

Hazard Communication

Division of Administration
Office of Risk Management

PRETEST

- What makes a chemical “hazardous”?
- What is a MSDS?
- Where do MSDSs come from?
- Where should MSDSs be found?
- What containers should be labeled?
- Who should receive hazardous materials training?



COURSE OBJECTIVES

- Educate Agencies/Employees
- Hazardous Chemical Determination
- Establish Hazardous Chemicals Program in the workplace
- Prevent accidents and property damage

DEFINITIONS

HAZARDOUS CHEMICAL:

Any element, chemical compound, or mixture that is a physical hazard or a health hazard



DEFINITIONS

PHYSICAL HAZARD

- Combustible liquid
- Compressed gas
- Explosive
- Flammable
- Water-reactive
- Starts or promotes combustion in other materials
- Can ignite spontaneously
- Oxidizer

DEFINITIONS

HEALTH HAZARD

- Health hazards can be acute or chronic
 - Agents that damage lungs, skin, eyes, or mucous membranes
 - Carcinogens
 - Corrosives
 - Hematopoietic



DEFINITIONS

HEALTH HAZARD

- Hepatotoxins
- Irritants
- Nephrotoxins
- Neurotoxins
- Reproductive toxins
- Sensitizers

DEFINITIONS

- **COMMUNICATION:**
 - THE PROCESS OF EXCHANGING INFORMATION THROUGH COMMON SYMBOLS

EMPLOYEES RIGHT TO KNOW

- **HAZARD COMMUNICATION STANDARD - Employee Right to Know Law**
 - Material safety data sheets must be available to the employee
 - All chemical containers must be labeled
 - A written plan must be available
 - Training, equipment, and PPE must be provided
 - Follow warnings and instructions

INVENTORY

■ HAZARD CHEMICALS INVENTORY

- The employer is required to maintain a list of all hazardous chemicals present in the work area. The list must include:
 - Each hazardous chemical by the primary name on the label
 - The manufacturer or distributor of the chemical, and
 - Chemical abstract number (CAS).

LABELING

■ LABELING

- The employer shall ensure that all hazardous chemicals are properly labeled.
 - Containers of hazardous chemicals must have labels which identify the material and warn of its potential hazard to employees.

LABELING Cont.

■ LABEL INFORMATION:

- Chemical's identity
- Name/address of manufacturer or supplier
- Physical hazards
- Health Hazards
- Storage and handling
- Protective clothing, equipment, and procedures

LABELING Cont.

■ **VOLUNTARY LABELING STANDARDS:**

- signal words - DANGER, WARNING, CAUTION
- highly toxic materials shall be marked POISON
- precautionary measures useful in preventing physical harm to the individual
- instructions in case of exposure
- notes to physician for emergency treatment
- instructions in case of fire or chemical spill
- instructions for chemical handling and storage

DIRECTIONS FOR USE

THIS PRODUCT IS CONCENTRATED AND SHOULD BE DILUTED AS FOLLOWS:

4 oz./1 qt. of water,
16 oz./1 gal. of water

IF WINDOWS ARE NOT GREASY AND A SQUEEGE IS TO BE USED DILUTION IS:

2 oz./1 qt. of water,
8 oz./1 gal. of water

COMBUSTIBLE

Combustible **only** when in concentrated form. When diluted according to label directions product is non-combustible.

**SUN FLO
GLASS & WINDOW
CLEANER 4-21**

CAUTION

CAUTION

ACTIVE INGREDIENTS

TETRAPOTASSIUM PYROPHOSPHATE	1%
ETHYLENE GLYCOL MONOBUTYL ETHER	5%
SODIUM GLUCONATE	1%
AMMONIUM HYDROXIDE	5%
ISOPROPYL ALCOHOL	24%
SODIUM LINEAR ALKYL NAPHTHALENE SULFONATE	2.5%
INERT INGREDIENTS	61.5%

KANSAS CORRECTIONAL INDUSTRIES—Box 2—Lansing, KS 66043-0002

**POISON
DO NOT TAKE
INTERNALLY OR GET
IN EYES**

FIRST AID

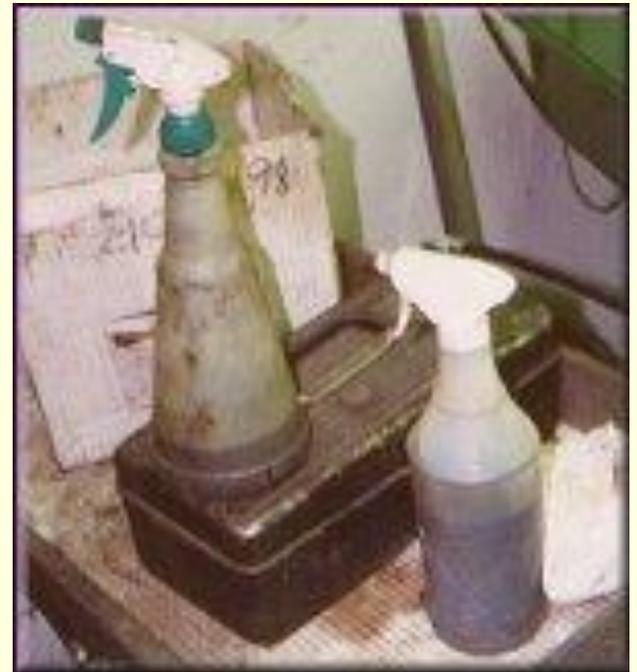
EYE CONTACT—Flush eyes with fresh cold water for 10-15 minutes. **Contact a physician.**

SKIN CONTACT—Usually none when used in solution. If used straight, rubber gloves should be worn. Wash skin with soap and water. If irritation persists, contact a physician.

INGESTION—Induce vomiting at once (give a teaspoon of salt in glass of warm water). **Contact a physician immediately.**

LABELING Cont.

- **SECONDARY CONTAINER LABELING**
 - Portable containers of working solutions shall be labeled appropriately



DOT Placards

1 Explosives

2 Gases

3 Flammable

4 Flammable Solid,
spontaneously
combustible, &
dangerous when
wet



DOT Placards Cont.

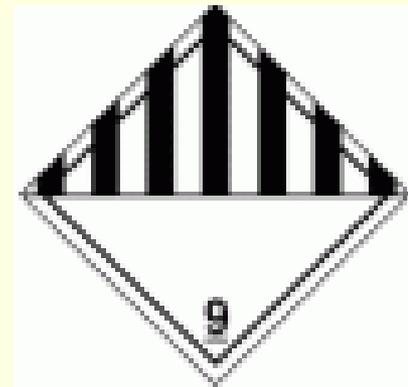
5 Oxidizing Substances

6 Poisons & Infectious

7 Radioactive

8 Corrosive Materials

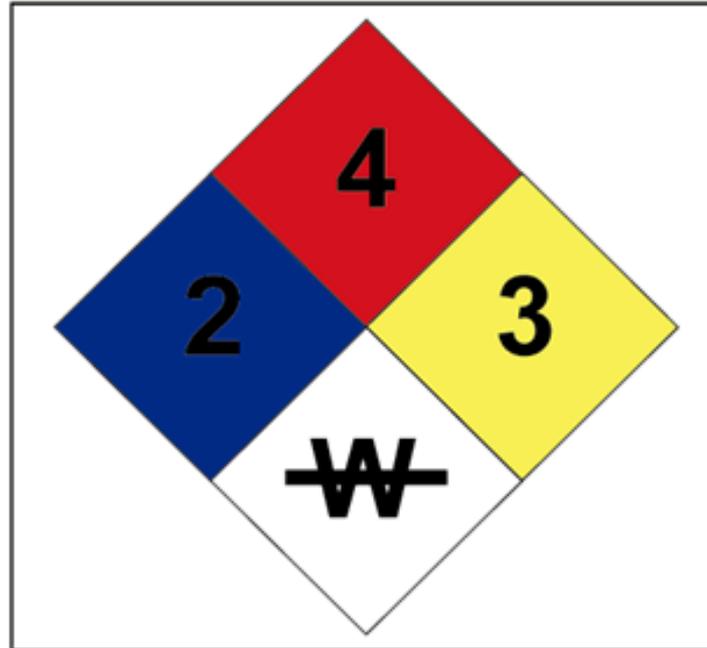
9 Miscellaneous



NFPA 704

(red)
Fire hazard
Flash points:
4 Below 73 F°
3 Below 100 F°
2 Above 100 F°, not exceeding 200 F°
1 Above 200 F°
0 Will not burn

(blue)
Health hazard
4 Deadly
3 Extreme danger
2 Hazardous
1 Slightly hazardous
0 Normal material



(yellow)
Reactivity
4 May detonate
3 Shock and heat may detonate
2 Violent chemical change
1 Unstable if heated
0 Stable

(white)
Specific hazard
Oxidizer OX
Acid ACID
Alkali ALK
Corrosive COR
Use NO WATER 
Radioactive 

HMIS

HEALTH	<input type="checkbox"/>
FLAMMABILITY	<input type="checkbox"/>
REACTIVITY	<input type="checkbox"/>
PERSONAL PROTECTION	<input type="checkbox"/>

MSDS

- **Material Safety Data Sheets (MSDS)**
 - Product Information
 - Hazardous Ingredients/Identity Information
 - Physical and Health Hazards
 - First Aid Measures
 - Fire and Explosion Hazard Data

MSDS Cont.

- **Material Safety Data Sheets (MSDS)**
 - Accidental Release Measures
 - Handling and Storage
 - Exposure Controls/Personal Protection
 - Physical and Chemical Properties
 - Stability and Reactivity

MSDS Cont.

- **Material Safety Data Sheets (MSDS)**
 - Toxicological Information
 - Ecological Information
 - Disposal Considerations
 - Transportation Information
 - Regulatory Information
 - Other Information

MSDS

- **Material Safety Data Sheets (MSDS) need to be:**
 - Readily accessible
 - User friendly
 - Current
 - Secured upon receipt of the chemical
 - Contractors Included



WRITTEN PROGRAM

Site-specific written program includes:

- List of Responsible Persons
- Hazardous Chemicals inventory
- Labeling requirements
- MSDS guidelines
- Guidelines for receipt through disposal

WRITTEN PROGRAM Cont

Site-specific written program includes:

- Employee information and training
- Personal Protective Equipment (PPE), required safety equipment, and training
- Guidelines for proper handling, storage, and disposal of hazardous chemicals
- Emergency procedures including spills and leaks

Employee Training

The employer must provide information and training for an employee working with chemicals including new hire employees or when an employee changes positions and/or is using a different type of chemical.

Post Test

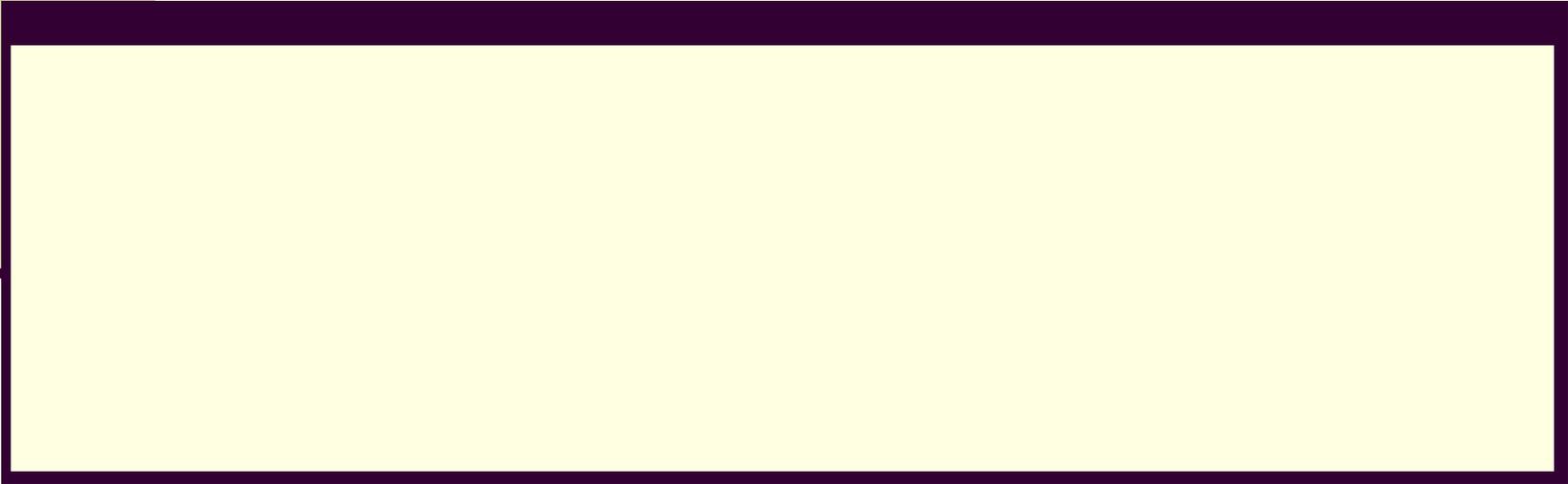
1. The Hazard Communication standard requires the employer to inform employees of potential chemical hazards in the work place. (True or False)
- 2 Portable containers must be labeled. (True or False)

Post Test

3. Give three examples of a physical hazard in regards to a chemical:
4. Material Safety Data Sheets should be secured in a locked cabinet. (True or False)



QUESTIONS?



Delgado Community College
Hazard Communications

I have read and understand the training information provided on Hazard Communications. I acknowledge that revisions to the training material may be required periodically.

Employee Signature _____

Employee Printed Name _____

Date _____