



TO: ALL DTE EMPLOYEES
DATE: October, 2018

WHMIS 2015 TRAINING

What is 'WHMIS 2015'?

There has been an update to the Workplace Hazardous Materials Information System. The United Nations developed a Globally Harmonized System (GHS) for classifying and labelling hazardous materials which Canada has adopted. 'WHMIS 2015' aligns Canada's workplace chemical hazard communication with that of our international trading partners who have also adopted this system. Previous symbols, MSDSs, classifications, etc. were based on WHMIS 1988 and have been phased out over the last few years. The deadline to fully implement and comply with the new system is December 1, 2018. Training is required before this time so that all members of the company are familiar and comfortable with the new information they will be seeing and working with.

Requirements for suppliers, employers and workers:

Suppliers (persons who, in the course of business, sell or import a hazardous product) are required to:

- Identify if their products are hazardous products
- Prepare labels and SDSs to provide to purchasers of hazardous products intended for use in a workplace

Employers are required to:

- educate and train workers on the hazards and safe use of hazardous products in the workplace
- ensure that hazardous products are properly labelled
- prepare workplace labels and SDSs (as necessary)
- ensure appropriate control measures are in place to protect the health and safety of workers

Workers are required to:

- participate in WHMIS 2015 training and education
- take necessary steps to protect themselves and their co-workers
- Participate in identifying and controlling hazards.
- Inform their immediate supervisor, manager, or safety representative in the event that they do not have the proper information on a controlled product, e.g. the SDS is missing, damaged or illegible.

Classification

Hazard groups

- WHMIS puts all hazardous substances into categories based on what type of harm they cause.
- The three hazard groups are:
 - o Physical (external harm)
 - o Health (internal harm)
 - o Environmental (damages surroundings)

Hazard classes

Within each hazard group there are many hazard classes where similar substances are grouped together based on the 'nature' of the hazard. For example 'gasses under pressure' is used for compressed gasses, liquefied gases, dissolved gases and refrigerated liquefied gases.

- Physical group divides into 19 classes as follows:

Flammable gases	Flammable aerosols
Gases under pressure	Flammable liquids
Flammable solids	Self-reactive substances and mixtures
Pyrophoric solids	Self-heating substances and mixtures
Pyrophoric liquids	Oxidizing solids
Pyrophoric gases	Oxidizing liquids
Substances/ mixtures in contact with water, that emit flammable gases	Oxidizing gases
Corrosive to metals	Organic peroxides
Simple asphyxiants	Combustible dusts
Physical hazards not otherwise classified	

- Health group divides into 12 classes as follows:

Acute toxicity	Skin corrosion/ irritation
Germ cell mutagenicity	Serious eye damage/ eye irritation
Respiratory or skin sensitization	Biohazardous infectious material
Specific target organ toxicity – single exposure	Specific target organ toxicity – repeated exposure
Health hazards not otherwise classified	Aspiration hazard
Carcinogenicity	Reproductive toxicity

- Environmental group divides into 3 classes as follows:

Hazardous to the aquatic environment (acute)	Hazardous to the ozone layer
Hazardous to the aquatic environment (chronic)	

Hazard category











- Substances within each class are further divided into hazard categories based on their level of danger or severity.
- The category levels are numbered rating of 1 to 4, 1 being the most dangerous. In some cases, this is divided further with a letter next to the number. 1a would be more dangerous than 1b or 1c.

Pictograms

- Visual images on the WHMIS label and Safety Data Sheets which show hazardous characteristics of a substance. They are based the substance's class and category. There are 10 pictograms total, which every worker should memorize.

- The Biohazard class is not part of GHS but was retained by Canadian law for worker safety. The pictogram symbol for biohazard is a circle instead of red diamond.
- A substance can have more than one hazardous characteristic, and will therefore use more than one pictogram
- A pictogram can represent more than one hazard class e.g. the corrosion pictogram can represent corrosion to metals or to skin.
- Two substances in the same group can have different pictograms depending on their severity. For example, acute toxicity will use a skull and crossbones for category 1-3, but will use an exclamation point pictogram for category 4 (less severe).

WHMIS 2015 PICTOGRAMS:

	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)		Exclamation mark (may cause less serious health effects or damage the ozone layer*)		Environment* (may cause damage to the aquatic environment)
	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.

Labels

- **Supplier label requirements:**
- **Product identifier**
 - Chemical name, trade name or assigned number of the product.
- **Pictograms**
 - One or more will be printed on the label if a pictogram has been assigned, graphically alerts users to the hazards of a product.
- **Signal word**
 - Danger! (more severe hazard) Warning! (less severe hazard)
- **Hazard statement**
 - Short phrase assigned to a hazard class and category. They indicate the nature of the hazard and may emphasize the degree of the severity. E.g. toxic if swallowed, causes serious eye irritation, etc.
- **Precautionary statements**
 - Describes recommended measures to minimize or prevent effects of exposure. E.g. keep away from heat, do not allow contact with water, keep container tightly closed, etc.
- **Supplemental information**
 - Additional information such as precautionary actions, routes of exposure, etc.
- **Supplier information**
 - Supplier address and contact information

WHMIS 2015 SUPPLIER LABEL EXAMPLE:

Product Identifier →

Pictograms →

Signal Words →



Hazard Statements →

Precautionary Statements →

Initial Supplier Identifier →

(Supplemental label information may be required)

Product K1 / Produit K1

Danger
Fatal if swallowed.
Causes skin irritation.

Danger
Mortel en cas d'ingestion.
Provoque une irritation cutanée.

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

Conseils :
Porter des gants de protection.
Se laver les mains soigneusement après manipulation.
Ne pas manger, boire ou fumer en manipulant ce produit.

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

Garder sous clef.
Éliminer le contenu/récipient conformément aux règlements locaux en vigueur.

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.

EN CAS DE CONTACT AVEC LA PEAU : Laver abondamment à l'eau.
En cas d'irritation cutanée : Demander un avis médical/consulter un médecin.
Enlever les vêtements contaminés et les laver avant réutilisation.
EN CAS D'INGESTION : Appeler immédiatement un CENTRE ANTIPOISON ou un médecin.
Rincer la bouche.

Compagnie XYZ, 123 rue Machin St, Mytown, ON, N0N 0N0 (123) 456-7890

Source: www.ccohs.ca

Workplace label:

- One that an employer produces for use within the workplace only. Used when a material is transferred into a container other than the labelled supplier container.
- Also used as a replacement for a damaged or missing supplier label.
- Workplace labels must have:
 - Product identifier (name)
 - Information about the safe handling of the product
 - Statement that an SDS is available
- Contact your supervisor or HR if you need a workplace label made

SDS (Safety Data Sheets)

- A Safety data sheet is a document that describes properties, health effects and precautions for the hazards of a product.
- An employer cannot use a hazardous product until its SDS is accessible in the workplace. All workers who may be exposed to a hazardous material must be able to readily access the SDS.
- All SDS follow a standardized 16 section format. All 16 sections must be present even if no information is contained.

- Overview of the 16 SDS sections:

SECTION 1	Identification	Identification of product and supplier, intended use of the product
SECTION 2	Hazard(s)	Label info is listed here including pictogram, signal words, precautionary and hazard statements
SECTION 3	Composition/ ingredients	Ingredients and their % concentration. CASRN= Chemical Abstract Registry Number. The CASRN of each ingredient will be listed and may be used in case of emergency.
SECTION 4	First Aid measures	Workers should be familiar with this section before using the substance in case there is an accident.
SECTION 5	Firefighting measures	Reflects any concerns from the burning of the product, and which extinguishing measure should be used.
SECTION 6	Accidental release	Personal and environmental precautions in case of spill, and containment/ clean up recommendations
SECTION 7	Handling and storage	Should be reviewed by worker before use, and to ensure proper storage is being followed.
SECTION 8	Exposure controls/ PPE	Personal Protective Equipment must be used as directed.
SECTION 9	Physical and chemical properties	Technical information that can reveal additional important safe usage information, example vapour density less than 1 means it will float in air, which could be a hazard for a worker up a ladder or on a higher floor.
SECTION 10	Stability and reactivity	Indicates conditions to avoid, other materials the product should not come in contact with, etc.
SECTION 11	Toxicological information	Includes any known legal limits of exposure, and how the substance causes illness
SECTION 12	Ecological information*	Indicates how the product would impact the environment
SECTION 13	Disposal considerations*	Should be reviewed along with local laws to prevent hazards to waste disposal workers, the general public, and the environment
SECTION 14	Transport information*	Legal requirements for transportation. May include US DOT symbols.
SECTION 15	Regulatory information*	Other laws that apply which are not found elsewhere in the SDS
SECTION 16	Other information	Includes the revision date for the SDS and may repeat contact information from Section 1 to indicate how to obtain a current copy of the SDS.

- * details not required by Canadian legislation. SDS sections may be blank.

- As a reminder, there are currently 2 SDS binders available for reference by workers, (1 at the back parts counter, 1 near the shop first aid kit). SDSs can also be accessed using the internet on any work computer or smart phone by simply searching the product name.