Hazardous Communication Training

Training & Development
903-468-3021

Department of Risk Management and Safety
903-468-8781

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What Rules Apply?

- **Chapter 502 of the Texas Health and Safety Code**
  The Texas Hazard Communication Act (revised 1993) requires public employers to provide employees with specific information on the hazards of chemicals to which they may be exposed in the workplace.

- **OSHA 29 CFR 1910.1200**
  The Occupational Safety and Health Administration provides the guidelines and describes the necessary components of Hazardous Communications in the workplace.

- **A&M Commerce Hazardous Communication Program**
  Texas A&M University-Commerce has established procedures that every department on campus must follow in order to meet the requirements of federal and state regulations.

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What is the Purpose of the Hazardous Communication Act?

- The purpose of the Hazardous Communication Act is to make sure that the hazards of chemicals in the workplace are evaluated and communicated to employees in a way that they can understand and use the information.
What is Covered in Hazardous Communication Training?

**Covered Topics:**

- Employee Training
- Rights and Responsibilities
- Material Safety Data Sheets
- Container Labels
- Physical and Health Hazards
- Hazardous Materials Release and Exposures
- Protective Measures
- Workplace Chemical List
- Disposal Procedures

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Employee Training

**There are two types of Hazardous Communication Training**

1. **General Hazard Communication Training**
   - Administered by the Department of Risk Management and Safety and the Department of Human Resources
   - Introduction to the Hazardous Communication Program and Regulations

2. **Site-Specific Hazard Communication Training**
   - Provided by your Department Supervisor, Director, or Manager
   - Detailed, site-specific requirements and information of departmental hazardous chemical use, protection, and exposure potential
   - Explanation of Personal Protective practices
   - Explanation of Emergency Procedures
   - Approval of training by the Department of Risk Management and Safety

**THIS TRAINING IS GENERAL HAZARD COMMUNICATION TRAINING**

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When is Training Required?

**Training Requirements:**

- Employees are to complete site specific training before they work in an area containing a hazardous chemical and whenever new hazards are introduced into the workplace or new information is received on the chemicals which are already present.

- This training is considered general training, and it is required to be repeated annually.

- Contact Training & Development (903-468-3021) for training dates, schedules, and other training information.

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Your Rights and Responsibilities

You have the Right to know:

- The identity of the chemicals that you are using
- The hazards of the chemicals you are using
- How to protect yourself from the hazards of the chemicals you are using
- How and where to access Material Safety Data Sheets

You have the Responsibility to:

- To complete training and learn how to use the information available
- To ask your supervisors for an explanation of anything you do not understand
- To follow your employer’s health and safety procedures to protect yourself

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Material Safety Data Sheets describe the properties and hazards of a specific chemical

Commonly referred to as MSDS

- Material Safety Data Sheets are required to contain certain information, but are not required to follow a given format
- Material Safety Data Sheets are prepared by the manufacturer or importer
- Every chemical in the workplace must have a Material Safety Data Sheet
- Material Safety Data Sheets must be made available to you in the workplace
- If a Material Safety Data Sheet cannot be made available, do not work with the chemical and contact the Department of Risk Management and Safety (903-486-8781)
What information can be found on MSDSs?

Material Safety Data Sheet Info:
- Product Information
- Ingredients, Composition
- Hazards Identification
- First Aid Measures
- Fire Fighting Measures
- Accidental Release Measures
- Handling and Storage
- Exposure Controls, Personal Protection
- Physical and Chemical Properties
- Stability and Reactivity
- Toxicological Information
- Ecological Information
- Disposal Considerations
- Transportation Information
- Regulatory Information
- Other Information

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Where are the Material Safety Data Sheets?

- Each Department that uses hazardous chemicals must have copies of MSDSs.
- Copies of the MSDSs must be located in an accessible area and maintained by the department.
- MSDS copies can be made available from:
  - Your Supervisor, Director, or Manager
  - The Safety Manager
  - The Chemical Manufacturer
What Does a MSDS Look Like?

Click here to view MSDS

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Container Labels

- Labels are the first line of warning and information for the employee.

- **DO NOT USE OR HANDLE ANY CONTAINER THAT DOES NOT HAVE APPROPRIATE LABELING**

- Check labels prior to use for:
  - Identity of chemical
  - Name and address of manufacturer
  - Appropriate hazard warnings

- Regard unlabeled containers as dangerous or potentially hazardous

- Do not deface, remove, or cover up labels

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What are Labeling Requirements?

- Manufacturers and importers are required to label each container
- Labels shall be
  - legible
  - in English
  - prominently displayed on containers with hazardous contents
- Employers are required to:
  - replace damaged labeling immediately
  - provide a system for labeling containers in the workplace
  - **not** deface, remove, or cover up labels
- The original label from the supplier or manufacturer must remain attached to the container. The label provides the:
  - Name of the chemical as it appears on MSDS
  - Manufacturer’s name and address
  - Physical and health hazard warnings
- Be sure to:
  - Read labels before beginning work
  - Do not deface or remove the label
  - Re-Attach or Replace labels if necessary
- **You should never have any unattended, unlabeled containers in your workplace!**
Container Labels

NO!

Not In English

YES!

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## Are There Different Types of Containers and Labels?

<table>
<thead>
<tr>
<th>Types of Containers</th>
<th>Types of Labels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRIMARY CONTAINER</strong></td>
<td><strong>PRIMARY LABEL</strong></td>
</tr>
<tr>
<td>- The original container or bottle holding the chemical</td>
<td></td>
</tr>
<tr>
<td><strong>SECONDARY CONTAINER</strong></td>
<td><strong>SECONDARY LABEL</strong></td>
</tr>
<tr>
<td>- Any container or bottle used to transfer chemical product into from the primary container</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Is any label used that is not the original chemical manufacturer’s label</td>
</tr>
<tr>
<td></td>
<td>- Is completed and attached by the employee</td>
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<tr>
<td></td>
<td>- Site specific training will identify containers considered secondary, or portable</td>
</tr>
<tr>
<td></td>
<td>- Available from</td>
</tr>
<tr>
<td></td>
<td>- Your Supervisor, Director, or Manager</td>
</tr>
<tr>
<td></td>
<td>- Department of Risk Management and Safety</td>
</tr>
<tr>
<td><strong>ALL PORTABLE CONTAINERS MUST BE PROPERLY LABELED!</strong></td>
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</tbody>
</table>

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ALL PORTABLE CONTAINERS MUST HAVE A SECONDARY LABEL WITH THE FOLLOWING INFORMATION

1. Product Name
2. Chemical Ingredients or CAS No. from MSDS
3. Manufacturer
4. Health Hazards
   • NFPA or HMIS rating
   • Exposure warning

THE ONLY EXCEPTION IS FOR LABORATORY CHEMICALS THAT REMAIN IN THE LABORATORY AT ALL TIMES. THE REQUIREMENT IS FOR THE CHEMICAL TO BE IDENTIFIED BY MSDS NAME
The NFPA Marking System:

- Is a color coded, numerical rating system
- May be used as part of a container’s label
- Will be located near main entrances, fire alarm panels or on outside entrance doors
- Provides at-a-glance hazard information

Blue = Health
Red = Flammability
Yellow = Instability
White = Special hazard information

4 = Deadly Hazard
3 = Severe Hazard
2 = Moderate Hazard
1 = Slight Hazard
0 = No Hazard

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HMIS (Hazardous Materials Identification System) Marking System

The HMIS Marking System:
- Is designed to go on individual product containers
- Is the same color code and numerical rating system as the NFPA diamonds

| Chemical Name | CAS#
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>□</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>□</td>
</tr>
<tr>
<td>INSTABILITY</td>
<td>□</td>
</tr>
<tr>
<td>SPECIFIC</td>
<td>□</td>
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**Color Codes and Ratings:**
- **Blue** = Health
- **Red** = Flammability
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- **White** = Special hazard information

- **4** = Deadly Hazard
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What Are The Chemical Hazards In The Workplace...

There are two types of chemical hazards in the workplace:

1. **Health Hazards**
   - Are those chemicals that may cause either acute or chronic health effects in employees

2. **Physical Hazards**
   - Are those materials that are combustible liquids, compressed gases, explosives, flammables, organic peroxides, oxidizers, pyrophorics, unstable/reactive, or water-reactive.

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Physical and Health Hazards In The Workplace...

Examples of Physical and health hazards in the workplace:

- **Liquids**
  - Cleaning solvents, acetone, gasoline, motor oil

- **Gas**
  - Hydrogen, propane

- **Solid**
  - Metal powders, matches

- **Aerosol**
  - Spray paint

- **Gases**
  - Oxygen, nitrous oxide, chlorine

- **Organic peroxides**
  - Benzoyl peroxide

- **Other oxidizers**
  - Concentrated nitric acid, sodium hypochlorite (bleach)

- **Compressed gases**
  - Acetylene, oxygen, compressed air, chlorine

- **Acids**
  - Sulfuric acid (battery acid), hydrochloric acid

- **Bases**
  - Sodium hydroxide (Drano™), ammonium hydroxide

- **Toxins**
  - Carbon tetrachloride, ethanol, halogenated hydrocarbons, mercury, carbon disulfide, formamide, lead, latex, epoxy resins, sodium bromide, calcium chloride

- **Reactive**
  - Pyrophorics (capable of spontaneous combustion in air), water reagents, shock sensitive, peroxide formers, explosive
Physical and Health Hazards In The Workplace…

Chemicals May Enter the Body Through

- **Inhalation:**
  Breathed in through mouth or nose

- **Absorption:**
  Touches skin, eyes, mucous membranes

- **Ingestion:**
  Swallowed

- **Injection:**
  Forced into skin through cuts, abrasions, compressed air, etc.

**Acute Hazards**
- Exposure over a short period of time (seconds – minutes) that cause harm.
  Examples:
  - Explosion causing hearing loss
  - Cyanide poisoning
  - Caustic burn on skin
  - Symptoms appear shortly after exposure

**Chronic Hazards**
- Exposure over a long period of time (months-years) that cause harm.
  Examples:
  - Skin cancer from sunlight
  - Liver failure from chlorinated hydrocarbons
  - Nerve damage from hexane solvent in glues
  - Mercury poisoning from contaminated fish

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Hazardous Materials Release and Exposures

To Detect a Hazardous Material Release, be aware of:

- Visible liquids or powders on surfaces
- Visible mist or fog in air
- Bad smell
- Fire
- Discolored surface or surrounding area
- Hissing noise of escaping gas

To Detect a Hazardous Material Exposure, be aware of:

- Visible liquids or powders on surfaces
- “Tingly” or burning sensation on skin
- Headache that only occurs at certain times
- “Flu” symptoms that go away over the weekend and come back on Tuesday.
- Loss of sensation in fingers or toes and/or loss of control of fingers or toes.
- Smell a “bad” smell
- Moods swings
- Feeling depressed all the time
- Change (usually decrease) in libido
- Unusual dryness of skin

Site Specific Training Will Explain Further Detection and Exposure Possibilities

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How to Protect Yourself:

- Use hazardous materials only as directed
- When using hazardous materials:
  - Don't smoke, eat, drink or apply cosmetics
  - Never smell, inhale or taste them
  - Keep them off of hands, face, clothing and shoes
  - Ensure adequate ventilation
  - Protect cuts, abrasions, sores, and open wounds from chemical contact
- Wash hands and face thoroughly with soap & water after use
- Don't wear chemically soiled clothes home or out of the work area
- Know where to locate the written Hazardous Communication Plan
- Check the MSDS if you are unsure of the use of the product
- Refer to the MSDS for specific safe handling and protective measures:
  - Personal Protective Equipment
  - Spill Response
  - Potential Emergency Response
- Keep containers closed when not in use
- Always ensure contents are identified
- Ensure proper storage is taking place:
  - Store according to hazard class
  - No breakable containers on the floor
  - Minimize chemicals stored in the area
  - Use lab safe refrigerators
  - Only store in approved cabinets and shelves

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What Else Can I Do to Protect Myself?

- Use **Personal Protective Equipment (PPE)**

- **PPE** requirements for each chemical can be found on labels or the MSDS and include:
  - Goggles, face shields, safety glasses
  - Gloves
  - Respirators & dust masks
  - Head protection
  - Foot protection
  - Aprons or full body suits

- Always check the MSDS for PPE information and requirements.

- Contact the Department of Risk Management and Safety for proper PPE information

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What If There Is A Spill

- If a spill is an immediate threat to life or health:
  - Evacuate the area and notify persons nearby
  - Call 911 from a campus phone or 903-886-5111 from a cell phone for assistance and notify Safety at 903-468-8781
  - Provide specific and detailed information to responders
  - Stay away until the all clear is given by UPD or Safety

- If a spill is minor:
  - If trained, use a spill kit to clean it up
  - Remove ignition source
  - If not trained, call Safety at x-8781 and prevent others from entering areas

- For Spill Kit Information, contact the Safety Office
What If I am Exposed to a Hazardous Chemical?

If you are exposed to a hazardous chemical...

- **Ocular Entry**: Through the eyes
  - Flush with water for 15 minutes

- **Ingestion**: Swallowed
  - Seek immediate medical help

- **Absorption**: Touches skin or is injected
  - Wash with soap & water

- **Inhalation**: Breathed in through mouth or nose
  - Move to fresh air

**ALWAYS CONTACT EMERGENCY SERVICES AS SOON AS POSSIBLE**

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Are There Other First Aid or Prevention Methods?

- Read MSDS for specific instructions
- Know immediate first-aid response if contact with a hazardous material occurs
- Make sure area is safe before entering
- Call 911 from a campus phone and 903-886-5111 from a cell phone for First Responders (UPD)
- Remove victim from the area (if the area continues to be unsafe)
- Use eyewash and safety shower if exposed
- Do not induce vomiting or drink anything unless directed to do so by medical personnel (e.g., Poison Control Center)
- Provide MSDS to the emergency room doctor
- Properly dispose of contaminated clothing

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Employers must develop a workplace chemical list consisting of hazardous chemicals used or stored in the workplace in excess of 55 gallons or 500 pounds. This list shall be updated by the employer as necessary, but at least annually, and be made readily available for employees on request.

Contact the Department of Risk Management and Safety for information on the Texas A&M University - Commerce Workplace Chemical List.
Disposal and Pick-Up Procedures

- Be sure each waste container is appropriate for the chemical waste contained
- Contact the Safety Manager for the appropriate waste tag
- Keep waste container closed
- Attach Waste Tag to container and fill out the information
- **Detach bottom section and send tag to the Safety Manager when full**
- Each container must be clean/decontaminated on the outside
- Each container must have a TAMU-C Hazardous Waste Tag attached to it
- **Both parts of the tag must be completely filled out.**

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### **Hazardous Waste Tag**

<table>
<thead>
<tr>
<th>MGR/SUPERVISOR:</th>
<th>DEPT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUILDING NAME:</td>
<td>ROOM NO:</td>
</tr>
<tr>
<td>CONTAINER START DATE:</td>
<td></td>
</tr>
</tbody>
</table>

**CONTENTS**

Separately list % of each component (including water / solvent) in a solution or mixture (total must equal 100%). Less than 0.5% label as "trace" amount.

<table>
<thead>
<tr>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
</table>

**PHYSICAL PROPERTY:**

- Liquid
- Solid
- Gas
- Other

**CONTAINER SIZE:**

<table>
<thead>
<tr>
<th>Amt.</th>
<th>Units</th>
</tr>
</thead>
</table>

**CONTAINER TYPE:**

- Glass
- Metal
- Plastic
- Other

**REACTS WITH:**

- None
- Air
- Water
- Other

**HAZARDS:**

- Ignitable
- Corrosive
- Reactive *(SEE REVERSE SIDE)*
- Toxic
- Explosive
- Other

**TEXAS WASTE CODE (IF KNOWN FROM NOTICE OF REGISTRATION):**

- 4-digit sequence number
- 3-digit form code
- 1-digit classification code

*If hazardous waste classification is unknown, call Risk Mgmt & Safety @ 468-8781 for assistance*

Mail lower portion of tag to: Dept. of Risk Mgmt. & Safety
A&M-Commerce, Social Science Building, Rm. 137 Ph: 468-8781

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Summary

- Federal and State regulations set the minimum standard for Hazardous Chemicals in the workplace
- Each Employee must complete both General and Site Specific Training
- You have the RIGHT TO KNOW the hazards of the chemicals you work with and are around
- Know where to locate your department’s MSDS and know how to use them
- ALL CONTAINERS MUST BE LABELED
- Chemicals are everywhere, know the hazards associated with them
- Practice safe handling and use precautions to minimize the risk associated with hazardous chemicals
- Label all waste containers with the Texas A&M University-Commerce waste tag
- Contact the UPD at 911 or 903-886-5111 for immediate danger and emergencies
- Contact Safety (903-468-8781) for questions, concerns, or spill clean up

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Which of the following DO NOT set standards for Hazardous Communications in the workplace?

- Chapter 502 of the Texas Health and Safety Code
- Texas Health Law
- Texas A&M University-Commerce Hazardous Communication Plan
- OSHA 29 CFR 1910.1200