

# WHMIS After GHS: Preparing for Change



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# 1. About this publication

WHMIS is changing. The substance of WHMIS (labels, MSDSs, and training) will remain, but WHMIS information will look significantly different.

There will be new procedures and adjustments for suppliers, employers and workers in workplaces across Canada. WHMIS is changing because of the adoption of new rules for classification and labelling of chemical products, and the preparation of safety data sheets (SDSs, to replace the familiar MSDSs). The new rules are the result of almost 2 decades of work by international organizations to develop a “Globally Harmonized System of Classification and Labelling of Chemicals” (GHS).

This publication has three main objectives:

1. To provide an overview of the new Globally Harmonized System (GHS),
2. To describe the changes to WHMIS that are expected because of the adoption of GHS rules for classification, labelling and SDSs, and
3. To provide some advice about steps that suppliers and employers can take in order to make the transition to “WHMIS after GHS”.

The term “WHMIS after GHS” is used to describe the way WHMIS will work after the changes needed to implement the GHS in Canadian workplaces.

Currently, the government departments responsible for workplace health and safety are working with other parties (suppliers, employers, and labour groups) to develop agreements on the detailed changes to Canadian legislation that will be required to implement WHMIS after GHS. The lead agency in this effort is the National Office of WHMIS (NOW) in Health Canada. Updated legislation at the federal, provincial and territorial levels will be required. Many details of the changes have been tentatively agreed. Specific regulatory proposals to update WHMIS legislation are anticipated in 2010.

The “WHMIS after GHS” system described in this publication is based on the tentative agreements to date and on reasonable expectations regarding the nature of the updated legislation. It is important to keep in mind that the final legislation may differ in some key details. The information provided in this publication should not be regarded as fixed and unchangeable. This publication will be updated as required as new information becomes available.

Within Canada there are 5 different systems that regulate the safety classification and labelling of hazardous materials. These pieces of legislation are:

1. WHMIS
2. Consumer products
3. Pest control products
4. Explosives, and
5. Transportation of dangerous goods (TDG)

The agencies responsible for these systems are all working on GHS implementation plans in a coordinated approach. Products regulated under all of these systems occur in Canadian workplaces and the GHS elements described in this publication will appear in workplaces on products from these sources.

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## 5. Overview of “WHMIS after GHS”

### Introduction

WHMIS (Workplace Hazardous Material Information System) is our national hazard communication system that provides information on the safe use of hazardous materials in Canadian workplaces.

GHS – the Globally Harmonized System of Classification and Labelling of Chemicals - covers all chemical substances and mixtures. In Canada, several laws that help protect Canadians from hazardous products will change in order to accommodate GHS. These laws include those that regulate:

- hazardous materials in the workplace (WHMIS)
- consumer products,
- pesticides and other pest control products,
- the transportation of dangerous goods, and
- explosives.

GHS will not replace WHMIS. WHMIS will be modified to incorporate the GHS elements. There will be new:

- classification rules,
- label requirements, and
- safety data sheet (SDS) (formerly: material safety data sheet) format with some additional new content required.

Hazard communication will be more standardized. For example, the labels will use standard hazard statements, signal words, and pictograms. Precautionary statements may also be prescribed.

### Roles, Responsibilities and Duties

The current roles and responsibilities for suppliers, employers and workers likely will not change in WHMIS after GHS.

Suppliers’ duties will continue to include:

- classifying hazardous products,
- preparing labels and SDSs, and
- providing these elements to customers.

Employers must continue to:

- educate and train workers on the hazards and safe use of products,
- ensure that hazardous materials are properly labelled,
- prepare workplace labels and SDSs as necessary,
- provide access for workers to up-to-date SDSs, and
- ensure appropriate control measures are in place to protect the health and safety of workers.

Workers will still:

- participate in WHMIS and chemical safety training programs,
- take necessary steps to protect themselves and their coworkers, and
- participate in identifying and controlling hazards.

### Classification

After consultation with stakeholders, Canadian WHMIS authorities will decide which GHS classes and categories will be adopted. The GHS classification criteria for these classes and categories will become the new WHMIS criteria.

Most of the existing WHMIS hazards classes are covered by GHS, but some hazard classes will have more specific names. Some new classes may be added to WHMIS by GHS, including explosives (currently covered by other legislation).










Currently there are two hazards addressed in WHMIS legislation that are not included in GHS:

- Biohazardous Infectious Material (WHMIS Class D3)
- Substances and mixtures which react with water to release a toxic gas or vapour (part of WHMIS Class F)

## 8. Symbols and Pictograms

Symbols and pictograms are used to provide a graphical description of product hazards. They are based on the severity of the hazard. In some cases, no pictogram will be required. GHS uses nine different symbols, most of which are based on the Transportation of Dangerous Goods regulations.

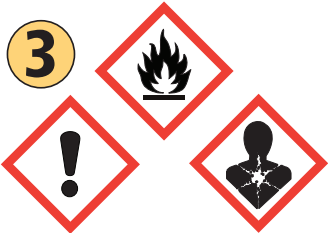
GHS also prescribes a “name” for each symbol:

|   |                   |   |                      |   |                  |
|---|-------------------|---|----------------------|---|------------------|
|    | Exploding bomb    |    | Gas cylinder         |    | Exclamation mark |
|  | Flame             |  | Corrosion            |  | Health hazard    |
|  | Flame over circle |  | Skull and crossbones |  | Environment      |

## Sample label elements

General labelling requirements include that supplier labels must be bilingual (English/French), easy to read, and durable. If the label is lost, damaged, or no longer readable, the product must be relabelled.

**1 Cleans SUPER Great**  
Contains: abc-ketone, 1,2-special glycol ether **2**

**3** 

**4 Danger**  
**5** Highly flammable liquid and vapour  
Causes serious eye irritation  
May be harmful if swallowed and enters airway

**6**  
**Precautions:** Keep away from heat / sparks / open flames / hot surfaces. No smoking. Take precautionary measures against static discharge. Keep container tightly closed. Store in a well-ventilated place. Wear protective gloves/eye protection/face protection.

- **IF ON SKIN (or hair):** Remove all contaminated clothing immediately. Rinse skin with water/shower.
- **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. If eye irritation persists: Get medical advice/attention.
- **IF SWALLOWED:** Immediately call a Poison Center or doctor/physician. Do not induce vomiting.
- **IN CASE OF FIRE:** Use carbon dioxide, dry chemical powder or appropriate foam to extinguish fires.









**7 See Safety Data Sheet for further information**  
ABC Chemical Company, 12345 Main St. Chemical Town, ON.  
M5Z 1Z1  
Phone: 123-456-7890 Fax: 987-654-3210 **8**

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# Appendix A

Below is another way to group classes and their pictograms. Hazard class names are bolded. Again, some hazard classes have more than one pictogram to reflect the different degrees of that hazard.

## Physical Hazard Classes

|   |   |
|---|---|
|    | <b>Explosives</b> – materials capable of explosive reactions, including pyrotechnics.   |
|    | <b>Flammable gases; Flammable aerosols; Flammable liquids; Flammable solids</b> – materials that can burn in air when ignited.              |
|   | <b>Oxidizing gases; Oxidizing liquids; Oxidizing solids</b> – materials that can cause or increase the intensity of a fire.                 |
|  | <b>Self-reactive substances and mixtures</b> – unstable materials that can decompose rapidly and upon heating, can cause fire or explosion. |
|  | <b>Pyrophoric liquids; Pyrophoric solids</b> – materials that can readily ignite when exposed to air.                                       |
|  | <b>Self-heating substances and mixtures</b> – materials that can decompose slowly and become hot when exposed to air.                       |
|  | <b>Organic peroxides</b> – materials that are unstable, highly reactive or explosive.   |
|  | <b>Corrosive to metals</b> – materials that can damage or destroy metals.   |

## Health Hazard Classes

|   |   |
|---|---|
|    | <b>Acute toxicity</b> – materials that can cause toxic effects following a single exposure  |
|    | <b>Skin corrosion/irritation</b> – materials that can cause irreversible skin damage (corrosion) or reversible damage (irritation)                          |
|   | <b>Serious eye damage/ Eye irritation</b> – materials that can cause irreversible or reversible eye damage  |
|  | <b>Respiratory sensitization</b> – materials that can cause asthma or respiratory hypersensitivity.   |
|  | <b>Skin sensitization</b> – materials that can cause allergic skin reactions.   |
|  | <b>Germ cell mutagenicity</b> – materials that can cause damage to the DNA in the reproductive cells of humans that can be passed to future generations.    |
|  | <b>Carcinogenicity</b> – materials that can cause increased risk of cancer.   |
|  | <b>Reproductive toxicity</b> – materials that can cause reduced sexual function and fertility of adults or adverse affects on the development of offspring. |