PMA COMPANIES

# Auto Dealership & Service Center Hazard Communication Training

OLD REPUBLIC INSURANCE GROUP

Subpart Z – 1910.1200

# Disclaimer

IMPORTANT NOTICE: This risk control training program provided by PMA Companies is intended to help support your loss prevention efforts. It is not intended to be complete or definitive in discovering or identifying all hazards associated with your business, preventing workplace accidents, or complying with any safety related or other laws or regulations. You are encouraged to address the specific hazards of your business and have your legal counsel review all of your plans and company policies.

# Our Session Objectives

***Engine fluids, cleaning products, paint/paint thinner, and other products that you use every day, may contain chemicals that could hurt you.***

To understand why Hazard Communication training is essential in creating a safe work environment.

By the end of this training program, you will:

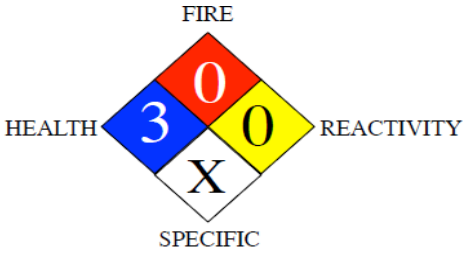
- Know how to recognize and manage the hazardous materials in your work area and understand the hazards associated with your work

- Understand the Globally Harmonized System (GHS) - A uniform guideline for the classification and presentation of chemical hazards

# Course Outline

1. Criteria for a Hazard Communication Program
2. The Globally Harmonized System (GHS)
3. The Written Program
4. Hazardous Materials Inventory
5. Employee Training
6. Hazardous Materials and Your Body
7. Understanding Exposure Limits
8. Hazard Classification
9. Exposure Controls
10. Pictograms
11. Container Labeling
12. Other Labeling Requirements
13. Safety Data Sheets
14. Summary

HAZARD WARNING
4 - Extreme
3 - High
2 - Moderate
1 - Slight
0 - Insignificant
X- See Section IV & V of SDS Sheet



# Criteria for A Hazard Communication Program

**Requirements for A Hazard Communication Program:**

1. Each employer must have a written hazard communication program at each location. The written program is information needed to prevent accidents related to hazardous materials.

2. All employees must receive hazard training in the proper handling of hazardous materials to prevent exposure.

3. An inventory of all hazardous substances in the workplace must be maintained.

4. All containers of hazardous products must be properly labeled.

5. Manufacturers and suppliers must provide written information on the hazards of the materials they produce or supply using the Safety Data Sheets (SDSs).

# Globally Harmonized System (GHS)

**What is the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)?**

- Developed with an international panel of scientific experts and industry stakeholders and managed by the United Nations
- GHS is a system to synchronize the definitions of chemical hazards
- It is a defined system that classifies chemicals by their hazard and includes ensuring proper labeling and appropriate Safety Data Sheets (SDSs)
- GHS addresses the issues of chemical management and use in a global economy with a diverse set of regulations between countries, regions and business sectors

# Written Program Must Include

1. The names of those responsible for administering each part of the program
2. An inventory of all the hazardous materials onsite, including SDSs
3. Employee training procedures, including the personal protective equipment (PPE) specified on the SDSs
4. Information about container labeling procedures
5. General instructions for safe handling of the chemical, proper disposal and emergency procedures
6. Training on unusual tasks, such as cleaning machinery, that may result in additional hazards
7. Rules that private contractors must follow when onsite

A copy must be in writing and located at each facility so the information is easily accessible to every employee.

# Hazardous Materials Inventory


- Safety information about all hazardous substances in the workplace
- Chemical identification:
  - The chemical's full name from container labels
  - The chemical's commonly used name
  - The product identifier: A unique name or number which can be cross-referenced to the correct SDS
- Information about where each hazardous material is used
- The Safety Data Sheet (SDS) for each substance used

# Employee Training

- Training enables employees to perform their job according to the:
  - Health
  - Safety
  - First aid
  - Emergency procedures necessary
- Employees must be fully trained on the specific hazards in their work area
- Every employee must receive specific training **before** working with any hazardous chemical
  - At the time of the initial assignment
  - When a new chemical hazard is introduced to the workplace

# Employee Training

- All hazards associated with each chemical in the workplace
- How to detect the release or presence of a hazardous chemical
- Chemical handling procedures that eliminate the risk of harmful exposure
- The proper use of controls including engineering controls, signs, emergency procedures and personal protective equipment (PPE) while working with hazardous materials
- Proper chemical labeling practices

# Hazardous Materials and Your Body

- Hazardous materials can create serious health risks, depending on the substances used and the duration of exposure

- Symptoms vary from short term effects such as coughing, headaches, or skin irritation to long term effects like organ damage or cancer

- The strength of the substance and the quantity that enters the body determine the effect

- The *route of entry* is how a substance gets into your body:
  - Ingestion: Through the digestive tract by swallowing
  - Absorption: Through the eyes, skin, or mucous membranes
  - Inhalation: Through the respiratory tract by breathing
  - Injection: Piercing the skin, involving cuts or needles

# Understanding Exposure Limits

In addition to recognizing how a substance enters your body, it is important to know about a specific material's toxicity. Exposure limits are determined by:

- **Duration:** How long you are near the material
- **Concentration:** How much of the material is present

**Exposure = Duration x Concentration**

**PEL = Permissible Exposure Limit**

- Failing to observe PEL guidelines can lead to sickness, injury or death

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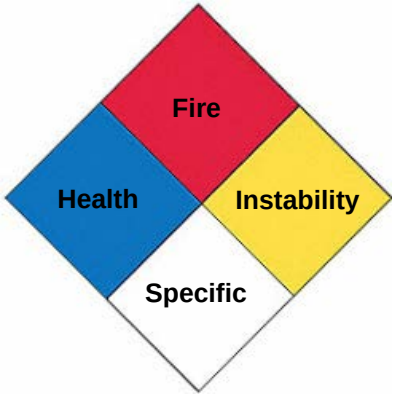
# Hazard Classification




**Determining hazard classification:**

- Chemical manufacturers and importers must classify chemicals in accordance with the GHS classification section

- In order to be uniform worldwide, the new classification system includes the following:
  - Specified criteria for each health and physical hazard
  - Detailed instructions for how to evaluate a hazard

- Manufacturers, importers and distributors will have to determine if mixtures are considered hazardous and, if they are, to classify them

# Exposure Controls

Engineering controls reduce exposure through employee contact

Engineering controls may include:

- Ventilation, such as a down draft paint booth
- Local exhaust ventilation such as vehicle exhaust ventilation system that removes carbon monoxide through hoses
- Glove boxes like those used for sand blasting or hazardous chemicals
- Changes to the handling processes that reduce employee contact with the hazardous chemical
- Vacuum systems that remove vapors when welding or cutting metal

# Exposure Controls

Your behavior can reduce exposure to hazardous chemicals by:

- Obeying all posted signs and placards
- Not eating, drinking or applying cosmetics, including lip balm, while working with a hazardous chemical
- Washing hands after removing PPE, at the end of the work day and prior to eating or drinking
- Reporting any spills or leaking containers to your supervisor

# Exposure Controls

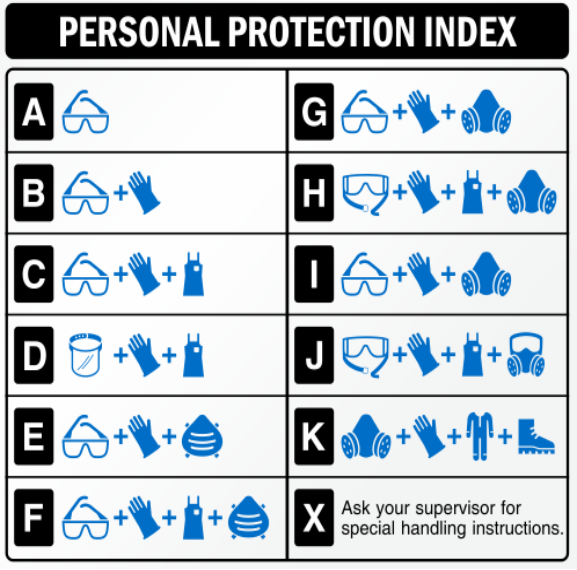
## *Personal Protective Equipment (PPE):*

You may need to wear PPE when working with hazardous materials

A hazard assessment must be completed to determine the appropriate PPE to be worn when working with a chemical hazard

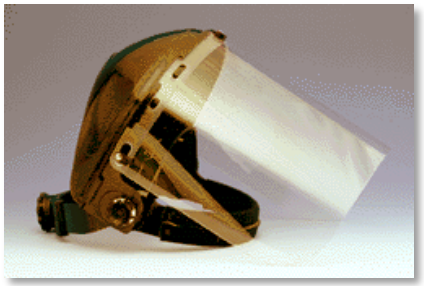
PPE must be:

- Specifically approved for the work
- Written in the PPE Hazard Assessment
- Inspected and maintained daily



# Exposure Controls

## *Personal Protective Equipment Types:*



**Face and eye protection:**

- Safety glasses, goggles or a face shield must be worn if there is the possibility that hazardous materials will contact your eyes or face
- Goggles shield the eyes against liquid or chemical splashes, irritating mists, vapors, fumes and particulates
- Face shields protect the entire face against exposure to hazardous materials and should be used in conjunction with safety glasses or goggles

# Exposure Controls

## *Personal Protective Equipment Types Continued:*

**Skin protection:**

- Skin protection depends on the hazard. Protection may be required for the whole body or only for the hands
    - Consider how your footwear protects your feet from chemicals. Waterproof? Chemical resistant? Anti-Slip? What's their condition?

- Gloves must be designed for the specific hazardous material
    - Consider the conditions present, duration of use and potential hazards
    - If the wrong material is selected, the glove will not provide the proper protection
    - Chemicals may pass through some glove materials or break down the materials, leaving the wearer unprotected

# Exposure Controls

## *Personal Protective Equipment Types Continued:*

**Respiratory protection:**

- If fumes, vapors or particulates are present in the air, some form of respiratory protection may be required
- This can range from a simple dust mask to a full-face respirator
- You must have a medical evaluation, respirator specific training and a fit test prior to working with a respirator

# Pictograms and Hazards

## *Global Harmonized Standards*

- GHS developed a series of nine pictograms for use in labeling
- It is expected that **all** existing hazard communication programs will need to be changed in to comply with GHS in this area
- The pictograms convey any health, physical and environmental hazards that are assigned to a GHS category

# Pictograms and Hazards

The flame symbol may mean:

- Flammables
- Pyrophorics
- Chemicals that emit **flammable gas or vapors**
- Organic peroxides
- Could burn on it's own or react with other substances to cause a fire
- Can be Solids, Liquids, and Gasses

Some examples of this are Toluene a common component of **Break Cleaner**.

Another is Methanol, commonly found in the **Windshield Washer Fluid** that is used in many service departments.

Some **Tire Shines** contain Acetone and Petroleum Hydrocarbon, which is highly flammable.

# Pictograms and Hazards

The exclamation mark may mean:

- Could irritate skin, eyes, and respiratory system
- Can induce an allergic response following skin contact
- Acute toxicity - results either from a single exposure or from multiple exposures in a short period of time
- Narcotic effects – May make you lightheaded
- Chemicals hazardous to the ozone layer (This is a non-mandatory category)

An example would be Acetone, a solvent used in various applications including many **Break Cleaners**, is an eye, nose and throat irritant.

Other hazardous products that may use this pictogram are **Car Wash Soaps, Glass Cleaners, and Engine Extenders.**

# Pictograms and Hazards

The health hazard symbol may mean:

- Could cause cancer
- Can impact breathing and may cause asthma
- May cause reproductive problems and birth defects
- May be toxic to organs and damage lungs
- Mutagenicity
- Aspiration toxicity

Some examples of these used in automotive service departments are **antifreeze, brake fluids, gasoline, and oils**.

Other hazards include inhalation of **diesel exhaust fumes** or contact with certain heavy metals and their compounds, asbestos, benzene etc.

# Pictograms and Hazards

The corrosive symbol may mean:

- Skin corrosion or burns
- Eye damage
- Corrosion to metals

An example of a corrosive chemical is Hydrofluoric Acid, a common ingredient in **Wheel Cleaners**. It can cause severe burns, penetrating the skin and attack proteins. Inhaling even small amounts can cause throat burns, lung inflammation and pulmonary edema.

Another is sodium hypochlorite, a common **household bleach**; it is corrosive to stainless steel.

# Pictograms and Hazards

The gas cylinder symbol means:

- May be flammable, oxidizing or reactive compressed gasses
- Accidental release causes cylinder to rocket or pinwheel
- Liquid contents may cause skin to freeze

Two examples of chemicals stored this way are **Oxygen and Acetylene**. They commonly used in cutting torches and must be stored at least 20 feet away from each other when not in use.

# Pictograms and Hazards

The skull and crossbones symbol means:

- Severe Hazard
- Acute toxicity (fatal or toxic)

An example of a chemical with acute toxicity is Methanol, which is found in many **Lacquer Thinners**. Some **Floor Cleaners and Fabric Protectors** can also have this symbol.

The exploding bomb symbol may mean:

- Explosive – often flammable
- Self-Reactive or self-heating
- Pyrophoric – burns if it contacts air
- Organic peroxides – burns or explodes

Ammonium nitrate, used in **some air bags**, is an example of a chemical with an explosive hazard.

# Pictograms and Hazards

The flame over circle symbol means:

- Oxidizers – can cause organic materials to combust

**Oxygen** is one oxidizer that is commonly found in dealership service departments.

The environment symbol means:

- Aquatic toxicity – Can Harm plants or animals

Polybrominated diphenyl ether (PBDE), a liquid flame retardant, is an example of an aquatic toxicant. It is known to accumulate in fish fat and cause development issues in marine life.

# Container Labeling

***Knowing what you are working with, keeps you safe.***

Labels MUST contain:

- Product identifiers: The name or number, used for a hazardous chemical that can be cross-referenced between the label, SDS and written Hazard Communication Program
- Supplier identification: The name, address and telephone number of the responsible party
- Signal words: Used to indicate the severity of the hazard, the signal words are “danger” or “warning.” Danger is for more severe hazards
- Pictograms: These are symbols that indicate the hazard of the material

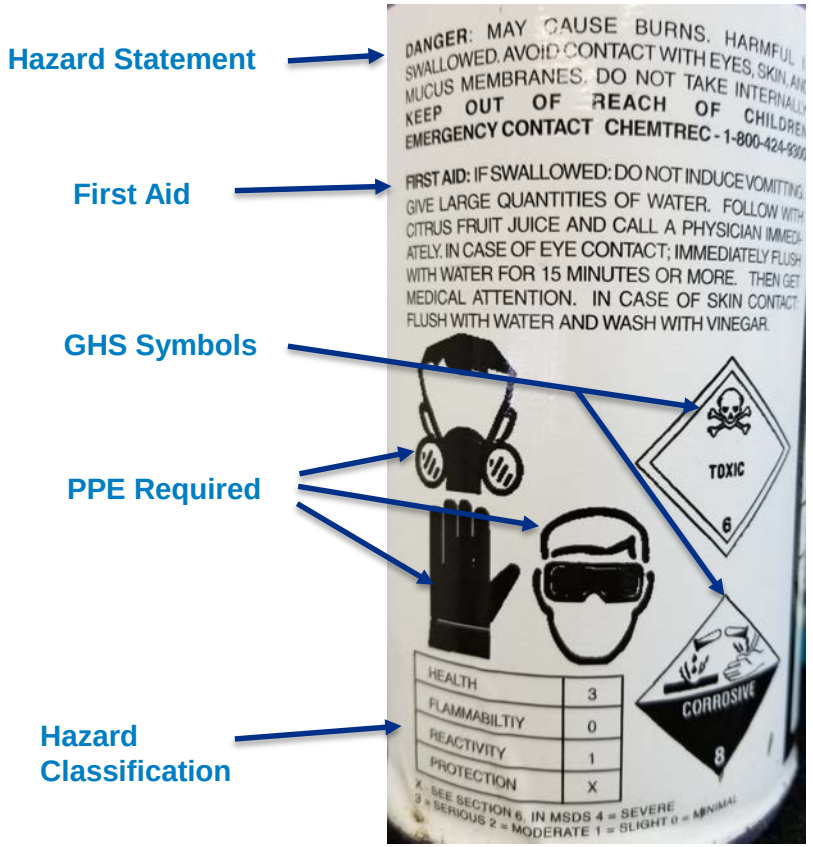
# Container Labeling

Hazard statements: Assigned statements that describe the hazard's nature and its degree of severity. For example:

- "Fatal if swallowed"
- "Harmful if inhaled"
- "Toxic in contact with skin"
- "May cause burns"

Precautionary statements: Phrases describing recommended methods to avoid adverse effects. The four types are:

- Prevention
- Response
- Storage
- Disposal



# Container Labeling


1. Labels must not be removed, defaced or altered in any way

2. All labels must be legible, in English and prominently displayed

   - Information in other languages may be added, as long as English is displayed

3. The information must be provided in a consistent manner

4. Chemicals not classified as hazardous do not have to be noted on the container

5. For solid materials, the label may be given along with the SDS during the initial shipment

# Secondary Container Labeling


- The containers that hazardous materials are transferred into, from their original containers, must also be labeled with the contents and hazards
- Alternative labels are acceptable as long as they include the product identifier and words, pictures or symbols that indicate general information about the product and the hazards involved
- Labels for the National Fire Protection Association (NFPA) and Hazardous Materials Identification System (HMIS) are permitted, especially during the transition period
- Supplementary hazard information may be included on labels as long as it provides further detail and does not conflict with the existing GHS-compliant label

# Safety Data Sheets

A Safety Data Sheet (SDS) lists the characteristics of a particular substance:

- Understanding the hazards of the materials you are working with can help you protect yourself against them
- A SDS must be on file and readily available for each substance listed in the hazardous materials inventory section of the Hazard Communication Program


***Know where to find your safety data sheets!***

# Safety Data Sheets

## *Understanding Safety Data Sheets*

1. **Identification -** product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

2. **Hazard(s) identification -** includes all hazards regarding the chemical; required label elements.

3. **Composition/information on ingredients** - includes information on chemical ingredients; trade secret claims.

4. **First-aid measures** - includes important symptoms/ effects, acute, delayed; required treatment.

# Safety Data Sheets

## *Understanding Safety Data Sheets, cont.*

5. **Fire-fighting measures** - lists suitable extinguishing techniques, equipment; chemical hazards from fire.

6. **Accidental release measures** - lists emergency procedures; protective equipment; proper methods of containment and cleanup.

7. **Handling and storage** - lists precautions for safe handling and storage, including incompatibilities.

8. **Section 8, Exposure controls/personal protection -** lists exposure limits and appropriate engineering controls; personal protective equipment (PPE).

# Safety Data Sheets

## *Understanding Safety Data Sheets, continued*

9. **Physical and chemical properties** - lists the chemical's characteristics.

10. **Stability and reactivity** - lists chemical stability and possibility of hazardous reactions.

11. **Toxicological information** - includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

12. Ecological information*
13. Disposal considerations*
14. Transport information*
15. Regulatory information*
16. **Other information,** includes the date of preparation or last revision.

# Summary

***A good Hazard Communication Program will keep you prepared and safe!***

- Comprehensive hazard communication training is essential to a safe and healthful work environment.
- To ensure your safety, as well as the safety of your co-workers, you must fully understand the types of hazardous materials used at your workplace.
- You must also know what to do in case something unexpected happens during chemical use.
- GHS requires that chemical hazards are communicated in an organized way on labels and Safety Data Sheets (SDSs).
- Labels must have a product identifier that cross references with the SDS, a pictogram and a hazard statement to indicate the severity.

**If you have any questions, ask your supervisor.**

# Hazard Communication Program

For more information please visit the web site below.

http://websource.pmagroup.com/

# What do we use in OUR Facility?

**Instructions:**
**Thinking of chemical products you have used in your workplace, list these products using their commonly used names.**
**After listing some products, check the boxes if you know the product's Health Effects, Personal Protective Equipment, and Emergency Procedures.**

| Hazardous Substances in Our Shop | Health Effects | Personal Protective Equipment | Emergency Procedures |
|---|---|---|---|
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
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| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |

Where could somebody find this information?—The SDS

# What are their routes of entry?

**Instructions:**
**Thinking of the different jobs that are done in your dealership. List them and check what route of entry would apply.**
**Some examples are: Grinding=inhalation**
**Paint mixing= ??? , Sanding= ???**
(More than one route of entry is possible.)

| Routes of Entry by Job | Inhalation | Absorption | Ingestion/Injection |
|---|---|---|---|
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |
| _____ | ☐ | ☐ | ☐ |

Where could somebody find this information?—The SDS

# Learning Exercise 1

_____ _____

Employee Name Date of Training

**Hazard Communication** _____

Training Subject Instructor

| | | |
|---|---|---|
| T | F | 1. The quickest way to answer the question “what am I working with?” is to read the label. |
| T | F | 2. Chemical product labels will never include a pictogram. |
| T | F | 3. There are two signal words that may appear on chemical product labels: Danger and Warning. |
| T | F | 4. There can be icons or other symbols on the label to tell you what kind of personal protective equipment you should use. |
| T | F | 5. Corrosives are substances that catch fire or burn easily. |
| T | F | 6. A precautionary statement on a chemical product label is where you will find the signal word. |
| T | F | 7. Safety Data Sheets contain more detailed information about a chemical than what is written on the product label. |
| T | F | 8. A good way to understand common ways to protect yourself is to organize the materials you work with into chemical hazard categories like flammables, corrosives, toxics, reactives or gasses under pressure. |
| T | F | 9. Your best protection when working with toxic chemicals is to avoid getting the material in you or on you. |
| T | F | 10. Washing your hands often during the day is a good way to keep toxic chemicals from getting in or on your body. |

# Learning Exercise 2

_____ _____

Employee Name Date of Training

**Hazard Communication** _____

Training Subject Instructor

**Answer each of the following questions by reviewing the Safety Data Sheet (SDS) provided by the instructor and then filling in the blank.**

1. What is the chemical name of this material? _____
2. Who manufactures this product? _____
3. What is the signal word for this product? _____
4. What first aid should you give to someone who has been exposed to this material?

_____

5. What are the special handling and storage procedures and precautions for this material?

_____

6. Should you wear any personal protective equipment (PPE) when using this product? If so, what PPE should you use?

_____

7. What fire-fighting measures should you use for this product? _____
8. What should you do if this material is spilled or released into the air? _____
9. Can this product become unstable or cause any reactions? If so, what can happen?

_____

10. How should you safely dispose of any of this product? _____

# Answers to Learning Exercise 1

1. **True.**

2. **False.** Any chemical product that has either physical or health hazards will have a pictogram indicating the type of hazard.

3. **True.**

4. **True.**

5. **False.** Corrosives damage skin, eyes and mucous membranes of the body or can corrode tools or equipment. There may be cases that a corrosive material is also flammable or can burn, but these are not common.

6. **False.** Precautionary statements are phrases that describe recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical or improper storage or handling.

7. **True.**

8. **True.**

9. **True.**

10. **True.**

## *Safety Training Log -* _____

Dealership Name

**Hazard Communication** _____

Training Subject Date of Training

_____

Instructor

| Attendees | Department | Employee Signature |
|---|---|---|
| 1. | | |
| 2. | | |
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