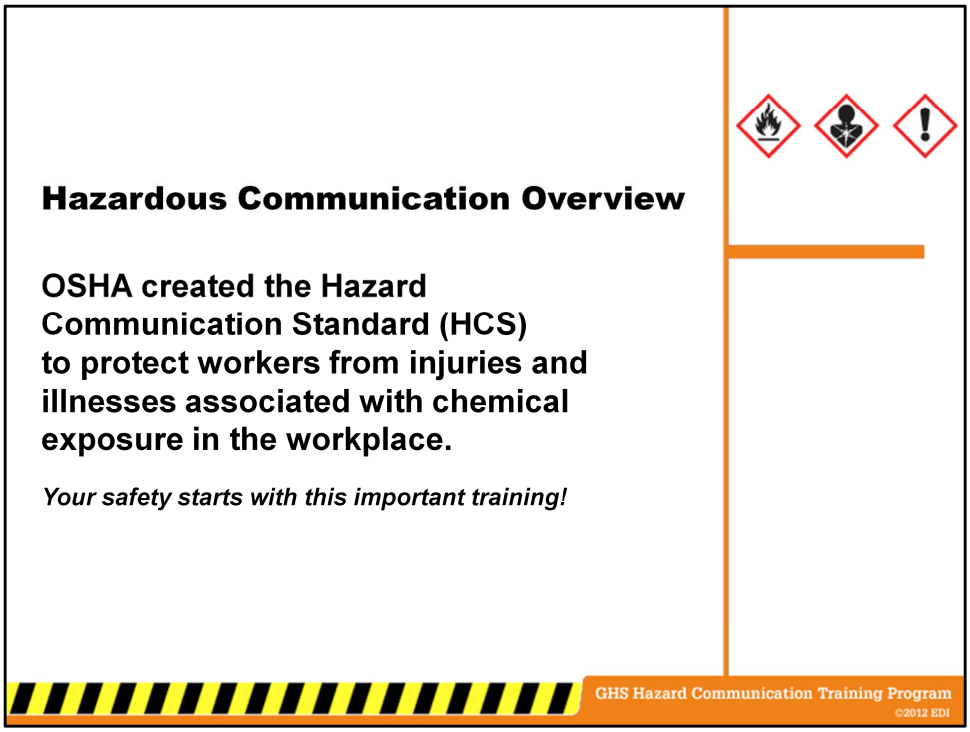
GHS Hazard Communication Training Program

Workplace Media Collection™



The HCS, also known as the "right to know law," requires manufacturers and distributors to evaluate all chemicals for their hazardous potential, and to attach appropriate warning labels to containers holding chemicals before shipping them to your employer. The HCS also requires employers to educate their workers on the hazards of chemical exposure and to provide adequate training to prevent injury or illness.

OSHA recently updated its HCS, aligning it with the United Nations' global chemical labeling system called the Globally Harmonized System (GHS). It will be fully in effect in 2016 and will benefit you by reducing confusion about chemical hazards in the workplace. OSHA's new standard classifies chemicals according to their health and physical hazards, and establishes consistent labels and safety data sheets for all hazardous chemicals.

The major changes to the HCS include:

- Labels: Chemical manufacturers and importers are required to provide a label that includes a harmonized signal word, pictogram, and hazard statement for each hazard class and category. Precautionary statements must also be provided.

- Safety Data Sheets: Will now have a specified 16-section format.

- Information and training: Employers are required to train workers by December 1, 2013, on the new labels elements and safety data sheets format to facilitate recognition and understanding.

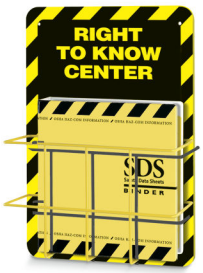
More on each of these changes will be discussed later in the training presentation.

What You Will Learn:

- General hazards of chemical exposure
- Purpose of a Hazard Communication Program
- The basic requirements of the Hazard Communication Standard, including label requirements

What You Will Learn:
(Continued)

- What Safety Data Sheets (SDSs) are
- Proper waste cleanup and emergency procedures
- Other measures to protect yourself from hazards in the workplace



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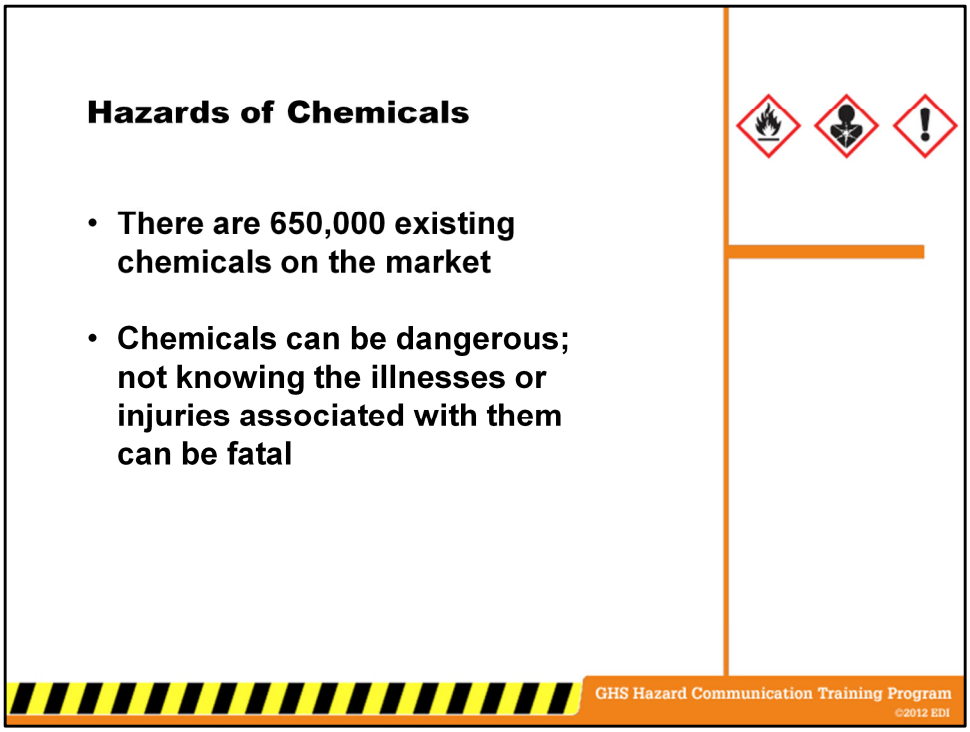
Instructor: Elaborate on other topics you would like to cover in this training.

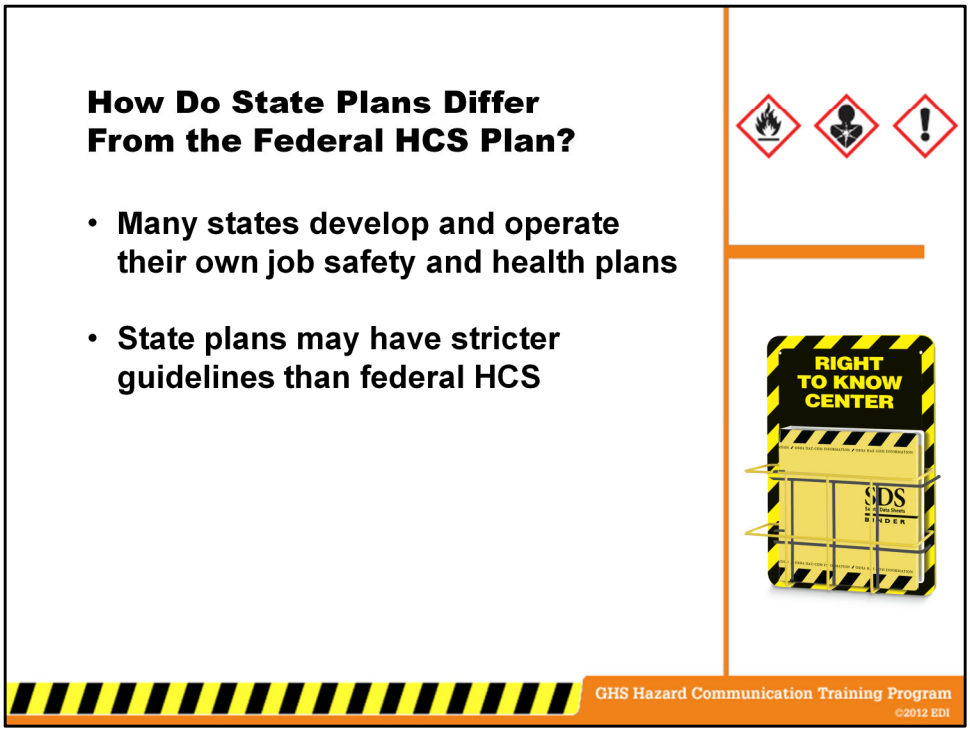


Employees working with chemicals should be trained on the hazards of chemical exposure before their initial assignment or whenever a new physical or health hazard arises that they may be exposed to.

OSHA regulations define “hazardous chemical” as any chemical classified as a physical or health hazard. It is important for you to know about the risks associated with the chemicals in your work area so you will know how to protect yourself against hazardous exposure and how to respond to an exposure in an emergency. The proper response to a chemical illness or injury may make the difference between minor injury and fatality.

Some chemicals cause or contribute to chronic disease, such as heart or kidney disease, while others cause acute injuries or illnesses such as rashes, burns, and poisoning. Certain chemicals may also pose safety problems due to their ability to cause fires or explosions. Therefore, it is important for you to understand each chemical's makeup that you work with, the protective equipment you should wear when handling chemicals, and how to properly handle a spill or exposure to a chemical. If you follow the safety procedures covered in this training, you will reduce the risk of exposure to illness or injury in your work area.

Remember, safety begins with training, and safety is your responsibility!

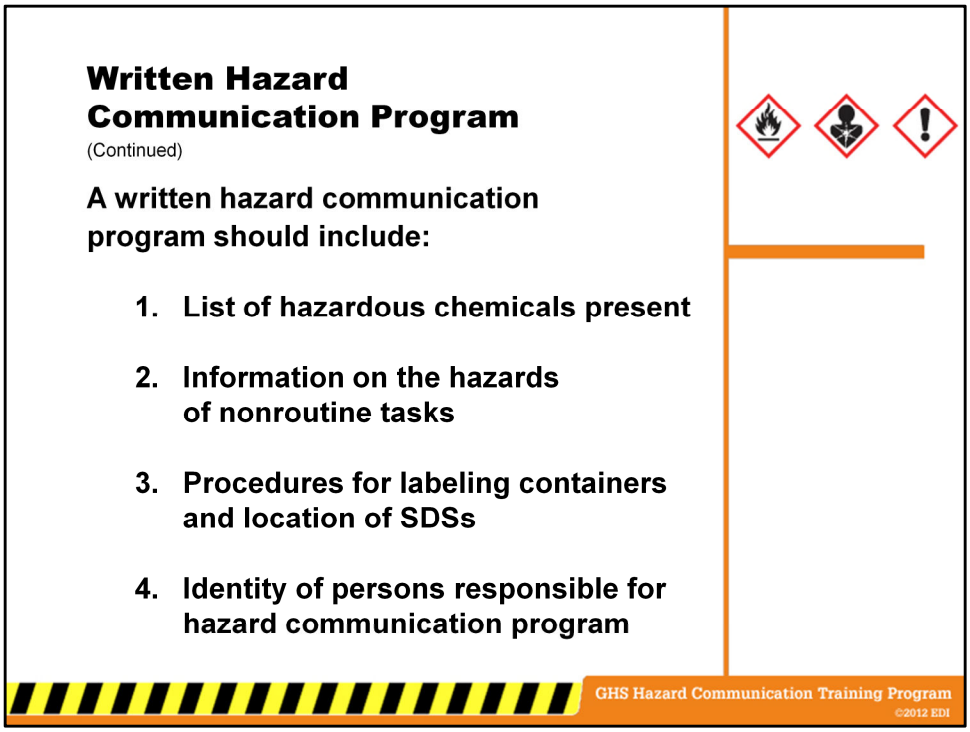


The HCS encourages states to develop and operate their own job safety and health plans regarding chemical hazards. OSHA must approve plans developed on a state level. Currently, there are 27 states and territories that have their own safety and health plans.

State plans may have stricter guidelines than the Federal HCS. This presentation covers the Federal Hazard Communication Standard.

Instructor: Discuss your state's plan or guidelines, if applicable.

OSHA requires employers to develop, implement, and maintain at each workplace, a written hazard communication program which at least describes labels and other forms of warning, safety data sheets, and employee information and training requirements.



It should also contain, when applicable, methods the employer will use to inform employees of the hazards of nonroutine tasks (for example the cleaning of reactor vessels), and the hazards associated with chemicals contained in unlabeled pipes in their work areas.

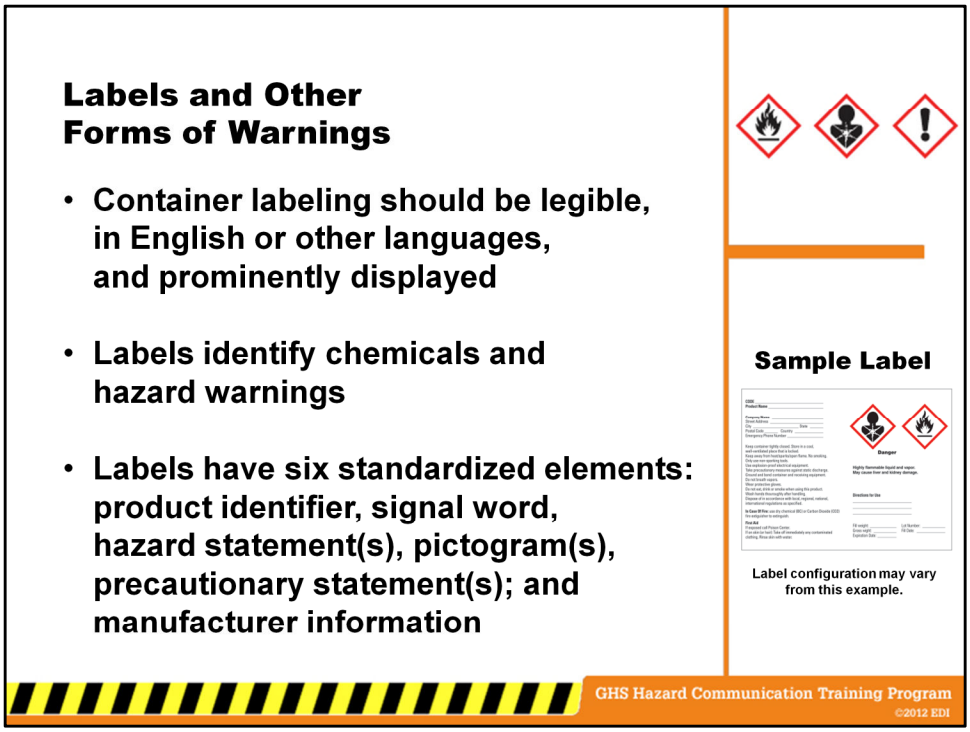
Hazard communication programs should be maintained onsite at the workplace.

Instructor, you may identify:

a. Where the written hazard communication program is placed in the company

b. What the program looks like

c. The persons responsible for implementing the hazard communication program



Container labeling is used to inform you about the physical and health hazards used in your workplace. Each chemical container must contain a label, tag or mark that identifies the hazardous chemical used in the container. You will see a sample label shortly in the presentation.

Labels now have six standardized elements: product identifier, signal word, hazard statement(s), pictogram(s), precautionary statement(s) and supplier information.

The **product identifier** is the name or number used for the hazardous chemical. The identifier is usually a common name such as bleach.
The **signal word** will either be DANGER or WARNING to denote the severity of the hazard. Danger will be used for more severe hazards; warning will be used for less severe hazards.
The **hazard statement** describes the hazards associated with the chemical. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s).
The **pictogram** on the label is determined by the chemical hazard classification and the HCS has nine of these pictograms that you will see on the next slide.
The **precautionary statement** describes recommended measures that should be taken to protect against hazardous exposures.
The **supplier information** is the name, address, and telephone number of the chemical manufacturer.

Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s).

The pictogram on a label is determined by the chemical hazard classification.

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/sparks/open flame. No smoking.
Only use non-sparking tools.
Use explosion-proof electrical equipment.
Take precautionary measures against static discharge.
Ground and bond container and receiving equipment.
Do not breath vapors.
Wear protective gloves.
Do not eat, drink or smoke when using this product.
Wash hands thouroughly after handling.
Dispose of in accordance with local, regional, national, international regulations as specified.

In Case Of Fire: use dry chemical (BCI or Carbon Dioxide (CO2) fire extinguisher to extinguish.

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

Danger

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

Directions for Use
_____
_____
_____

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

When It Comes to Labels …

Do Not:

- Use a container that is not labeled
- Cover labels so they cannot be read
- Ignore labels or warnings
- Use a chemical you have not been trained about

When It Comes to Labels ...
(Continued)

Do:

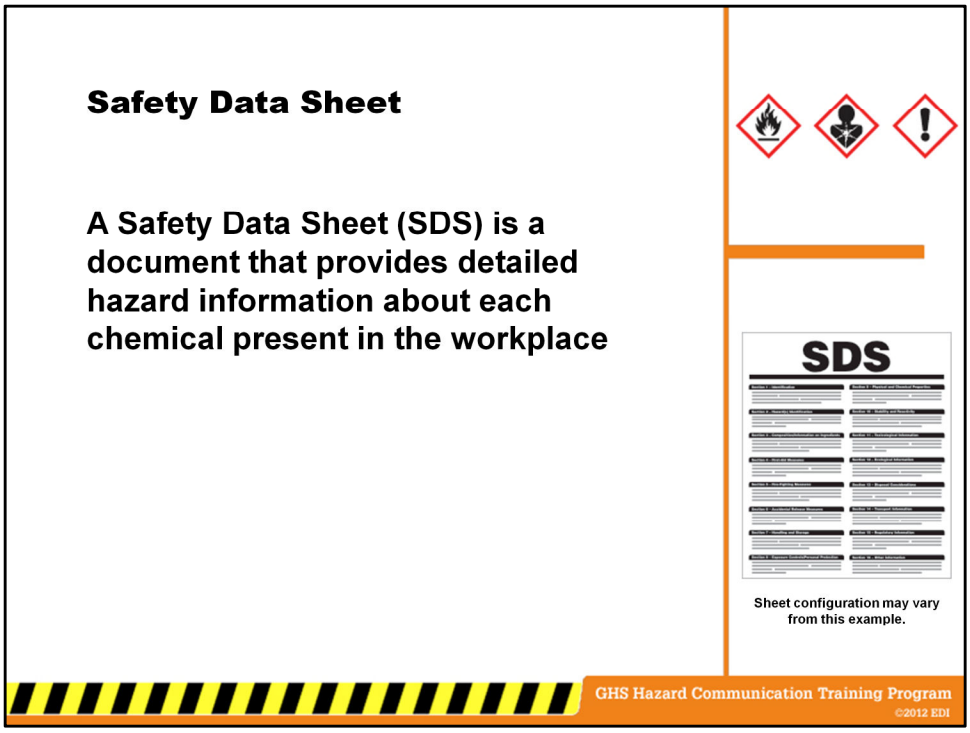
- Ensure every container has a label
- Report missing or damaged labels for replacement
- Put labels on portable containers

When It Comes to Labels …

(Continued)

Do:

- Become familiar with your company's emergency procedures
- Read label and Safety Data Sheets (this will be explained on the next slide) for every chemical you work with

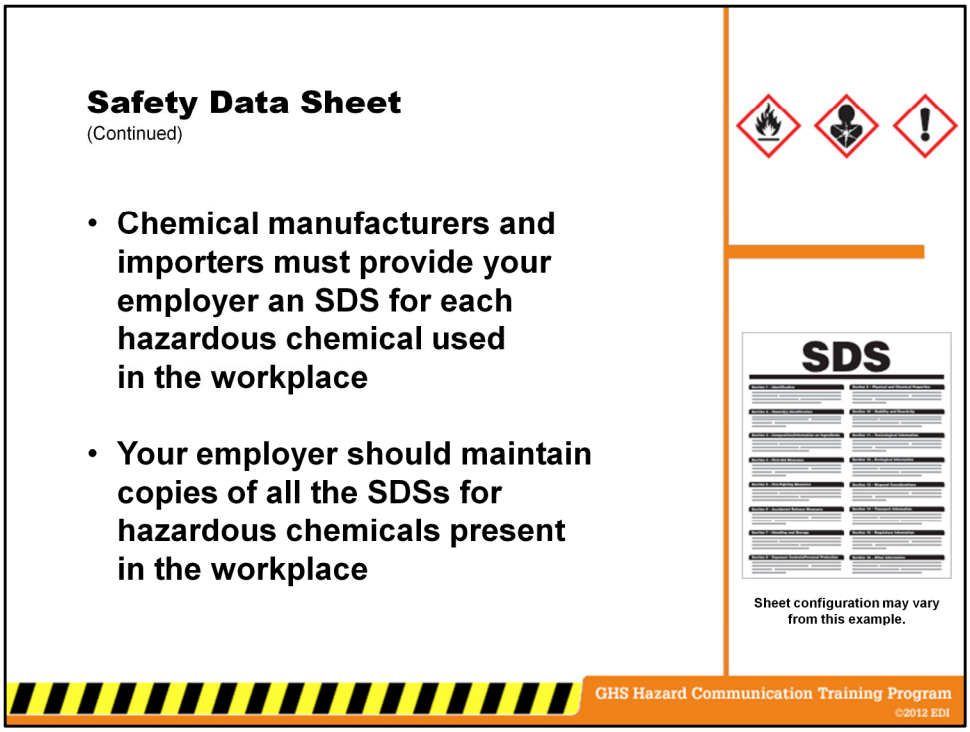


What is a Safety Data Sheet?
A Safety Data Sheet (SDS) is a document that provides detailed hazard information for any chemical you may be exposed to in the workplace. The SDS contains information beyond what is included on the warning label. An SDS tells you what the hazards of the chemical are, how to use the product safely, what to expect if the recommendations are not followed, what to do if accidents occur, and how to recognize symptoms of overexposure. You must be able to read and understand SDSs if you work with chemicals.

Safety Data Sheet
(Continued)

- The SDS gives you more information than the label
- You must be able to read and understand an SDS if you work with chemicals

Sheet configuration may vary from this example.

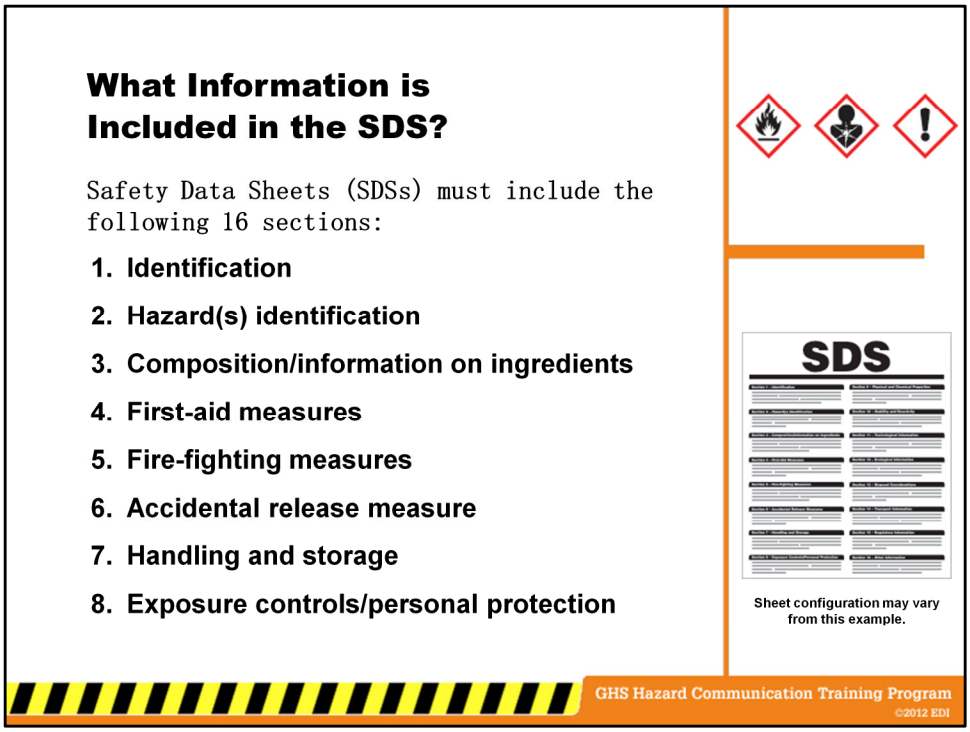


Chemical manufacturers and importers must obtain or develop an SDS for each hazardous chemical they produce or import. Employers are responsible for maintaining copies of all SDSs for each hazardous chemical present in the workplace.

When Should You Use an SDS?

- Before using a chemical, you should read all labels to familiarize yourself with the hazards of the chemical
- It is your responsibility to read and understand the SDS for each chemical in your work area

Sheet configuration may vary from this example.



The SDS includes information such as the properties of each chemical; the physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical.

An SDS will always have 16 sections, some of which may be difficult to understand. Please feel free to ask questions for clarification if you are confused. It is critical that you understand how to read an SDS.

The following is a summary of each section of an SDS.

Sections 1 through 8 contain general information about the chemical, product identification, hazards, composition, safe handling practices, and emergency control measures (e.g., fire fighting). This information should be helpful to those that need to get the information quickly.

Section 1: Identification
This section identifies the chemical on the SDS as well as the recommended uses. It also provides the essential contact information of the supplier.

Section 2: Hazard(s) Identification
This section identifies the hazards of the chemical presented on the SDS and the appropriate warning information associated with those hazards. The required information consists of: the hazard classification of the chemical (e.g., flammable liquid, category1), signal word, hazard statement(s), pictogram(s), precautionary statement(s), and description of any hazards not otherwise classified.

Section 3: Composition/Information on Ingredients
This section identifies the ingredient(s) contained in the product indicated on the SDS, including impurities and stabilizing additives. This section includes information on substances, mixtures, and all chemicals where a trade secret is claimed.

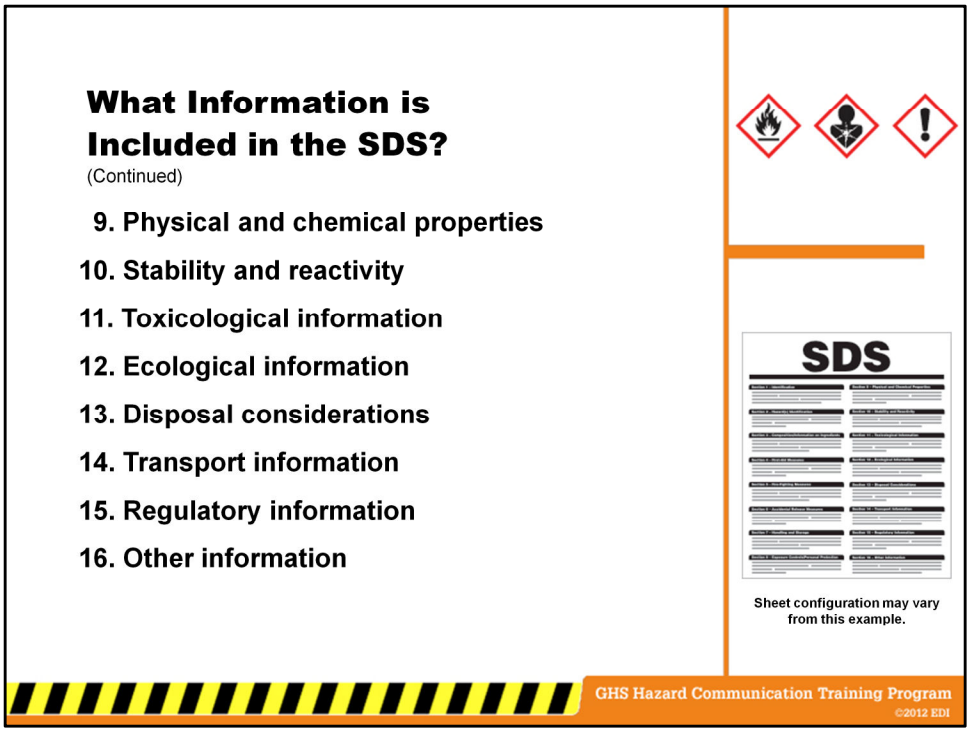
Section 4: First-Aid Measures
This section describes the initial care that should be given by untrained responders to an individual who has been exposed to the chemical. The required information consists of: necessary first-aid instructions by relevant routes of exposure (inhalation, skin and eye contact, and ingestion), description of the most important symptoms or effects, and any symptoms that are acute or delayed and recommendations for immediate medical care and special treatment needed, when necessary.

Section 5: Fire-Fighting Measures
This section provides recommendations for fighting a fire caused by the chemical.

Section 6: Accidental Release Measures
This section provides recommendations on the appropriate response to spills, leaks, or releases, including containment and cleanup practices to prevent or minimize exposure to people, properties, or the environment. It may also include recommendations distinguishing between responses for large and small spills where the spill volume has a significant impact on the hazard.

Section 7: Handling and Storage
This section provides guidance on the safe handling practices and conditions for safe storage of chemicals.

Section 8: Exposure Controls/Personal Protection
This section indicates the exposure limits, engineering controls, and personal protective measures that can be used to minimize worker exposure.



Sections 9 through 16 contain other technical and scientific information, such as physical and chemical properties, stability and reactivity information, toxicological information, exposure control information, and other information including the date of preparation or last revision.

A SDS will state that no applicable information was found when the preparer does not find relevant information for any required section.

Section 9: Physical and Chemical Properties
This section identifies physical and chemical properties associated with the substance or mixture.

Section 10: Stability and Reactivity
This section describes the reactivity hazards of the chemical and the chemical stability information.

Section 11: Toxicological Information
This section identifies toxicological and health effects information or indicates that such data are not available. Some of the required information consists of: information on the likely routes of exposure (inhalation, ingestion, skin and eye contact) and the description of the delayed, immediate, or chronic effects from short- and long-term exposure.

Section 12: Ecological Information
This section provides information to evaluate the environmental impact of the chemical(s) if it were released to the environment.

Section 13: Disposal Considerations
This section provides guidance on proper disposal practices, recycling or reclamation of the chemical(s) or its container, and safe handling practices.

Section 14: Transport Information
This section provides guidance on classification information for shipping and transporting of hazardous chemical(s) by road, air, rail, or sea.

Section 15: Regulatory Information
This section identifies the safety, health, and environmental regulations specific for the product that is not indicated anywhere else on the SDS.

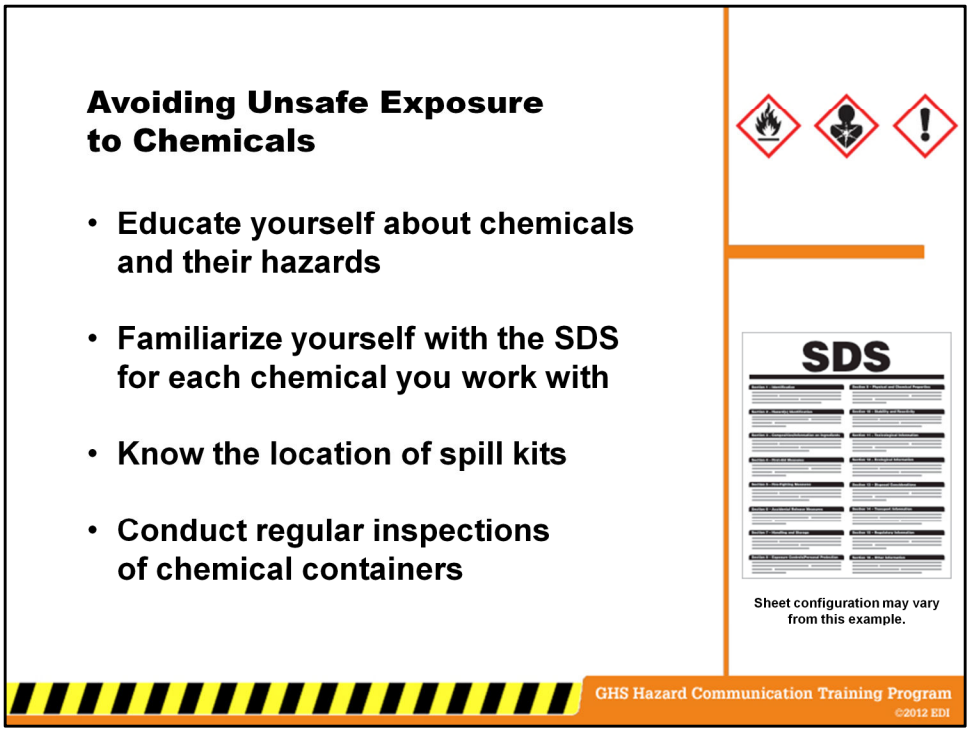
Section 16: Other Information
This section indicates when the SDS was prepared or when the last known revision was made. The SDS may also state where the changes have been made to the previous version. Other useful information also may be included here.

Housekeeping Procedures

Risk of being affected by hazardous chemicals depends on:

- Type of chemicals
- Work surroundings
- The way jobs are performed
- Employees' understanding of hazards and available protection

Sheet configuration may vary from this example.



The best way to protect yourself from illness or injury resulting from chemical exposure is to educate yourself about the chemicals you work with and the particular hazards of each chemical. Before working with any chemical you should read the SDS for that particular chemical and its hazards, instructions for safe handling and equipment requirements. Follow the SDS indications strictly and ask your supervisor for guidance on any safety issue.

To prevent leaks or spills, you should conduct regular inspections of chemical containers to ensure there are no leaks, worn seals, corrosion or holes. Be careful never to leave containers open after using them, and familiarize yourself with your company's procedure for disposing of chemicals which are no longer being used. If your employer has spill kits or other materials for responding to chemical exposure, you should learn where they are kept.

Instructor: Explain where spill kits are placed in your company.

Although you may take reasonable precautions to avoid a spill, sometimes they still occur. As a general rule, you should not try to clean up or handle a chemical spill unless you are assigned to your company's emergency response team and have received specialized training on handling spills.

If a spill occurs, you should report the incident immediately to your supervisor. Be prepared to tell your supervisor which chemical spilled, the location of the incident and the size of the spill.

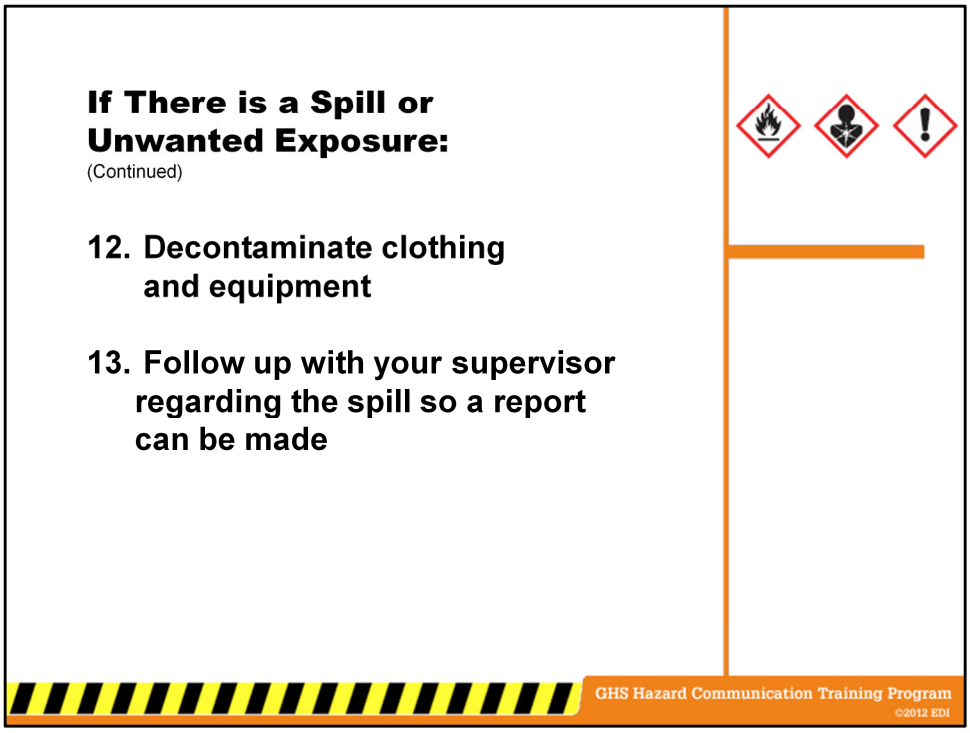
Instructor: Provide the names of the members of your company's emergency response team.

If There is a Spill or Unwanted Exposure:

1. Make sure individuals handling cleanup have proper authorization and training
2. Put on proper equipment, as indicated in SDS
3. Ensure there is proper ventilation in the area
4. Section off the area with a barrier

Pillows or sand should be available in the company's spill kit. Place the spill pillow over the spill so it can absorb the liquid. Sprinkle sand or an absorbent over the surface of the liquid that remains standing.

If you believe you have been exposed to chemicals on your skin, wash the area in warm water for 15 minutes and, if needed, seek medical treatment.



A report is not simply for notification purposes, but it is intended to help the company make appropriate changes so similar incidents can be avoided in the future.

Quick Review

Now that we have concluded this training presentation, you should have a clear understanding of:

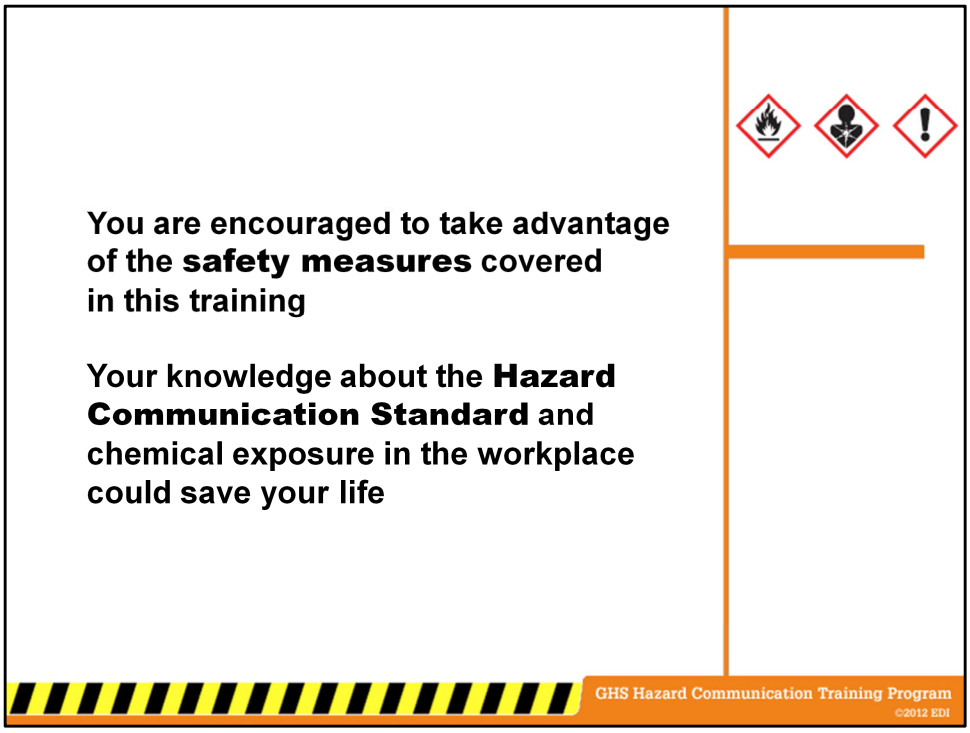
- The risks associated with hazardous chemicals in the workplace
- How a written hazard communication program helps reduce the risk of exposure to hazardous chemicals
- How to read labels

Quick Review
(Continued)

- The importance of reading and understanding information included in Safety Data Sheets (SDS)
- Housekeeping procedures

Quick Review
(Continued)

- How to avoid unsafe exposure to chemicals
- How to handle a spill or unwanted exposure to chemicals
- Other safety precautions to prevent and respond to exposure


You are encouraged to take advantage of the **safety measures** covered in this training
Your knowledge about the **Hazard Communication Standard** and chemical exposure in the workplace could save your life
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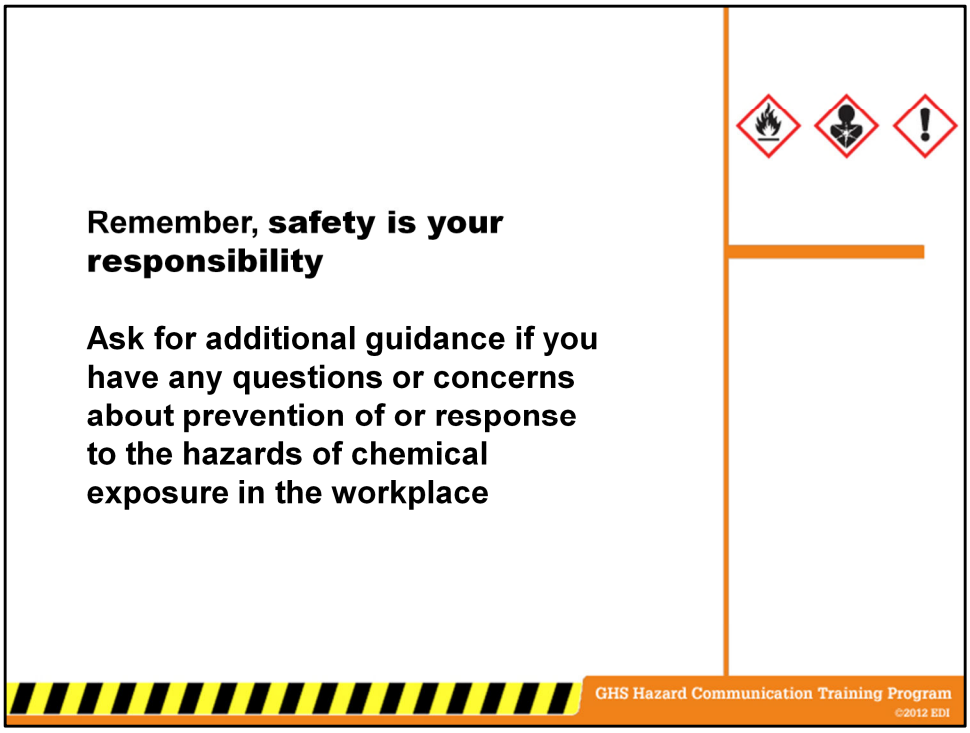
Remember, **safety is your responsibility**
Ask for additional guidance if you have any questions or concerns about prevention of or response to the hazards of chemical exposure in the workplace
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