#### **WHMIS**

## **WHMIS - Pictograms**

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#### **Important Information**

Canada has aligned the Workplace Hazardous Materials Information System (WHMIS) with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

This document discusses the WHMIS supplier requirements as regulated by the federal legislation – the Hazardous Products Act and the Hazardous Products Regulations (HPR). This document reflects the Hazardous Products Regulations requirements as of December 15, 2022. The changes introduced in December 2022 are in force. Suppliers are granted a 3-year transition period (to December 15, 2025) to bring product classifications, safety data sheets and labels into compliance with the amendments.

For most workplaces, the most notable impact will be seen in the changes to the flammable gases class and the new class of chemicals under pressure.

Health Canada is the government body responsible for the overall WHMIS supplier-related laws. Note that WHMIS is also regulated in the workplace by the provinces, territories and federal (for federally regulated workplaces) governments under their occupational health and safety legislation. While these jurisdictions based their WHMIS regulations on the common model, small variations between jurisdictions may exist.

Suppliers and employers must use and follow the WHMIS requirements for labels and safety data sheets (SDSs) for hazardous products sold, distributed, or imported into Canada.

Please refer to the following OSH Answers documents for more information about WHMIS:

- WHMIS General
- WHMIS Labels
- WHMIS Hazard Classes and Categories

- WHMIS Safety Data Sheets (SDSs)
- WHMIS Education and Training
- WHMIS WHMIS Program
- WHMIS Glossary
- WHMIS Confidential Business Information (CBI)
- WHMIS Variances
- WHMIS Laboratories

#### What is a pictogram?

Pictograms are graphic images that immediately show the user of a hazardous product what type of hazard is present. With a quick glance, you can see, for example, that the product is flammable or that it might be a health hazard.

Most pictograms have a distinctive red "square set on one of its points" border. Inside this border is a symbol that represents the potential hazard (e.g., fire, health hazard, corrosive, etc.). Together, the symbol and the border are referred to as a pictogram. Pictograms are assigned to specific hazard classes or categories.

The graphic below shows hazard pictograms. The bold type is the name given to the pictogram; the words in the brackets describe the hazard.

	Exploding bomb (for explosion or reactivity hazards)		Flame (for fire hazards)		Flame over circle (for oxidizing hazards)
	Gas cylinder (for gases under pressure)		Corrosion (for corrosive damage to metals, as well as skin, eyes)		Skull and Crossbones (can cause death or toxicity with short exposure to small amounts)
	Health hazard (may cause or suspected of causing serious health effects)	<b>(1)</b>	Exclamation mark (may cause less serious health effects or damage the ozone layer*)	*	Environment* (may cause damage to the aquatic environment)
<b>®</b>	Biohazardous Infectious Materials (for organisms or toxins that can cause diseases in people or animals)				

The GHS system also defines an Environmental hazards group. This group (and its classes) was not adopted in WHMIS 2015. However, you may see
the environmental classes listed on labels and Safety Data Sheets (SDSs). Including information about environmental hazards is allowed by
WHMIS 2015.

# What pictograms are used with WHMIS hazard classes and categories?

The following pictograms are associated with these hazard classes and categories.



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

- Flammable gases (Category 1A and 1B Flammable gas; Category 1A and 1B Chemically unstable gas; Category 1A Pyrophoric gas))
- Aerosols (Category 1 and 2)
- Flammable liquids (Category 1, 2 and 3)
- Flammable solids (Category 1 and 2)
- Pyrophoric liquids (Category 1)
- Pyrophoric solids (Category 1)
- Self-heating substances and mixtures (Category 1 and 2)
- Substances and mixtures which, in contact with water, emit flammable gases (Category 1, 2 and 3)
- Self-reactive substances and mixtures (Types B\*, C, D, E and F)
- Organic peroxides (Types B\*, C, D, E and F)
- Chemicals under pressure (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 gas, Liquefied gas, Refrigerated liquefied gas, and Dissolved gas)
- Chemicals under pressure (Category 1\*\*, 2\*\* and 3)



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 and crossbones pictogram is used for the following classes and categories:

- Acute toxicity
  - o 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 and 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)
- \* Both the Flame and Explosive pictograms are used for Self-reactive substances and mixtures (Type B) and Organic peroxides (Type B).
- \*\* Both the Flame and Cylinder pictograms are used for Chemicals under pressure, categories 1 and 2.

**NOTE:** Physical Hazards Not Otherwise Classified and Health Hazards Not Otherwise Classified classes are required to have a GHS pictogram that is appropriate to the hazard identified

### Do all hazard classes and categories require a pictogram?

No. There are hazardous products that meet the criteria for a hazard class or category, but these classes and categories do not require a pictogram. The product label and Section 2 (Hazards Identification) of the SDS still require the signal word, hazard statement(s), and other required label elements.

WHMIS classes and categories that do not require a pictogram are:

- Aerosols Category 3
- Flammable gases Category 2
- Flammable liquids Category 4
- Self-reactive substances and mixtures Type G
- Organic peroxides Type G

- Combustible dusts Category 1
- Simple Asphyxiants Category 1
- Serious eye damage/eye irritation Eye Irritation Category 2B
- Reproductive toxicity Effects on or via lactation

#### Where will I find the pictograms?

Pictograms will be on the product supplier labels of the hazardous products you work with. They will also be on the SDSs (as the symbol or words that describe the symbol). Please see the following for more information:

- WHMIS Labels
- WHMIS Safety Data Sheets (SDSs)

You may also be interested in our WHMIS Pictograms poster and our WHMIS Pictograms Kit.

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### **Disclaimer**

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