Olive View Medical Center
ENVIRONMENT OF CARE

"Hazard Communication"

Close Encounters with Chemicals

- We encounter chemicals almost every day
  - Filling your vehicle with gasoline
  - Cleaning the bathroom
  - Applying pesticides or insecticides
  - Using solvents or acids at work
- Many chemicals can cause injury or illness if not handled properly.

Hazard Communication 'Goals'

Your training goals are:

- Right to Know chemical hazards
- Personal Protective Equipment (PPE), first aid, spills/leaks
- Labels, Material Safety Data sheets
- Quiz

Right to Know

- The Occupational Safety & Health Administration (OSHA) created the Hazard Communication Standard to help ensure your safety when working with hazardous chemicals. (California-Cal/OSHA)
- You have a **RIGHT TO KNOW** about the hazardous chemicals you use on the job and how to work safely with those chemicals.

Hazard Communication Standard

Chemical manufacturers must:

- Determine a chemical's hazards
- Provide labels and MSDSs

Employers must:

- Provide a hazard communication program
- Maintain MSDSs
- Train on hazardous materials

HazCom Standard (cont.)

Employees must:

- Read labels and MSDSs
- Follow employer instructions and warnings
- Identify hazards before starting a job
- Participate in training

Chemical Hazards

A chemical hazard will consist of:

Physical Hazards:

- Flammable
- Explosive
- Reactive

Health Hazards:

- Corrosive
- Toxic

Routes of Entry

Chemicals can enter the body by:

- Skin and eye contact
- Inhalation
- Swallowing
- Penetration (skin absorption)

Chemical Exposure

Chemical exposure consists of:

- Dosage
- Acute effects
- Chronic effects

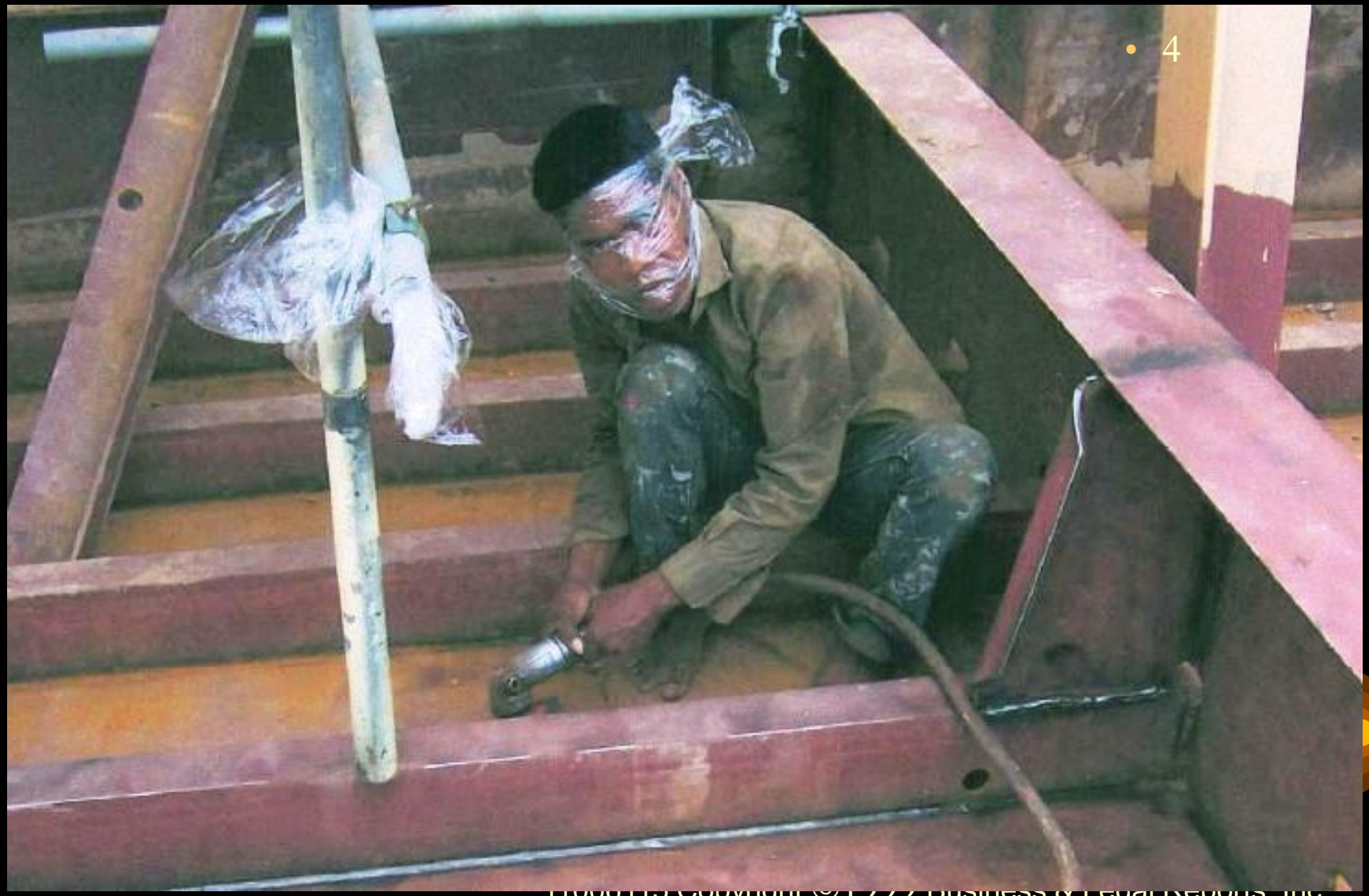
Personal Protective Equipment

Types of PPE are:

- Dust masks and respirators
- Glasses, goggles, and face shields
- Hearing protection
- Gloves
- Foot protection
- Head protection
- Aprons or full-body suits

Hazard Communication

Face Mask??



Hazardous Materials First Aid

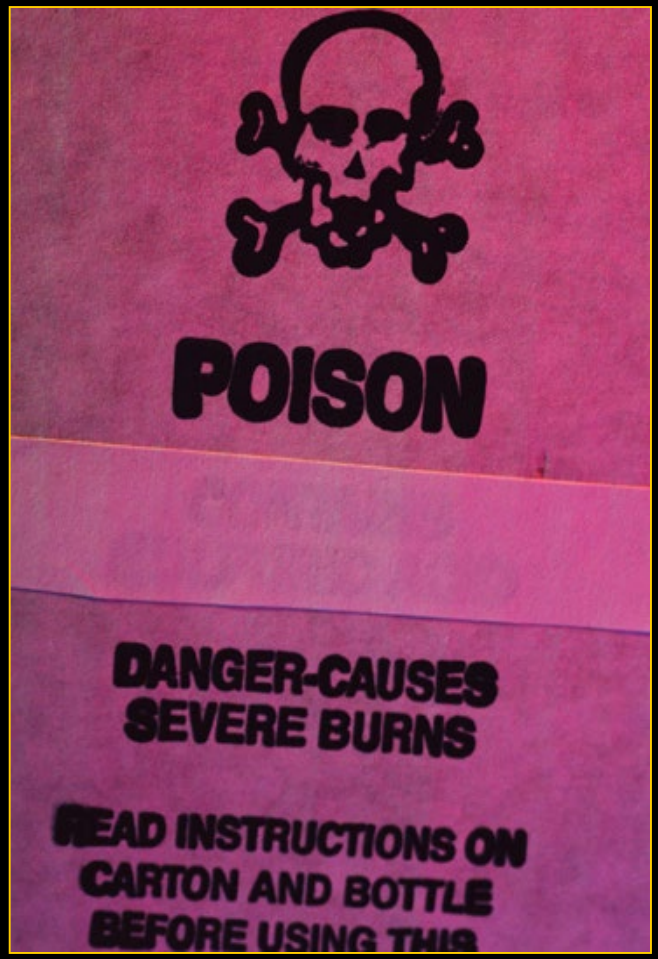
- Eyes: Flush with water for 15 minutes
- Skin: Wash with soap and cool/cold water
- Inhalation: Quickly move to fresh air
- Swallowing: Get emergency medical assistance

Spills and Leaks

- Evacuate the immediate area, control entry
- Post signs and/or barricades
- Notify immediate supervisor
- Notify Environmental Health & Safety dial (747) 210-3405 or Hospital Operator x111,
- If safe to do so, contain spill and remove any ignition sources

Importance of Labels

- Identity of the chemical
- Name, address, and emergency phone number of the manufacturer
- Physical and health hazards
- Special handling instructions
- Basic PPE recommendations
- First aid, fire response, spill cleanup procedure

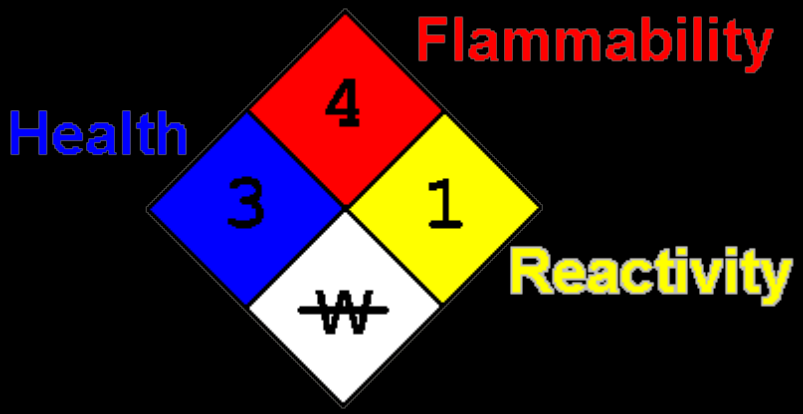


NFPA Labeling Systems

National Fire Protection Association Label

- Blue = Health
- Red = Flammability
- Yellow = Reactivity
- White = Other hazards or special handling

Scale: 0 (No Hazard) to 4 (Extreme Hazard)



Other Label Warnings

- Identity of the chemical
- Name, address, and emergency phone number of the manufacturer
- Physical and health hazards
- Special handling instructions
- Basic PPE recommendations
- First aid, fire response, spill cleanup

(Material) Safety Data Sheet Program

- Reading an MSDS/SDS
- MSDS/SDS locations (employees should ask you the Safety Coordinators for the exact location)

MSDS vs SDS

- Two Systems – at the same time
- Provided by the manufacturer for products that contain hazardous chemical
- Detailed written safety information
- Each product containing hazardous material should have a **MSDS or SDS**
- Available in your area at all times

MSDS vs SDS

- **MSDS** – Required Info.:

1. Product identification
2. Manufacturer identification
3. Hazardous ingredients, Permissible Exposure Limit & Threshold Limit Value
4. Physical & Chemical Properties
5. Physical Hazards

- **SDS** - Required Format:

1. Identification
2. Hazards Identification
3. Composition/ Ingredients
4. First-aid measures
5. Fire-fighting measures
6. Accidental release Measures
7. Handling & storage

MSDS vs SDS (cont.)

MSDS (cont.)

6. Health hazards & Potential routes of entry
7. Carcinogenicity
8. Safe use & Handling
9. Control measures/PPE
10. Spill clean-up
11. Emergency & first-aid
12. Date of preparation

SDS (cont.)

8. Exposure controls/ Personal protection
9. Physical/chemical Properties
10. Stability & reactivity
11. Toxicological info.
12-16. Ecological, disposal, transport, regulatory & other information.

Hazard Communication Summary

In summary:

- Identify chemical hazards by reading labels and MSDS/SDS's
- Follow warnings and instructions, or ask your supervisor if in doubt
- Use the correct personal protective equipment (PPE)
- Practice sensible, safe work habits
- Learn emergency procedures

MSDS/SDS

- To find a specific **MSDS** or **SDS**, contact Environmental Health & Safety

  (747) 210-3405

Hazard Communication

Comments

- Questions or comments??

Quiz

Q. Chemical manufacturer's must label containers and provide _____.

A. Material safety data sheets must be provided by the manufacturer.

Q. Employers should keep material safety data sheets in a locked file cabinet. True or False

A. False. MSDS/SDSs must always be accessible to the employees.

Q. Dizziness, nausea, rashes, and respiratory irritation are signs of _____ exposure.

Quiz (cont.)

A. These are all symptoms of acute effects, or short-term exposure.

Q. List three routes by which a chemical can enter the body: _____, _____, _____.

A. The primary routes chemicals enter the body are skin and eye contact, inhalation, and swallowing.

Q. Household chemicals are never as hazardous as chemicals used at work. True or False

A. False. Many household chemicals are more hazardous than chemicals found at work.

Quiz (cont.)

Q. On NFPA labels, a 4 in the red diamond indicates an extreme health hazard. True or False

A. False. The red diamond indicates flammability hazards, not health hazards.

Q. Typical first-aid for chemicals splashed in the eyes includes _____.

A. Flushing the eyes for 15 minutes is the typical first aid for chemicals splashed in the eyes.

Q. You will only know the health hazards and PPE requirements if you _____.

Quiz (cont.)

A. You must read the labels and MSDSs to learn how to protect yourself from the hazards of a chemical.

Q. A _____ can be used to protect against breathing hazardous vapors or gases.

A. Respirators protect against breathing hazardous vapors and gases.

Q. If you see a chemical spill, you should clean it immediately. True or False

A. False. Only attempt to clean a chemical spill if you've been properly trained.