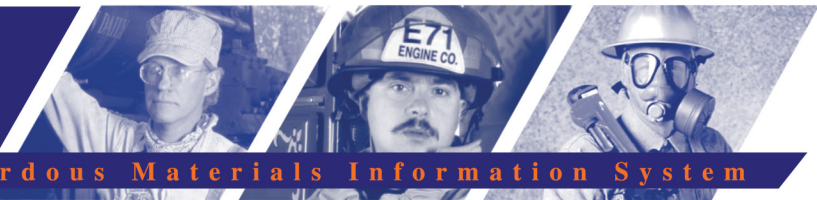




# WHMIS After GHS

Workplace Hazardous Materials Information System



“WHMIS After GHS” provisional infosheets introduce the components of WHMIS as they may appear once the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is implemented in Canada. This infosheet is intended to be informational and is not final or official. See [www.whmis.gc.ca](http://www.whmis.gc.ca) for more information.

## WHMIS After GHS – An Overview

### What is GHS?

GHS is an international initiative to standardize chemical hazard classification and communication globally. The implementation of GHS in WHMIS will help harmonize hazard communication systems worldwide.

WHMIS is a national hazard communication system that provides information on the safe use of hazardous materials in Canadian workplaces. GHS will not replace WHMIS. WHMIS will be modified to incorporate the GHS elements. There will be new **standardized**:

- classification rules
- label requirements
- safety data sheet (SDS) format (formerly material safety data sheet (MSDS))

### Classification

Classification criteria will change in WHMIS after GHS. WHMIS will remain as protective after the adoption of GHS classes. Some new classes will be added, including aspiration hazard. See the *WHMIS After GHS Hazard Classes* Infosheet for more information.

### Supplier Labels

Supplier labels will have a few new requirements. Most of the label elements will be standardized. Each hazard class and category will have a prescribed signal word, hazard statement, pictogram(s), and precautionary statement(s). Supplier labels will continue to be required in both English and French. See the *WHMIS After GHS Supplier Labels* Infosheet for more information.

Hazard communication will be more standardized. Standardized hazard statements, signal words, and pictograms will be introduced. Precautionary statements will also be prescribed.

### Safety Data Sheets (SDSs)

SDSs will follow a standard 16-section format with specific information requirements. These GHS-format SDSs are permitted for use in Canada now as long as the current WHMIS requirements are met.

The SDSs must be accurate at the time of sale or import, for each sale or import. For further information, see the *WHMIS After GHS Safety Data Sheets* Infosheet.

### Confidential Business Information – Trade Secrets

The current trade secret rules will still apply.

### Roles, Responsibilities and Duties

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

Suppliers will still classify hazardous products, prepare labels and SDSs, and provide these to customers. See the *WHMIS After GHS Information for Suppliers and Importers* Infosheet for more information.

Employers will still ensure that all hazardous products are properly labelled and make up-to-date SDSs readily available to workers. Employers will also provide worker education and training and ensure appropriate control measures to protect the health and safety of workers. See the *WHMIS After GHS Information for Employers* Infosheet for more information.

Workers will still participate in WHMIS training programs, take necessary steps to protect themselves and their co-workers, and participate in identifying and controlling hazards.

### Timeline

Health Canada’s consultation with stakeholders is ongoing. The GHS is anticipated to be implemented in Canada in June 2015.

Subscribe to Health Canada’s listserv, WHMIS News, which provides information updates as they become available. [www.whmis.gc.ca](http://www.whmis.gc.ca)



# WHMIS

## After GHS

Workplace Hazardous Materials Information System



“WHMIS After GHS” provisional infosheets introduce the components of WHMIS as they may appear once the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is implemented in Canada. This infosheet is intended to be informational and is not final or official. See [www.whmis.gc.ca](http://www.whmis.gc.ca) for more information.

## Information for Suppliers and Importers

The implementation of GHS in WHMIS will help harmonize Canada’s hazard communication system with those of other countries. The benefits will include a globally standardized approach for hazard classification and hazard communication (supplier labels and Safety Data Sheets (SDS)).

### Supplier and Importer Responsibilities

Under WHMIS after GHS, suppliers will continue to:

- Classify products
- Create labels
- Create SDSs (formerly MSDSs)

### Classification

WHMIS after GHS will have many hazard classes. Most classes will use criteria similar to those in the current WHMIS classes and divisions. Some new classes will be added, including aspiration hazard. The GHS classes contain subdivisions (called “categories” or “types”) which reflect varying degrees of hazard. See the *WHMIS After GHS Hazard Classes Infosheet* for more information on hazard classes.

To prepare to classify a product, suppliers could:

1. Obtain a copy of the criteria.
2. Identify the relevant hazard data for products.
3. Review the data in light of the classification criteria to determine the appropriate hazard classes and categories. Note that there is specific guidance for classifying mixtures.
4. Document the rationale and information for future reference.

Once final changes to WHMIS regulations have been published, confirm product classifications.

Suppliers must determine classifications based on comparison of all available hazard data to the GHS criteria. The test methods used must be scientifically sound and valid.

### Hazard Communication

#### Supplier Labels and Safety Data Sheets

Standardized information will be prescribed for hazard statements, signal words, and pictograms based on hazard classes and categories. Precautionary statements will also be prescribed.

#### Supplier Labels

Most of the label elements will be standardized. Each hazard class and category will have a prescribed signal word, hazard statement, precautionary statements and pictogram. English and French will continue to be required. See the *WHMIS After GHS Supplier Labels Infosheet* for further information.

#### Safety Data Sheets

SDSs will use a standard 16-section format. There will be some new information requirements. For example, the WHMIS classification, hazard statements and other label elements will be required in Section 2.

The SDSs must be accurate at the time of sale or import, for each sale or import. For further information, see the *WHMIS After GHS Safety Data Sheets Infosheet*.

#### Confidential Business Information – Trade Secrets

The current trade secret rules will still apply.



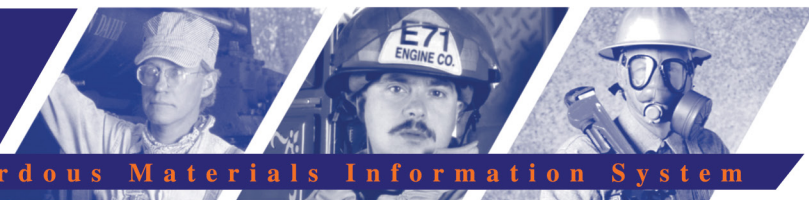
The Canadian implementation of the GHS is based on the 5th revised edition.

[http://www.unece.org/trans/danger/publi/ghs/ghs\\_rev05/05files\\_e.html](http://www.unece.org/trans/danger/publi/ghs/ghs_rev05/05files_e.html)



# WHMIS After GHS

Workplace Hazardous Materials Information System



“WHMIS After GHS” provisional infosheets introduce the components of WHMIS as they may appear once the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is implemented in Canada. This infosheet is intended to be informational and is not final or official. See [www.whmis.gc.ca](http://www.whmis.gc.ca) for more information.

## Information for Employers

The implementation of GHS in WHMIS will help harmonize Canada’s chemical hazard communication system with those of other countries. The benefits will include a globally standardized approach for hazard classification and hazard communication (labels and Safety Data Sheets (SDSs)) that will help to provide more consistent hazard information.

### Employers’ Duties

Under WHMIS after GHS, employers must continue to:

- Educate and train workers on the hazards and safe use of products.
- Ensure that hazardous products are properly labelled.
- Prepare workplace labels and SDSs as necessary.
- Provide access for workers to up-to-date SDSs.

### Worker Education and Training

Employers will be required to educate and train workers about WHMIS after GHS. Revised training programs, developed in consultation with the health and safety committee, will include:

- New hazard pictograms (some are similar to existing WHMIS symbols, others are new). See the *WHMIS After GHS Pictograms* Infosheet.
- New hazard classes. See *WHMIS After GHS Hazard Classes* Infosheet.
- New labels and their required elements such as signal words. See *WHMIS After GHS Supplier Labels* Infosheet.
- The meaning of **all** signal words and hazard statements found on labels and SDSs in the workplace, such as *Danger - May cause cancer*.
- The new SDS format and how to locate information needed to work safely with a product.
- Worksite-specific training on measures to work safely with hazardous products.

After GHS implementation, SDSs and labels for products originating within and outside of Canada will share common elements. This will simplify education and training.

### Supplier Labels

New requirements for supplier labels include signal words and hazard statements. Standardized precautionary statements will be required.

Information for most of the label elements will be standardized. Each hazard class and category will have a prescribed signal word, hazard statement and pictogram. Supplier labels will continue to be required in both English and French. See the *WHMIS After GHS Supplier Labels* Infosheet for further information.

The preparation of workplace labels will still be required.

### Safety Data Sheets (SDSs)

SDSs will follow a standard 16-section format. There will be some new information requirements, for example, inclusion of the WHMIS classification, hazard statements and other label elements in Section 2. For further information, see the *WHMIS After GHS Safety Data Sheets* Infosheet.

It is anticipated that the SDS will be updated when significant new information becomes available.

Worker access to SDSs is a continuing requirement. Ensure that updated SDSs are obtained for all hazardous products used in the workplace.

### Confidential Business Information – Trade Secrets

The current trade secret rules will still apply.

**The Canadian implementation of the GHS  
is based on the 5th revised edition.**

[http://www.unece.org/trans/danger/publi/ghs/ghs\\_rev05/05files\\_e.html](http://www.unece.org/trans/danger/publi/ghs/ghs_rev05/05files_e.html)

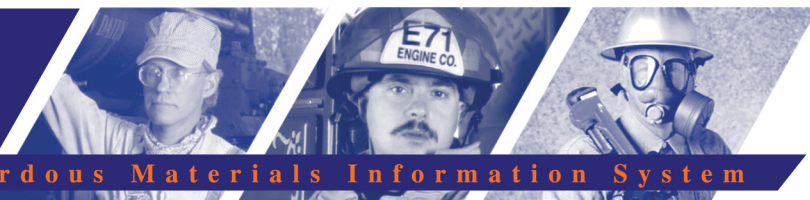
**TIP** – It is critical to have an accurate inventory of the SDSs required in the workplace. Many organizations will benefit from electronic SDS management systems.



# WHMIS

## After GHS

Workplace Hazardous Materials Information System



“WHMIS After GHS” provisional infosheets introduce the components of WHMIS as they may appear once the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is implemented in Canada. This infosheet is intended to be informational and is not final or official. See [www.whmis.gc.ca](http://www.whmis.gc.ca) for more information.

## Pictograms and Their Hazards

WHMIS After GHS Pictogram	Types of Hazards
	<b>Gases under pressure</b>
	<b>Flammables</b> (gases, aerosols, liquids, solids), <b>Pyrophoric</b> (liquids, solids, gases), <b>Self-reactive substances and mixtures</b> , <b>Self-heating substances and mixtures</b> , <b>Substances and mixtures which, in contact with water, emit flammable gases</b> , <b>Organic peroxides</b>
	<b>Oxidizing</b> (liquids, solids, gases)
	<b>Organic peroxides</b> , <b>Self-reactive substances and mixtures</b>
	<b>Acute toxicity</b> (fatal and toxic via oral, skin, inhalation)
	<b>Carcinogenicity</b> ; <b>Germ cell mutagenicity</b> ; <b>Respiratory sensitization</b> ; <b>Reproductive toxicity</b> ; <b>Specific target organ toxicity - single exposure</b> , <b>Specific target organ toxicity - repeated exposure</b> ; <b>Aspiration hazard</b>
	<b>Acute toxicity</b> (harmful via oral, skin, inhalation); <b>Skin irritation</b> ; <b>Eye irritation</b> ; <b>Skin sensitization</b> ; <b>Specific target organ toxicity - single exposure</b>
	<b>Corrosive to metals</b> ; <b>Skin corrosion</b> ; <b>Serious eye damage</b>
	<b>Self-reactive substances and mixtures</b> , <b>Organic peroxides</b>
	<b>Biohazardous infectious materials</b>

Explosives and Environmental Hazard Classes exist in GHS but they are not proposed to be adopted in Canada under WHMIS.

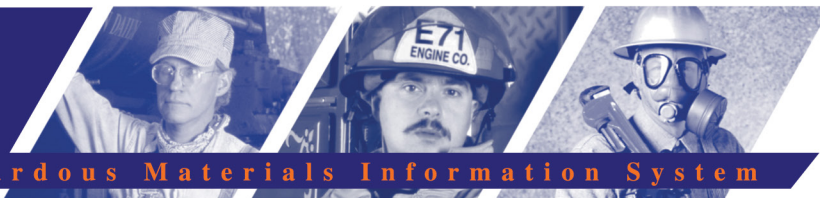
	<b>Explosives</b>
	<b>Hazardous to the aquatic environment</b>
	<b>Hazardous to the ozone layer</b>

The requirements for pictograms are based on the severity of the hazard. In some cases no pictogram will be required.



# WHMIS After GHS

Workplace Hazardous Materials Information System



“WHMIS After GHS” provisional infosheets introduce the components of WHMIS as they may appear once the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is implemented in Canada. This infosheet is intended to be informational and is not final or official. See [www.whmis.gc.ca](http://www.whmis.gc.ca) for more information.

## Hazard Classes

WHMIS after GHS will have many classes for specific hazards identified in the current WHMIS system of classes and divisions, as well as additional hazards.

### Physical Hazard Classes

1. Flammable Gases
2. Flammable Aerosols
3. Oxidizing Gases
4. Gases Under Pressure
5. Flammable Liquids
6. Flammable Solids
7. Self-Reactive Substances and Mixtures
8. Pyrophoric Liquids
9. Pyrophoric Solids
10. Self-Heating Substances and Mixtures
11. Substances and Mixtures Which, in Contact with Water, Emit Flammable Gases
12. Oxidizing Liquids
13. Oxidizing Solids
14. Organic Peroxides
15. Corrosive to Metals
16. Combustible Dusts
17. Simple Asphyxiants
18. Pyrophoric Gases
19. Physical Hazards Not Otherwise Classified

### Health Hazard Classes

1. Acute Toxicity
2. Skin Corrosion/Irritation
3. Serious Eye Damage/Eye Irritation
4. Respiratory or Skin Sensitization
5. Germ Cell Mutagenicity
6. Carcinogenicity
7. Reproductive Toxicity
8. Specific Target Organ Toxicity - Single Exposure
9. Specific Target Organ Toxicity - Repeated Exposure
10. Aspiration Hazard
11. Biohazardous Infectious Materials
12. Health Hazards Not Otherwise Classified

The Canadian implementation of the GHS is based on the 5th revised edition.

[http://www.unece.org/trans/danger/publi/ghs/ghs\\_rev05/05files\\_e.html](http://www.unece.org/trans/danger/publi/ghs/ghs_rev05/05files_e.html)

Explosives and Environmental Hazard Classes exist in GHS but they are not proposed to be adopted in Canada under WHMIS.

Explosives
------------

Hazardous to the ozone layer
Hazardous to the aquatic environment



# WHMIS After GHS

Workplace Hazardous Materials Information System





“WHMIS After GHS” provisional infosheets introduce the components of WHMIS as they may appear once the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is implemented in Canada. This infosheet is intended to be informational and is not final or official. See [www.whmis.gc.ca](http://www.whmis.gc.ca) for more information.

## Supplier Labels After GHS

The product label is the worker’s first source of information about the hazards of a product and how to use it safely to protect workers from adverse effects. In WHMIS after GHS, the labels of hazardous workplace products must display the information elements shown below.

**1 Product K1**

**2**  

**3 Danger**

**4** Fatal if swallowed.  
Causes skin irritation.

**Precautions:**  
Wear protective gloves.  
Wash hands thoroughly after handling.  
Do not eat, drink or smoke when using this product.

**5** Store locked up.  
Dispose of contents/containers in accordance with local regulations.

IF ON SKIN: Wash with plenty of water.  
If skin irritation occurs: Get medical advice or attention.  
Take off contaminated clothing and wash it before reuse.  
IF SWALLOWED: Immediately call a POISON CENTRE or doctor. Rinse mouth.

**6**

ABC Chemical Co., 123 Anywhere St., Mytown, ON N0N 0N0 (123) 456-7890

### Note: General labelling requirements

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.

The pictogram(s), signal word and hazard statement(s) must be grouped together on a label. The hatched border previously used by WHMIS is no longer required.

### 1. Product Identifier

The product name exactly as it appears on the container and on the Safety Data Sheet (SDS).

### 2. Hazard Pictograms

Hazard pictograms, determined by the hazard classification of the product. In some cases, no pictogram is required.

### 3. Signal Words (NEW)

“Danger” or “Warning” are used to emphasize hazards and indicate the severity of the hazard.

### 4. Hazard Statements

Brief standardized statements of all hazards based on the hazard classification of the product.

### 5. Precautionary Statements

These statements describe recommended measures to minimize or prevent adverse effects from exposure to the product, including protective equipment and emergency measures. First aid is included in precautionary information.

### 6. Supplier Identifier

The company which made or packaged the product, and is responsible for the label and SDS. Contact the supplier for additional product information.

### Note: Hazardous ingredients

Hazardous ingredients can include the chemical identity of the substance, mixture or alloy. Disclosure of hazardous ingredients on a label is not required under WHMIS. However, the supplier may choose to include them on the label. The hazardous ingredients that present health hazards must be listed on the SDS.

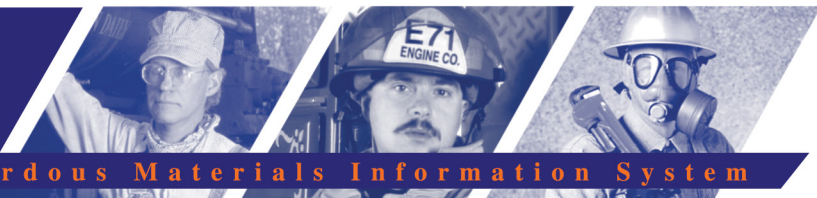
The Canadian implementation of the GHS  
is based on the 5th revised edition.

[http://www.unece.org/trans/danger/publi/ghs/ghs\\_rev05/05files\\_e.html](http://www.unece.org/trans/danger/publi/ghs/ghs_rev05/05files_e.html)



# WHMIS After GHS

Workplace Hazardous Materials Information System



“WHMIS After GHS” provisional infosheets introduce the components of WHMIS as they may appear once the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is implemented in Canada. This infosheet is intended to be informational and is not final or official. See [www.whmis.gc.ca](http://www.whmis.gc.ca) for more information.

## Safety Data Sheets

**Safety Data Sheets (SDSs)** will continue to be an essential component of WHMIS after GHS. Employers and workers use the information on an SDS to protect themselves from hazards and for safe handling and use.

	SDS Section	Information Requirements (partial list)
1	<b>Identification</b>	Product identifier, recommended use and restrictions on use, supplier contact information, emergency phone number.
2	<b>Hazard identification</b>	Classification (hazard class and category), label elements including precautionary statements, other hazards (e.g. thermal hazards).
3	<b>Composition/information on ingredients</b>	Identities of ingredients (common chemical name, synonyms, CAS number, EC number, etc.) including impurities and stabilizing additives where classified, concentrations of ingredients of mixtures.
4	<b>First-aid measures</b>	First-aid measures by route of exposure as well as most important symptoms/effects.
5	<b>Fire-fighting measures</b>	Suitable (and unsuitable) extinguishing media, specific hazards, special equipment and precautions for fire fighters.
6	<b>Accidental release measures</b>	Protective equipment, emergency procedures, methods and materials for containment and clean up.
7	<b>Handling and storage</b>	Precautions for safe handling, conditions for storage, including any incompatibilities.
8	<b>Exposure controls/personal protection</b>	Exposure limits, engineering controls, personal protective equipment.
9	<b>Physical and chemical properties</b>	Appearance, odour, odour threshold, pH, melting/freezing point, boiling point and range, flashpoint, upper and lower flammable or explosive limits.
10	<b>Stability and reactivity</b>	Chemical stability, possible hazardous reactions, conditions to avoid, incompatible materials, hazardous decomposition products.
11	<b>Toxicological information</b>	Description of various toxic effects by route of entry, including effects of acute or chronic exposure, carcinogenicity, reproductive effects, respiratory sensitization.
12	<b>Ecological information*</b>	Aquatic and terrestrial toxicity (where available), persistence and degradability, bioaccumulative potential, soil mobility.
13	<b>Disposal considerations*</b>	Safe handling and methods of disposal, including waste packaging.
14	<b>Transport information*</b>	UN number and proper shipping name, hazard classes, packing group.
15	<b>Regulatory information*</b>	Safety, health and environmental regulations specific to the product.
16	<b>Other information</b>	Other information, including date of preparation of the latest revision of the SDS.

The SDSs must be accurate at the time of sale or import, for each sale or import. SDSs must be updated when significant new information becomes available. Suppliers must provide this new information at the time of sale.

\* Sections 12 to 15 require the headings to be present, but under proposed Canadian regulations, the supplier has the option to not provide information in these sections.

**The Canadian implementation of the GHS  
is based on the 5th revised edition.**

[http://www.unece.org/trans/danger/publi/ghs/ghs\\_rev05/05files\\_e.html](http://www.unece.org/trans/danger/publi/ghs/ghs_rev05/05files_e.html)