** on the **Appendix Page** of this **Workbook**:

For more information about the December 1, 2013 Training

A word about browsers: If using Internet Explorer browser, it must be IE-9 or higher (not an issue with other browsers like Firefox and Chrome.)

An “App” that shows the same information that can be seen in the OSHA GHS “Quick Cards”:

http://www.orosha.org/subjects/hazard_communication.html

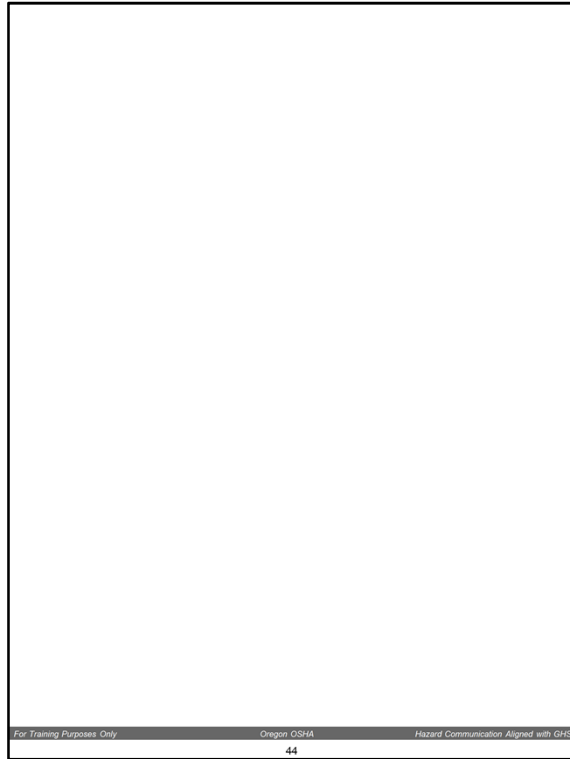
A free online session from SAIF Corporation:

<http://www.orosha.org/educate/GHS-SAIF/player.html>

Overhead Slide: “December 1, 2015”

December 1, 2015 means the following:

After December 1, 2015 distributors shall not ship product that does not have a GHS-aligned label. Another way to look at this is that if an employer purchases product before December 1, 2015, there's no time limit as to when the employer can use it up even if it has the old pre-GHS label. Suggest that employers keep their receipts.



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APPENDICES

- [FEDERAL OSHA DECEMBER 1, 2013 TRAINING REQUIREMENTS FACT SHEET](#)
[www.osha.gov/Publications/OSHA3642.pdf](#)
- [FEDERAL OSHA GHS QUICK CARDS](#)
[www.osha.gov/dsg/hazcom/ghsquickcards.html](#)
- [NFPA QUICK CARD](#)
[www.nfpa.org/Assets/files/AboutTheCodes/704/NFPA704_HC2012_QCard.pdf](#)
- PICTOGRAMS GAME
- SAFETY DATA SHEET –
OATEY PVC REGULAR CLEAR – LO-YOC FORMULA
[http://www.oates.com/msds/1100F_tmpl_us_e1_OUT.pdf](#)

For more information about the December 1, 2013 Training Requirements:
[http://www.orosha.org/subjects/hazard_communication.html](#)

A free online session from SAIF Corporation:
[http://www.orosha.org/educate/GHS-SAIF/player.html](#)

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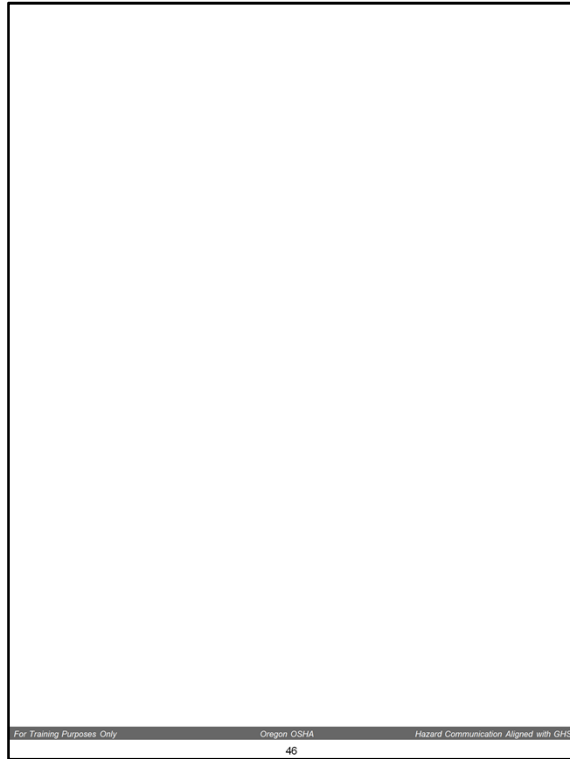
Hazard Communication Aligned with GHS

45

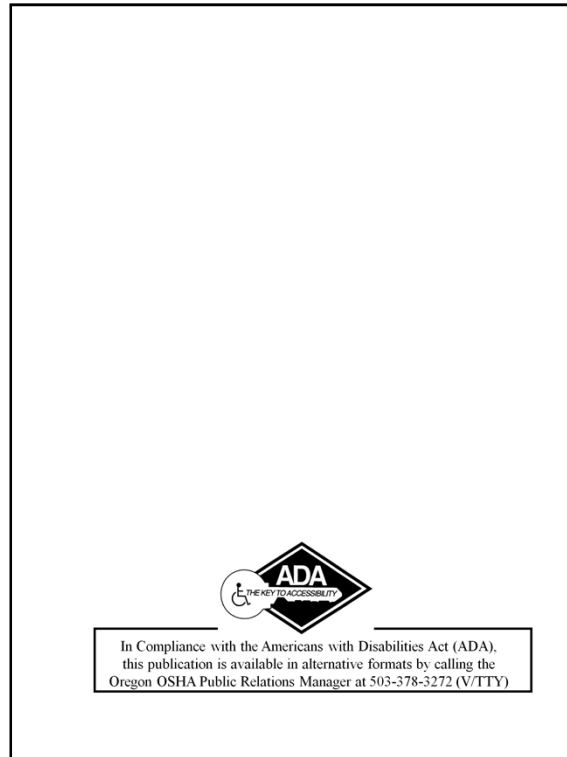
Overhead Slide “Star”: “Appendices” - There are several **active links** on this **Overhead Slide**.

Because the Appendices in this Workbook have been referred to several times, **Attendees** will already be familiar with these resources. Remind **Attendees** that the resources in the appendices are in the public domain and may be freely duplicated and shared.

Because of the file size, these documents are on in a separate file. You can obtain a copy of the Appendix materials from <http://www.orosha.org/education.html> or, by contacting Reggie Robb, regina.k.robbs@state.or.us 503-947-7443.



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Last page of **Workbook**.

Hazard Communication

Aligned with GHS



A practical Workshop designed to guide you in developing and implementing an effective Hazard Communication Program aligned with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).



Presented by the Public Education Section
Oregon OSHA
Department of Consumer and Business Services



0114-02

First page of **Workbook**.

Oregon OSHA Public Education Mission:

We provide knowledge and tools to advance
self-sufficiency in workplace safety and health

Consultative Services:

- Offers no-cost on-site assistance to help Oregon employers recognize and correct safety and health problems

Enforcement:

- Inspects places of employment for occupational safety and health rule violations and investigates complaints and accidents

Public Education and Conferences:

- Presents educational opportunities to employers and employees on a variety of safety and health topics throughout the state

Standards and Technical Resources:

- Develops, interprets, and provides technical advice on safety and health standards
- Publishes booklets, pamphlets, and other materials to assist in the implementation of safety and health rules

**Questions?
Call us**



Field Offices:

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Eugene	541-686-7562
Medford	541-776-6030
Bend	541-388-6066
Pendleton	541-276-2353

Salem Central Office:

Toll Free number in English: 800-922-2689

Toll Free number in Spanish: 800-843-8086

Web site: www.orsosha.org