Workplace Hazards & Warnings

Written By: Hannah Ward

INTRODUCTION

The **Compliance Manager** is responsible to ensure that employees receive Workplace Hazards & Warnings training. After attending the training, employees will sign a form verifying that they understand the above topics and how the topics are related to our hazard communication plan.

Prior to introducing a new chemical hazard into any department , each employee in that department will be given information and training as outlined above for the new chemical hazard.

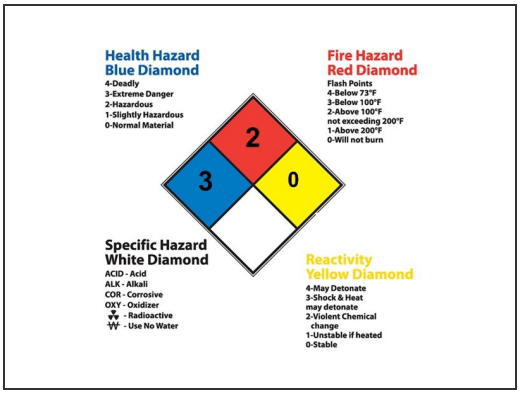
— Training Employees about Chemical Hazards

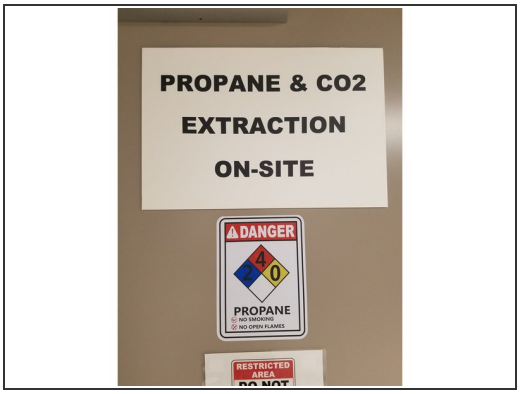
Before they start their jobs or are exposed to new hazardous chemicals, employees must attend a hazard communication training that covers the following topics:

- An overview of the requirements in OSHA's Hazard Communication Standard.
- Hazardous chemicals present in their workplace.
- Any operations in their work area where hazardous chemicals are used.
- The location of the written hazard communication plan and where it may be reviewed.
- How to understand and use the information on labels and in Safety Data Sheets.
- Physical and health hazards of the chemicals in their work areas.
- Methods used to detect the presence or release of hazardous chemicals in the work area.
- Steps we have taken to prevent or reduce exposure to these chemicals.
- How employees can protect themselves from exposure to these hazardous chemicals through the use of engineering controls/work practices and personal protective equipment.
- An explanation of any special labeling present in the workplace.
    1. What are pictograms?
    2. What are the signal words?
    3. What are the hazard statements?
    4. What are the precautionary statements?
- Emergency procedures to follow if an employee is exposed to these chemicals.

- Prior to introducing a new chemical hazard into any department , each employee in that department will be given information and training as outlined above for the new chemical hazard.

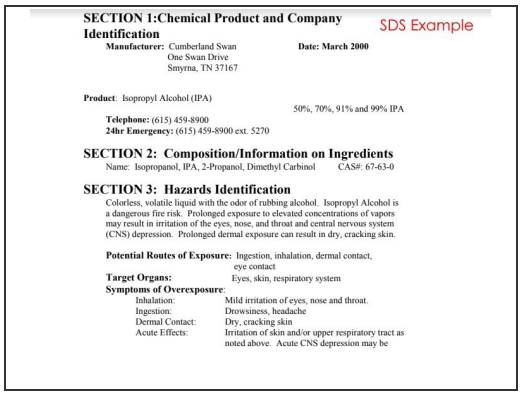
— Identifying Hazardous Chemicals





- A Hazard Diamond can be found on the door to all areas that contain hazardous materials.
- A folder located in the nutrient room and outside the LAB/Kitchen area has a physical binder of printed Safety Data Sheets (SDSs) it is also located digitally here on google drive that identifies all hazardous chemicals with a potential for employee exposure at this workplace.
- Detailed information about the physical, health, and other hazards of each chemical is included in a Safety Data Sheet (SDS); the product identifier for each chemical on the list matches and can be easily cross-referenced with the product identifier on its label and on its Safety Data Sheet.

— Keeping Safety Data Sheets



SDS Example

SECTION 1:Chemical Product and Company Identification

Manufacturer: Cumberland Swan One Swan Drive Smyrna, TN 37167 **Date: March 2000**

Product: Isopropyl Alcohol (IPA) 50%, 70%, 91% and 99% IPA

Telephone: (615) 459-8900
24hr Emergency: (615) 459-8900 ext. 5270

SECTION 2: Composition/Information on Ingredients

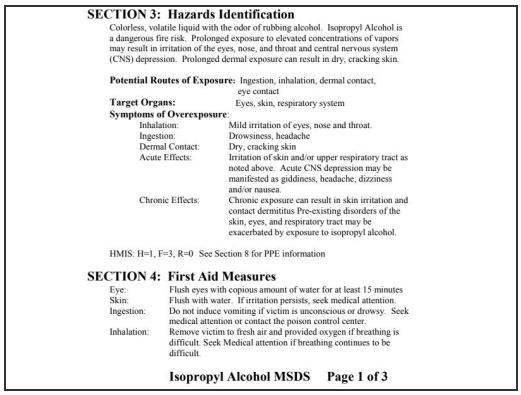
Name: Isopropanol, IPA, 2-Propanol, Dimethyl Carbinol CAS#: 67-63-0

SECTION 3: Hazards Identification

Colorless, volatile liquid with the odor of rubbing alcohol. Isopropyl Alcohol is a dangerous fire risk. Prolonged exposure to elevated concentrations of vapors may result in irritation of the eyes, nose, and throat and central nervous system (CNS) depression. Prolonged dermal exposure can result in dry, cracking skin.

Potential Routes of Exposure: Ingestion, inhalation, dermal contact, eye contact
Target Organs: Eyes, skin, respiratory system
Symptoms of Overexposure:

Inhalation:	Mild irritation of eyes, nose and throat.
Ingestion:	Drowsiness, headache
Dermal Contact:	Dry, cracking skin
Acute Effects:	Irritation of skin and/or upper respiratory tract as noted above. Acute CNS depression may be



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Target Organs: Eyes, skin, respiratory system
Symptoms of Overexposure:

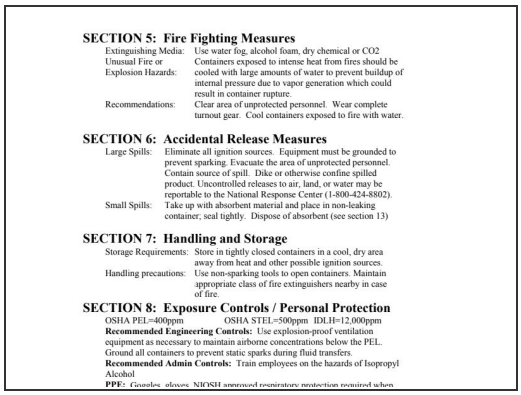
Inhalation:	Mild irritation of eyes, nose and throat.
Ingestion:	Drowsiness, headache
Dermal Contact:	Dry, cracking skin
Acute Effects:	Irritation of skin and/or upper respiratory tract as noted above. Acute CNS depression may be manifested as giddiness, headache, dizziness and/or nausea.
Chronic Effects:	Chronic exposure can result in skin irritation and contact dermititus Pre-existing disorders of the skin, eyes, and respiratory tract may be exacerbated by exposure to isopropyl alcohol.

HMIS: H=1, F=3, R=0 See Section 8 for PPE information

SECTION 4: First Aid Measures

Eye:	Flush eyes with copious amount of water for at least 15 minutes
Skin:	Flush with water. If irritation persists, seek medical attention.
Ingestion:	Do not induce vomiting if victim is unconscious or drowsy. Seek medical attention or contact the poison control center.
Inhalation:	Remove victim to fresh air and provided oxygen if breathing is difficult. Seek Medical attention if breathing continues to be difficult.

Isopropyl Alcohol MSDS Page 1 of 3



SECTION 5: Fire Fighting Measures

Extinguishing Media:	Use water fog, alcohol foam, dry chemical or CO2
Unusual Fire or Explosion Hazards:	Containers exposed to intense heat from fires should be cooled with large amounts of water to prevent buildup of internal pressure due to vapor generation which could result in container rupture.
Recommendations:	Clear area of unprotected personnel. Wear complete turnout gear. Cool containers exposed to fire with water.

SECTION 6: Accidental Release Measures

Large Spills:	Eliminate all ignition sources. Equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Contain source of spill. Dike or otherwise confine spilled product. Uncontrolled releases to air, land, or water may be reportable to the National Response Center (1-800-424-8802).
Small Spills:	Take up with absorbent material and place in non-leaking container; seal tightly. Dispose of absorbent (see section 13)

SECTION 7: Handling and Storage

Storage Requirements:	Store in tightly closed containers in a cool, dry area away from heat and other possible ignition sources.
Handling precautions:	Use non-sparking tools to open containers. Maintain appropriate class of fire extinguishers nearby in case of fire.

SECTION 8: Exposure Controls / Personal Protection

OSHA PEL=400ppm OSHA STEL=500ppm IDLH=12,000ppm
Recommended Engineering Controls: Use explosion-proof ventilation equipment as necessary to maintain airborne concentrations below the PEL. Ground all containers to prevent static sparks during fluid transfers.
Recommended Admin Controls: Train employees on the hazards of Isopropyl Alcohol
PPE: Goggles, gloves, NIOSH approved respiratory protection required when

- The manufacturer or importer of a chemical is required by OSHA to develop a Safety Data Sheet (SDS) that contains specific, detailed information about the chemical's hazard using a specified format. The distributor or supplier of the chemical is required to provide this SDS to the purchaser.
- SDS's are readily available to all employees during their work shifts. Employees can review SDS for all hazardous chemicals used at this workplace. To access, scan the QR code posted below the SDS signs in the cultivation to access the digital folder containing files for all the SDS sheets for chemicals used in the cultivation.
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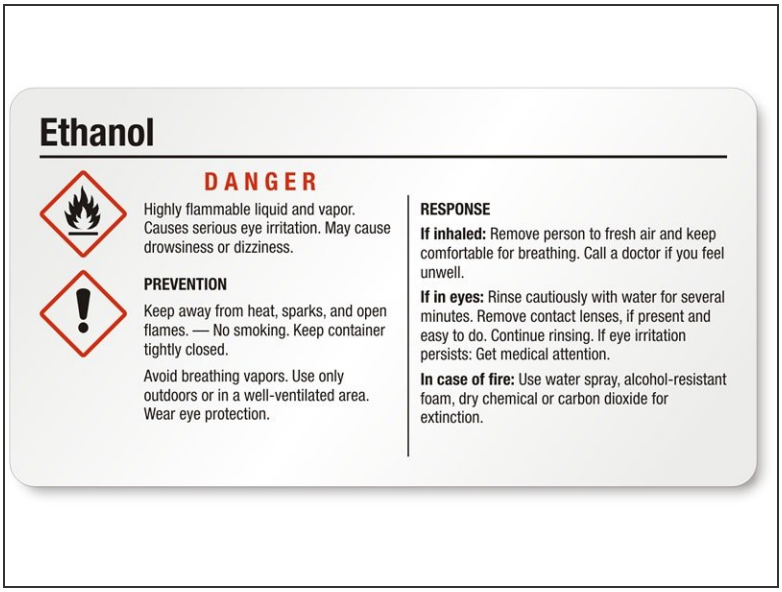
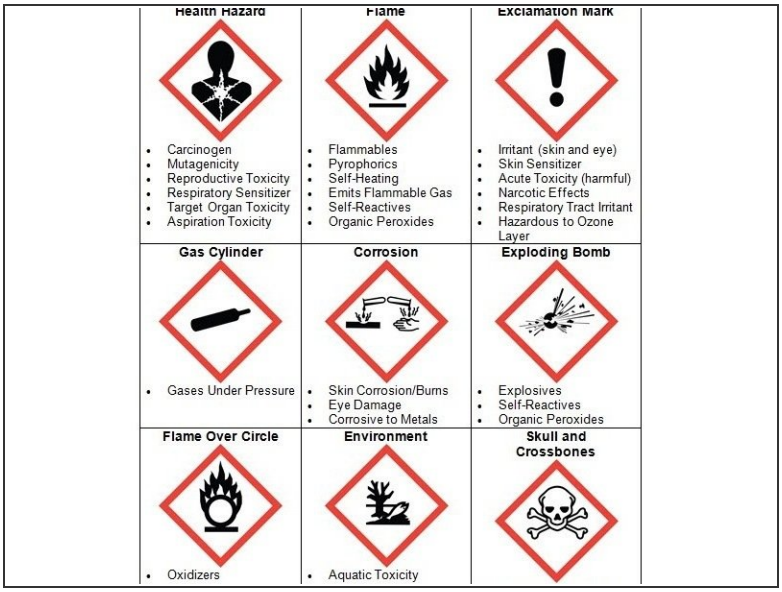
- As you can see in the example of Isopropyl Alcohol, each section breaks down important information you may need when handling the hazardous material using **signal words** to tell us the degree of danger and **hazard statements** to describe the nature of the hazard.

— Hazardous Material Labeling





- Hazardous Material will be labeled with signal words & hazard statements as you can see on the example label pictured for Ethanol.
- There are only two words used as **signal words**, “Danger” and “Warning.” Within a specific hazard class, “Danger” is used for the more severe hazards and “Warning” is used for the less severe hazards. There will only be one signal word on the label no matter how many hazards a chemical may have.
- A **hazard statement** is a phrase that describes the nature of the hazard in the substance or mixture. ... Examples of hazard statements include: Causes serious eye damage. Toxic if swallowed. Toxic to the aquatic life with long lasting effects
- Examples of the symbols used can be found on the pictured chart.

— Informing contractors and other employers about our hazardous chemicals

- If employees of other employer(s) may be exposed to hazardous chemicals at our workplace (for example, employees of a construction contractor working on-site) It is the responsibility of the Director of Operations to provide contractors and their employees with the following information:
  - The identity of the chemicals, how to review our Safety Data Sheets, and an explanation of the container labeling system.
  - Safe work practices to prevent exposure.
- The Director of Operations will also obtain a Safety Data Sheet for any hazardous chemical a contractor brings into the workplace

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This written hazard communication plan is available at the following location for review by all employees:

Operations Office, 10 Industrial Blvd, Turners Falls, MA 01376