

WHMIS Basics



What is WHMIS?

WHMIS is a short form for Workplace Hazardous Materials Information System. It is a national system for providing information on the safe use of hazardous products in the workplace.

WHMIS was created:

- as a way to ensure every Canadian worker's right to know about the safety and health hazards is met.
- to help reduce the injuries, illnesses, deaths, medical costs, fires and explosions caused by the unsafe use of hazardous products. Hazardous products can be used safely if appropriate precautions are followed.

Responsibilities

Suppliers, employers and workers have different responsibilities under WHMIS:

Suppliers sell or import products. Suppliers must determine if their products meet the criteria to be classified under WHMIS. Products that are covered by WHMIS are known as "hazardous products". When a product is determined to be a "hazardous product", the supplier must label the product, and provide a safety data sheet (SDS) to their customers. The SDS explains the hazards and safe handling procedures for the product, while the label provides a summary of information that is immediately available to the worker.

Employers must provide education and training programs for workers exposed to hazardous products in the workplace. Employers must also make sure products are labelled and that an SDS is present and readily available to workers.

Workers are required to participate in the education and training programs and to use this information to help them work safely with hazardous products. For example, they can inform employers when labels on containers have been accidentally removed or if the label is no longer readable.

Components of WHMIS

The four components of WHMIS are:

- hazard identification and product classification
- labels
- safety data sheets (SDS)
- worker education and worksite specific training.

Safety Data Sheet (SDS)

SDSs are prepared by the supplier or manufacturer of the product.











Think of the SDS as having four main purposes. It provides information on:

- **Identification:** for the product and supplier
- **Hazards:** physical (fire and reactivity) and health.
- **Prevention:** steps you can take to work safely, reduce or prevent exposure, or in an emergency
- **Response:** appropriate responses in various situations (e.g., first-aid, fire, accidental release).

Employers and workers use the information on the SDS to protect themselves from hazards, and for safe handling and emergency measures.

In Canada, every hazardous product that is controlled by WHMIS must have an accompanying SDS (both the product name and supplier on the SDS must match the product in use).

WHMIS 2015 Pictograms

	<p>This pictogram is used for indicating flammable gases, aerosols, liquids and solids; pyrophoric liquids, gases and solids; self-heating substances and mixtures; substances and mixtures that produce flammable gases when in contact with water; organic peroxides; and self-reactive substances and mixtures.</p>		<p>For hazardous products that can cause death or acute toxicity after exposure to small amounts of the products, this pictogram is used to warn users of the potential dangers. It is placed on labels of materials with acute oral, dermal and inhalation toxicity. For instance, the pictogram can be used on containers for cleaning chemicals</p>
	<p>The pictogram is flame over a circle plus a distinctive red “diamond” shaped border. It is used to indicate oxidizing gases, liquids and solids.</p>		<p>This Pictogram is used to indicate a product that causes or is suspected of causing serious health effects. It forms part of labels of products that cause respiratory sensitivity, skin toxicity, germ cell mutagenicity, carcinogenicity, reproductive toxicity, aspiration hazard, specific target organ toxicity after single exposure, and specific target organ toxicity after repeated exposure.</p>
	<p>This pictogram is used to indicate the hazard of gases under pressure such as dissolved gas, liquefied gas, compressed gas and refrigerated liquefied gas.</p>		<p>Used for hazardous products that cause less serious health effects, the Exclamation Mark Pictogram indicates acute toxicity (oral, dermal or inhalation), skin corrosion (irritation), eye irritation, skin sensitivity, respiratory damage, and specific target organ toxicity on single exposure.</p>
	<p>The corrosive pictogram indicates a substance that can irritate the skin and eyes, and damage metals. It is used for hazardous products that are corrosive to metals, cause skin irritation (corrosion), and cause serious eye irritation or damage.</p>		<p>Indicates the presence of organisms or toxins that can cause diseases in humans and animals, The Biohazardous Infectious Materials pictogram has been retained from WHMIS 1988. The pictogram is used on labels of biohazardous infectious materials. For instance, it is used on growths of micro-organisms like E. coli or salmonella bacteria cultures.</p>
	<p>Used to indicate explosion or reactivity hazards, the Exploding Bomb Pictogram is placed on the labels of self-reactive substances and mixtures, and on labels of organic peroxides.</p>		<p>This GHS pictogram has not been integrated into WHMIS, however it stands for Environmental Hazards.</p>

Consumer Products




Consumer products are chemical products sold to Canadians for general household use that have certain hazards (such as toxic, corrosive, flammable). Consumer products use different symbols than WHMIS.


Consumer product symbols are framed by one of two shapes, which signify whether it is the contents of the container or the container itself that is dangerous.

An octagon (stop sign) means the contents of the container are dangerous.

The upside-down triangle means that the container is dangerous.

The following table lists the types of hazards identified on consumer products.

Symbol	Danger	Product Examples
<p>Explosive</p> 	<p>This container can explode if it is heated or punctured. Flying pieces of metal or plastic can cause serious injuries, especially to the eyes.</p>	<p>Water repellent for shoes or boots in an aerosol container Spray paint in an aerosol container</p>
<p>Corrosive</p> 	<p>This product can burn skin or eyes on contact, or throat and stomach if swallowed.</p>	<p>Toilet bowl cleaner Oven cleaner</p>
<p>Flammable</p> 	<p>This product or its vapour, can catch fire easily if it is near heat, flames or sparks.</p>	<p>Contact adhesives Solvents</p>

<p style="text-align: center;">Toxic</p> 	<p>Licking, eating, drinking, or sometimes smelling, this product can cause illness or death.</p>	<p>Windshield washer fluid Furniture polish</p>
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Adapted from: *Stay Safe - A Safety Education Guide to Household Chemical Products for Children 5 to 9 years of age*. Consumer Product Safety (CPS), Health Canada. Available online at: <http://publications.gc.ca/site/eng/449934/publication.html>

Below the symbol will appear a signal word. The signal words and their meaning are:

- **CAUTION** means temporary injury may be frequent. Death may occur with extreme exposure.
- **DANGER** means may cause temporary or permanent injury or death.
- **EXTREME DANGER** means exposure to very low quantities may cause death or temporary or permanent injury.
- The back or side label of regulated containers will always have some type of bordered area. Inside the border, you will find safety instructions, the words FIRST AID TREATMENT along with instructions in case of injury and a list of harmful substances in the product.

FIRST AID TREATMENT

This product contains ammonia.

If splashed on eyes or skin, flush thoroughly with water.

If swallowed, drink 240-300 mL (8 to 10 oz.) of water.

DO NOT INDUCE VOMITING.

CALL PHYSICIAN OR POISON CONTROL CENTRE IMMEDIATELY.

Note: Consumer Products are partially covered under WHMIS — an SDS is not required, but employers must still educate employees on the hazards and safe handling procedures for these products.