



# Hazard Communication

# Introduction

- About 32 million workers work with and are potentially exposed to one or more chemical hazards
- There are approximately 650,000 existing chemical products, and hundreds of new ones being introduced annually
- Chemical exposure may cause or contribute to many serious health effects such as heart ailments, central nervous system damage, kidney and lung damage, sterility, cancer, burns, and rashes

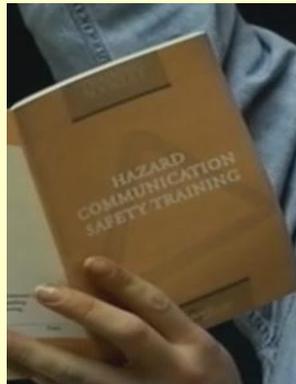
Some chemicals may also be safety hazards and have the potential to cause fires and explosions and other serious accidents.



# Purpose of OSHA's Hazard Communication Standard

To ensure that employers and employees know about work hazards and how to protect themselves so that the incidence of illnesses and injuries due to hazardous chemicals is reduced.

Hazard  
Communication  
Program



Container  
Labelling



Material Safety  
Data Sheet



# Who is covered?

OSHA's Hazard Communication (HazCom) standard applies to general industry, shipyards, marine terminals, long shoring, and construction employment and covers chemical manufacturers, importers, employers, and employees exposed to chemical hazards.

# Employer Responsibilities



- Identify and list hazardous chemicals in their workplaces
- Obtain Material Safety Data Sheets (MSDSs) and labels for each hazardous chemical, if not provided by the manufacturer, importer, or distributor
- Implement a written HazCom program, including labels, MSDSs, and employee training
- Communicate hazard information to employees through labels, MSDSs, and formal training programs

# Understanding Chemicals

HazCom is designed to eliminate the potential dangers by giving employees the tools necessary to understand:

1. The physical hazards chemicals can cause
2. The health hazards chemicals can cause
3. Routes for exposure to chemicals



# Understanding Chemicals

Chemical physical hazards fall into mainly three categories

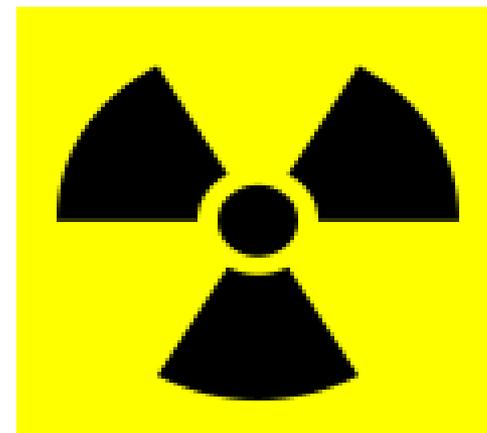
Explosive



Flammable



Reactive



# Understanding Chemicals

Chemical health hazards fall into mainly four categories.

1. Carcinogen – Causes cancer
2. Corrosive – Burn, destroy or eat away
3. Toxin – Causes sickness
4. Irritant – Reversible inflammation effect

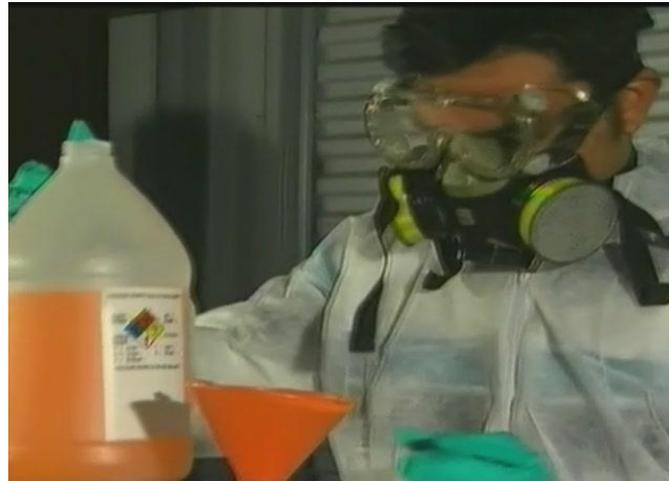
Effects of chemicals can be Acute or chronic

- Acute - effects that usually occur rapidly as a result of short-term exposures, and are of short duration
  - Chronic-effects that generally occur as a result of long-term exposure, and are of long duration.

# Chemical Labels

Each container of hazardous chemicals entering the workplace must be labelled or marked with:

- Identity of the chemical
- Appropriate hazard warnings



<b>Substance Identity</b>	
<input type="radio"/>	<b>HEALTH</b>
<input type="radio"/>	<b>FLAMMABILITY</b>
<input type="radio"/>	<b>PHYSICAL HAZARD</b>
<input type="radio"/>	<b>PERSONAL PROTECTION</b>
<b>Health Hazards</b>	

# Chemical Labels

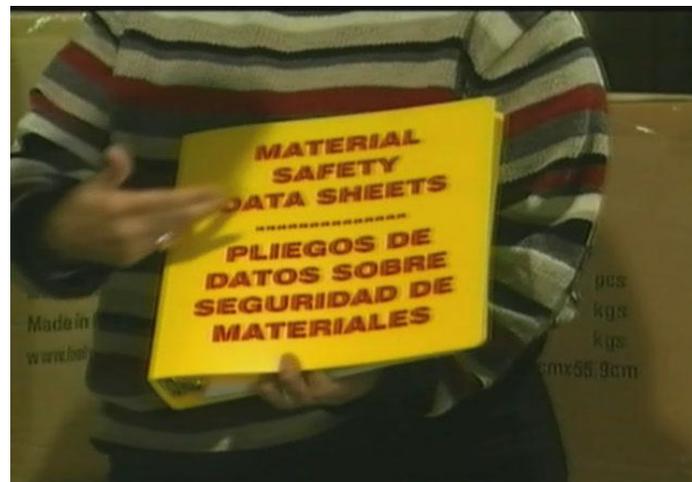
- The hazard warning can be any type of message, picture, or symbol that provides information on the hazards of the chemical(s) and the targeted organs affected, if applicable
- Labels must be legible, in English (plus other languages, if desired), and prominently displayed



# Material Safety Data Sheets

Prepared by the chemical manufacturer or importer and describe:

- Physical hazards, such as fire and explosion
- Health hazards, such as signs of exposure
- Routes of exposure
- Precautions for safe handling and use
- Emergency and first-aid procedures
- Control measures



# Material Safety Data Sheets

- Must be in English and include information regarding the specific chemical identity and common names
- Must provide information about the:
  - ⊗ Physical and chemical characteristics
  - ⊗ Health effects
  - ⊗ Exposure limits
  - ⊗ Carcinogenicity (cancer-causing)
  - ⊗ Identification (name, address, and telephone number) of the organization responsible for preparing the sheet
- Must be readily accessible to employees in their work area



# Personal Protective Equipment

To reduce the potential for risk of exposure, PPE should be worn that is appropriate for the chemical being used. Information on the correct PPE can usually be found on the chemical's label. MSDSs may also provide information on PPE. PPE is generally divided into three groups:



1. Eye protection-safety glasses, goggles and face shields
2. Hand and body protection-gloves and aprons
3. Respiratory-respirators, masks and self-contained breathing apparatus

# Exposure to Hazardous Chemicals

Avoiding exposure to hazardous chemicals is extremely important. Following chemical and MSDS warnings will help minimize exposure.

First-aid instructions are listed on the MSDS and should be followed until medical help arrives. First-aid might include:

1. Flushing eyes with emergency eyewash.
2. Removing contaminated clothing and washing contact area of body.
3. Applying cool water on burn area.
4. Moving to open area to get fresh air.



# Leaks and Spills

Employees need to act quickly in such situations:

- Leave the area immediately
- and warn others
- Provide first-aid if needed
- Inform appropriate personnel
- (managers, first responders)
- Shut operations down, if necessary



Some spills and leaks will require trained professionals to clean up the hazardous chemical.

# Summary

- OSHA's Hazard Communication Standard gives employees the right to know about chemical hazards in the workplace. Employers have obligations to provide employees with training, information, PPE and other safety measures dealing with chemical hazards. Employees should remember to:
  - Take training seriously and pay attention
  - Read labels and MSDS
  - Know where to find the MSDSs
  - Use appropriate PPE
  - Know correct emergency procedures
  - Use safe work habits





# Quiz

Click on the link below to take a 5-Question Quiz.

[https://secure.rutherfordcountyttn.gov/HAZCOM\\_2011/](https://secure.rutherfordcountyttn.gov/HAZCOM_2011/)

Once you have linked to the quiz, please enter your Social Security Number at the top. You will need to enter it according to the example shown (ex. 999-99-9999 with hyphens included).

Once finished with the questions, please click the submit button and your training will be recorded.

Note: It takes 90 days for newly hired employees to be loaded to the training database. In this case print out the quiz and submit to your supervisor or safety training point of contact.