



Workplace Hazardous Materials Information System - WHMIS 2015

This package contains the following information:

- WHMIS 2015 Fast Facts (please read and keep for your records)
- GHS Fast Facts (please read and keep for your records)
- WHMIS 1988 & WHMIS 2015 Hazard Symbols/Pictograms (please read and keep for your records)
- WHMIS 2015 & GHS Fast Facts Quiz (complete and return to your Manager for your HR file)
- WHMIS 2015 Hazard Symbols/Pictograms Quiz (complete and return to your Manager for your HR file)

WHMIS 2015 – FAST FACTS

Adapted from:

Canadian Centre for Occupational Health and Safety (CCOHS) OHS Answers Fact Sheets

Source: http://www.ccohs.ca/oshanswers/chemicals/whmis_ghs/general.html

What is WHMIS 2015?

WHMIS stands for the Workplace Hazardous Materials Information System. It provides health and safety information on hazardous products intended for use, handling, or storage in Canadian workplaces.

WHMIS has aligned with the worldwide hazard communication system known as GHS – the Globally Harmonized System of Classification and Labelling of Chemicals. Aligning with GHS provides many benefits, including:

- Hazard classification criteria are more comprehensive which improves ability to indicate severity of hazards.
- New hazard classes are included.
- Physical hazard criteria are consistent with the Transport of Dangerous Goods (TDG regulations).
- Standardized language (hazard and precautionary statements).
- Standardized SDS format and more comprehensive requirements.

Is WHMIS 2015 Law?

Yes. This means that that suppliers may begin to use and follow the new requirements for labels and safety data sheets (SDSs) for hazardous products sold, distributed, or imported into Canada.

However, there is a transition period with various stages:

- From now until May 31, 2017, suppliers (manufacturers and importers) can use WHMIS 1988 **or** WHMIS 2015 to classify and communicate the hazards of their products. The classification, label and (material) SDS must comply fully with the specific regulation chosen by the supplier, and not be a combination of the two.
- Beginning June 1, 2017 to May 31, 2018, distributors can continue to sell, and suppliers importing for their own use can continue to import, hazardous products with labels and (M)SDSs that are compliant with WHMIS 1988 or WHMIS 2015.

This means that employers may need to train their employees on both WHMIS 1988 and WHMIS 2015 during the transition period.

What are the main parts of WHMIS 2015?

- Hazard identification
- Product classification
- Labelling
- Safety data sheets (SDS) (or Material Safety Data Sheets – MSDS under WHMIS 1998)
- Worker education and training

What are the employers' duties under WHMIS 2015?

When a hazardous product is used in the workplace, employers are required to:

- Educate and train workers on the hazards and safe use of products.
- Ensure that hazardous products are properly labelled.
- Prepare workplace labels, as needed.
- Prepare SDSs, as necessary (e.g., if an employer manufactures a hazardous product that is used on-site).
- Provide access to up-to-date SDSs to workers.
- Ensure appropriate control measures are in place to protect the health and safety of workers.

What are the workers duties under WHMIS 2015?

- Participate in WHMIS education and training programs
- Take necessary steps to protect themselves and their co-workers
- Participate in identifying and controlling hazards.

What are the suppliers' duties under WHMIS 2015?

- Ensure the appropriate classification of hazardous products.
- Label the product or container when a product is considered to be a "hazardous product"
- Provide a safety data sheet (SDS) to their customers.

The purpose of the label is to clearly identify the hazardous product, the supplier, the hazards and precautionary measures. The SDS provides more information about that product.

GLOBALLY HARMONIZED SYSTEM (GHS) – FAST FACTS

Adapted from:

The Public Services Health & Safety Association

Source: <http://www.pshsa.ca/products/whmis-2015-fast-fact/>

What is GHS?

The Globally Harmonized System (GHS) is an internationally consistent approach to classifying chemicals and communicating hazard information through labels and safety data sheets. The implementation of GHS will mean that all workplaces will have consistent hazard information. The Intent of GHS is to help facilitate trade by eliminating multiple classification systems as well as enhance protection of human health by using standard messaging.

What Changes?

The four cornerstones of WHMIS are Classification, Training, Labels and Material Safety Data Sheets (MSDS). GHS is based on these same four building blocks and will provide improved protection for workers when handling hazardous material. Overall the current roles and responsibilities set out in WHMIS that apply to suppliers, employers and workers will remain the same. While some elements and symbols may be retained, there are a few changes to be aware of which are summarized below.

Classification Rules

GHS classification takes a “building block approach”.

The three major hazard groups are:

1. Health hazards,
2. Physical hazards
3. Environmental hazards

There are then classes and categories under each of these three groups.

1. Health Hazards Classes:

- Acute toxicity
- Skin corrosion/irritation
- Serious eye damage/eye irritation
- Respiratory sensitization/skin sensitization
- Germ cell mutagenicity
- Carcinogenicity
- Reproductive toxicity
- Specific target organ toxicity – single exposure
- Specific target organ toxicity – repeated exposure
- Aspiration hazard

2. Physical Hazard Classes:

- Explosives
- Flammable gases
- Flammable aerosols
- Flammable liquids
- Flammable solids
- Oxidizing gases
- Oxidizing liquids
- Oxidizing solids
- Self-reactive substances and mixtures
- Pyrophoric liquids
- Pyrophoric solids
- Self-heating substances and mixtures
- Organic peroxides
- Corrosive to metals
- Gases under pressure
- Substances and mixtures which, contact with water, emit flammable gases

3. Environmental Hazard Class

- Hazardous to aquatic environment











MSDS to SDS:









Material Safety Data Sheet Requirements (MSDS) require nine pieces of information whereas Safety Data Sheets (SDS) have 16 requirements.

1. Identification
2. Hazard identification
3. Composition information on ingredients
4. First aid measures
5. Fire-fighting measures
6. Accidental release measures
7. Handling and storage
8. Exposure controls/Personal protection
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicology information
12. Ecological information
13. Disposal considerations
14. Transport information
15. Regulatory information
16. Other information

Pictograms: A symbol is called a pictogram when it has a border as shown. GHS has nine pictograms [red border] used to classify and label chemicals. A label or SDS that is compliant with the United States Hazard Communication Standard (2012) may not be sufficient for compliance in Canada. The supplier must be compliant with the Canadian requirements. It is expected that a biohazard symbol will be introduced through provincial legislation.

WHMIS 1998 AND WHMIS 2015 Hazard Symbols/Pictograms

WHMIS 1998 Hazard Symbols	WHMIS 2015 Hazard Pictograms
 <p>Compressed Gas</p> <ul style="list-style-type: none"> Materials which are normally gaseous kept in a pressurized container Could explode due to pressure Could explode if heated or dropped Possible hazard from both the force of explosion and the release of contents 	 <p>The Gas Cylinder pictogram is used for the following classes and categories:</p> <ul style="list-style-type: none"> Gases under pressure (Compressed gas, Liquefied gas, Refrigerated liquefied gas, and Dissolved gas)
 <p>Flammable and Combustible</p> <ul style="list-style-type: none"> Materials which will continue to burn after being exposed to a flame or other ignition source May ignite spontaneously May be a material which will release flammable products if allowed to degrade or when exposed to water 	 <p>The Flame pictogram is used for the following classes and categories:</p> <ul style="list-style-type: none"> Flammable gases (Category 1) Flammable 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) Pyrophoric gases (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)
 <p>Oxidizing Material</p> <ul style="list-style-type: none"> Materials which can cause other materials to burn or support combustion Can cause skin or eye burns Increase fire and explosion hazard May cause combustibles to explode or react violently 	 <p>The Flame Over Circle pictogram is used for the following classes and categories:</p> <ul style="list-style-type: none"> Oxidizing gases (Category 1) Oxidizing liquids (Category 1, 2 and 3) Oxidizing solids (Category 1, 2 and 3)
 <p>Toxic: Immediate and Severe</p> <ul style="list-style-type: none"> Poisons/potentially fatal materials which cause immediate and severe harm May be fatal if ingested or inhaled May be absorbed through skin Small volumes have a toxic effect 	 <p>The Skull and Crossbones pictogram is used for the following classes and categories:</p> <ul style="list-style-type: none"> Acute toxicity - <ul style="list-style-type: none"> Oral (Category 1, 2 and 3) Dermal (Category 1, 2 and 3) Inhalation (Category 1, 2 and 3)
 <p>Toxic Long Term Concealed</p> <ul style="list-style-type: none"> Materials which have harmful effects after repeated exposures or over long periods of time May cause death or permanent injury May cause birth defects or sterility May cause cancer May be sensitizer causing allergies 	 <p>The Health Hazard pictogram is used for the following classes and categories:</p> <ul style="list-style-type: none"> 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)

WHMIS 1998 Hazard Symbols	WHMIS 2015 Hazard Pictograms
 <p>Biohazardous/Infectious</p> <ul style="list-style-type: none"> • Infectious agents or a biological toxin causing a serious disease or death • May cause anaphylactic shock • Includes viruses, yeasts, moulds, bacteria and parasites which affect humans • Includes fluids containing toxic products • Includes cellular components 	 <p>The Biohazardous Infectious Materials pictogram is used for the following classes and categories:</p> <ul style="list-style-type: none"> • Biohazardous Infectious Materials (Category 1) <p><i>This symbol is yet to be confirmed. It is expected that a biohazard symbol will be introduced through provincial legislation.</i></p>
 <p>Corrosive Materials</p> <ul style="list-style-type: none"> • Materials which react with metals and with living tissue • Eye and skin irritation on exposure • Severe burns/tissue damage on longer exposure • Lung damage if inhaled • May cause blindness if eyes contacted • Environmental damage from fumes 	 <p>The Corrosion pictogram is used for the following classes and categories:</p> <ul style="list-style-type: none"> • 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)
 <p>Dangerously Reactive</p> <ul style="list-style-type: none"> • Materials which may have unexpected reactions • May react with water • May be chemically unstable • May explode if exposed to shock or heat • May release toxic or flammable vapours • May vigorously polymerize • May burn unexpectedly 	 <p>The Exploding Bomb pictogram is used for the following classes and categories:</p> <ul style="list-style-type: none"> • Self-reactive substances and mixtures (Types A and B*) • Organic peroxides (Types A and B*)
	 <p>The Exclamation Mark pictogram is used for the following classes and categories:</p> <ul style="list-style-type: none"> • 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)
	 <p>Environment</p> <ul style="list-style-type: none"> • May cause damage to the aquatic environment

WHMIS 2015 & GHS Fast Facts: Quiz

Please complete this quiz and return it to your Manager for your HR file.

Name: _____ Date: _____

Position: _____ Department: _____

For each question below, circle the correct response.

Question #1: WHMIS has aligned with the worldwide hazard communication system known as GHS – the Globally Harmonized System of Classification and Labelling of Chemicals.

True False

Question #2: Employees do not require training on both WHMIS 1988 and WHMIS 2015 during the transition period.

True False

Question #3: The Globally Harmonized System (GHS) is an internationally consistent approach to classifying chemicals and communicating hazard information through labels and safety data sheets.

True False

Question #4: GHS is based on the same four building blocks of WHMIS and will provide improved protection for workers when handling hazardous material.

True False

Question #5: Material Safety Data Sheet Requirements (MSDS) require 4 (four) pieces of information whereas Safety Data Sheets (SDS) have 14 (fourteen) requirements.

True False

Question #6: Under GHS classification rules, which of the following is a major hazard group?

- a) Health Hazards
- b) Physical Hazards
- c) Environmental Hazards
- d) All of the above

Question #7: Under GHS, which of the following is NOT classified as a Health Hazard?

- a) Carcinogenicity
- b) Skin corrosion/irritation
- c) Explosives
- d) Germ cell mutagenicity

WHMIS 2015 Hazard Symbols/Pictograms: Quiz




Please complete this quiz and return it to your Manager for your HR file.

Name: _____ Date: _____

Position: _____ Department: _____

For each question below, circle the correct response.

Question #1: Which of the following is the pictogram for **Corrosion**?

- a)  b)  c) 


Question #2: Which of the following is the pictogram for **Environment**?

- a)  b)  c) 




Question #3: Which of the following is the pictogram for **Health Hazard**?

- a)  b)  c) 

Question #4: Which of the following is the pictogram for **Exploding Bomb**?

- a)  b)  c) 

Question #5: Which of the following pictograms is used to classify gases under pressure?

- a)  b)  c) 

Question #6: Which of the following pictograms is used to classify oxidizing gases?

- a)  b)  c) 