WHMIS is short for "Workplace Hazardous Materials Information System."

WHMIS consists of four key elements.
1 to 3 are the responsibility of the supplier

1. Hazardous materials in the workplace must be identified and classified.
2. Hazardous materials in the workplace must be properly labeled.
3. Standardized Safety Data Sheets (SDS) must provide all required safety information.
4. All workers handling or who may be exposed to hazardous materials must complete WHMIS training.

Questions:
Q1: Which of the following is a benefit of the Globally Harmonized System of classification and labeling of chemicals?

- Improved, consistent hazard information
- Better emergency response
- Enhanced safety when handling and using hazardous products
- Consistent and familiar labels, pictograms and Safety Data Sheets from country to country

Q2: Which of the following is a key element of WHMIS?

- Hazard Identification & Product Classification
- Labeling
- Safety Data Sheets (SDS)
- Worker Education and Training

3 types of labels
Supplier

1. Product Identifier. The name of the product.
2. Pictogram(s) Hazard Symbol. A pictogram of the hazard(s) within a red square set on one of its points.
3. Signal Word. A word used to alert the reader to a potential hazard and to indicate the severity of the hazard.
4. Hazard Statement(s). Standardized phrases that describe the nature of the hazard posed by a hazardous product.
5. Precautionary Statement(s). Standardized phrases that describe measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous product or resulting from improper handling or storage of a hazardous product.
6. Supplemental Label Information. Information required based on the classification of the product.
7. Initial Supplier Identifier. The name, address and telephone number of either the Canadian manufacturer or the Canadian importer.

Workplace
A workplace label is a shorter version of the supplier label and can be used on the containers of hazardous products when:

1. It is replacing a torn, illegible or missing supplier label.
2. The hazardous product is removed from the supplier’s container into another workplace container.
3. It is placed on the exterior of mixing tanks or storage tanks in the department.

1. **Product Identifier**. Product name exactly as it appears on the container and on the SDS.
2. **Precautionary Statements**. Standardized phrases that describe measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous product or resulting from improper handling or storage of a hazardous product.
3. **Reference to SDS**. This identifies the Safety Data Sheet where more information is provided.

Optional workplace label information

1. Hazard Pictograms, which are determined by the hazard classification of the product.
2. Hazard statements, based on the product's hazard classification, may also be included.

Questions?

Q1: Which of the following must be included on a supplier's hazardous product's label?

1. Product identifier
2. Signal word
3. Pictogram Hazard Symbol
4. Precautionary Statement

Q2: When is it appropriate to use workplace labels on a hazardous product?

1. When replacing a torn, illegible or missing supplier label.
2. When a hazardous product is removed from the supplier's container into another workplace container.
3. When it is placed on the exterior of mixing tanks or storage tanks in the department.
4. All the above

WHMIS Classes & Hazard Symbols

A chemical is classified as a "Hazardous Product" if it is a health hazard or a physical hazard.

A health hazard can range from mild skin irritation or rash to severe chemical burns or serious illnesses.

Physical hazards include fires, explosions or chemical reactions. For example, gasoline can catch fire easily and aerosol cans will explode when heated.

Hazard classes are a way of grouping together products that have similar properties and have pictograms or symbols to make them easily recognizable.

WHMIS Classes and Categories

- Each hazard class also contains at least one category.
- Categories, or types, are assigned a number based on the severity of the hazard.
- The lower the number, the greater the degree of severity.

In the event of an emergency, you need to take two actions immediately.

1. Get help.
2. Report all hazardous product emergencies to your Manager/Supervisor or Facility Manager/Designate.

Safe Use, Storage, Handling and Disposal

Safe Use

Be aware of the use of hazardous materials in your facility.
Check product label before using.
Follow warnings and instructions on supplier labels, and/or SDSs.
Use the protective equipment and clothing recommended for each product.

Safe Storage

The recommended procedures for the safe storage of hazardous materials in the workplace can be found in Section 7 (Handling and Storage) of the Safety Data Sheet.
Safe Handling

- Never mix chemicals (unless otherwise instructed to do so).
- Always label new containers when transferring products.
- Handle liquids and powders carefully to prevent splashes and spills.
- Always use personal protective equipment for handling hazardous products.

Safe Disposal

When disposing of hazardous materials, be sure to refer to the SDS (Section 13 – Disposal Considerations) for recommended waste disposal instructions.

Hazardous Material Emergency

In the event of an emergency, you need to take two actions immediately.

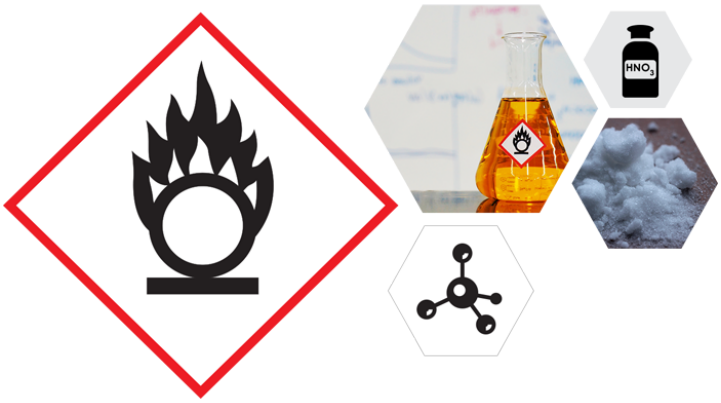
- Get help.
- Report all hazardous product emergencies to your Manager/Supervisor or Facility Manager/Designate.

NOTE: Oxidizing gas means any gas which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does.

The flame pictogram is used for the following classes and categories:

Flammable gases (Category 1)
Flammable aerosols (Category 1 and 2)
Flammable liquids (Category 1, 2, and 3)
Flammable solids (Category 1 and 2)

The flame over circle pictogram is used for the following classes and categories:



Oxidizing gases (Category 1)
Oxidizing liquids (Category 1, 2 and 3)
Oxidizing solids (Category 1, 2 and 3)

The gas cylinder pictogram is used for the following classes and categories:

Gases under pressure (Compressed, Liquefied, Refrigerated liquefied)

The corrosion pictogram is used for the following classes and categories:

Corrosive to metals (Category 1)
Skin corrosion/irritation – Skin corrosion (Category 1, 1A, 1B and 1C)
Serious eye damage/eye irritation – Serious eye damage (Category 1)

The exploding bomb pictogram is used for the following classes and categories:

Self-reactive substances and mixtures (Types A and B)
Organic peroxides (Types A and B)

The skull & crossbones pictogram is used for the following classes and categories:

Acute toxicity
Oral (Category 1, 2, and 3)
Dermal (Category 1, 2 and 3)
Inhalation (Category 1, 2 and 3)

The health hazard pictogram is used for the following classes and categories:

- Respiratory or skin sensitization – Respiratory sensitizer (Category 1, 1A and 1B)
- Germ cell mutagenicity (Category 1, 1A, 1B and 2)
- Carcinogenicity (Category 1, 1A, 1B and 2)
- Reproductive toxicity (Category 1, 1A, 1B and 2)
- Specific Target Organ Toxicity – Single exposure (Category 1 and 2)
- Specific Target Organ Toxicity – Repeated exposure (Category 1 and 2)
- Aspiration hazard (Category 1)

The exclamation mark pictogram is used for the following classes and categories:

- Acute toxicity – Oral, Dermal, Inhalation (Category 4)
- Skin corrosion/irritation – Skin irritation (Category 2)
- Serious eye damage/eye irritation – Eye irritation (Category 2, 2A)
- Respiratory or skin sensitization – Skin sensitizer (Category 1, 1A, and 1B)
- Specific target organ toxicity – Single exposure (Category 3)

The biohazardous infectious materials pictogram is used for the following classes and categories:

- Biohazardous Infectious Materials (Category 1)