

Hazard Communication



Chemical Safety

Introductory Comments

According to OSHA:

Understanding chemicals and the potential impact with employees and employers is important. It is also crucial to be able to classify the potential hazards of chemicals, communicate information concerning hazards, and communicate appropriate protective measures to employees (www.OSHA.gov).

Meeting Starter Questions

Are there any hazardous chemicals that you currently use or come into contact with during your work day?
Have you been trained on how to properly store and dispose hazardous chemicals within your workspace?
Do you know the proper steps to follow if an exposure were to happen?

Critical Safety Points

What Forms Do Chemicals Take:

•Solid •Liquid •Gas

How To Recognize Solid Chemicals:

•**Dusts and Particles:** Dust and powder can be found in the air. Dust and Powder is a reaction to cutting, drilling, grinding, and sanding. Cutting, drilling, grinding, and sanding produces dust and particles that can be inhaled.

•**Fumes and Fibers:** Fumes are classified as small droplets of metal formed metal has been vaporized by high temperatures, common in welding. Fibers are compounds that are similar to dust, but take on a elongated shape, an example of this would be asbestos or fiberglass.

How To Recognize Liquid Chemicals:

•**Liquids:** It is possible for liquid chemicals to have direct contact with the body, this could lead to absorption into the body.

•**Liquids/Mists:** It is possible for mists to be inhaled. Mists can also be absorbed into the body. Mists can also contaminate food and/or drinks.

How To Regocnize Gaseous Chemicals:

•**Gas:** Some gaseous chemicals occur naturally, however, some can form from liquids. Some examples of dangerous gaseous chemicals include: Carbon Monoxide, Hydrogen, Sulfide, and Ammonia.

How Do Chemicals Enter The Body?

•Ingestion

•Skin Contact

•Inhalation

•Injection

•Absorption



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- Ingestion:** Ingesting a chemical can occur through dirty hands contaminating food, drinks, or tobacco products. Chemicals in the air can settle on food and/or drinks and contaminate that way as well.
- Inhalation:** This occurs when airborne chemicals are breathed in through the mouth or nose. Knowing where the chemical settles in the respiratory track determines what symptoms or diseases will develop.
- Absorption:** Chemicals can pass through the skin and be absorbed into the body. Some examples of chemicals that can be absorbed through the skin include: Solvents and Pesticides.
- Skin Contact:** Corrosive chemicals can cause burns that are visible to skin. The extent of skin damage depends on how concentrated the corrosive chemical is and the duration of time that the corrosive chemical has had contact with the skin. Corrosive chemicals can damage the skin, eyes, and respiratory system.
- Injection:** Needles and sharp objects can cause injection hazards. Chemicals can enter the body through a break in the skin.

Important Resources for Hazard Communication:

•**SDS** (Safety Data Sheets):

Safety Data Sheets include information including the: properties of each chemical, physical health, environmental health hazards, protective measures, and safety precautions regarding handling, storing, and transporting (www.OSHA.gov).

•**GHS** (Globally Harmonized System):

The Globally Harmonized System provides criteria for classification of chemical hazards, and a standardized approach to label elements and Safety Data Sheets (www.OSHA.gov).

•**Pictograms**

Pictograms are symbols used to communicate specific information about the hazards of a chemical, there are a total of 9 Pictograms, however only 8 are used (www.OSHA.gov).

•**Labeling**

Labeling allows workers to have information on the specific hazards of a chemical (www.OSHA.gov). Every chemical container must have a label. The labels on the container must include:

Hazard Communication Responsibility:

Employers **MUST** train workers on new and existing chemicals that are handled in the workplace.

Use PPE To Keep Safe While Handling Hazardous Chemicals. This Includes:

- Glasses or Goggles
- Respirators
- Dust Mask

- Face Shields
- Foot Protection
- Full Body Protection

- Gloves
- Head Protection
- Eye Washing Stations



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What To Do When A Chemical Exposure Happens:

1. Inform your supervisor.
2. Determine what chemical was exposed.
3. Follow first-aid directions in the Safety Data Sheets (SDS).
4. Get medical attention as needed.
5. Check your PPE prior to returning to the area.

Remember:

- Always Read Labels On The Chemical Container
- Wear Specified Personal Protective Equipment (PPE)

- Follow SDS Instructions

For More information: www.osha.gov



City of Memphis Workplace Safety & Compliance
Safety Is the Way We **Live!**



MONTHLY SAFETY AWARENESS EMPLOYEE QUIZ

Employee Name:	Signature:
Division:	Date:
Instructor:	Score:

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Question 1: When handling hazardous chemicals, we should never utilize PPE.

- TRUE FALSE

Question 2: SDS is now used in place of MSDS.

- TRUE FALSE

Question 3: Pictograms are images used to communicate hazards about a chemical.

- TRUE FALSE

Question 4: Workers could be exposed to a hazardous chemical when eating or drinking.

- TRUE FALSE

Question 5: It is important to be able to classify hazardous chemicals.

- TRUE FALSE

Quiz Answer Key:

1. FALSE
2. TRUE
3. TRUE
4. TRUE
5. TRUE

