W.H.M.I.S.

What you will learn about WHMIS!

1. **What's different about 'WHMIS 2015'** with the introduction of the new Globally Harmonized System for classification and labelling of chemicals (GHS)

2. Identify the **3 key elements of WHMIS** that are used to provide information to employers and workers

3. **Recognize the symbols** for hazardous materials which may be found in the workplace

4. Learn **where to find more information** about:
   - hazardous materials in your workplace
   - how to protect yourself when using hazardous materials

Workplace **H**azardous **M**aterials **I**nformation **S**ystem

In Canada, beginning in 2015 we began implementing the **Globally Harmonized System for classification and labelling of chemicals (GHS)** .

This new system is called... WHMIS 2015

You may still see pieces of the WHMIS 1988 system until the WHMIS 2015 is fully implemented over the next couple years.

… developed through consultation with industry, labor and government (1988) to help eliminate injuries and illnesses caused by hazardous materials.

WHMIS 2015: What has changed?

The way we label products and the pictures we use are different in the WHMIS 2015 system

Also, in 2015…

the Controlled Products Regulations (CPR) was replaced by **Hazardous Products Regulations (HPR)**

WHMIS 1988 labels and hazard symbols are being phased out as we transfer fully to the WHMIS 2015 system by Dec 2018

The 3 Key Elements of WHMIS:

Labels

- Provide workers with basic information on the product and it's main hazards

Safety Data Sheets

- Available for each chemical and biological product, contains in-depth technical and precautionary information

Worker Education

- Aimed at teaching employees about hazards and safe work procedures
- Refresher training is required on annual basis

All workers have the "Right to Know" about the hazards they work with and how to protect themselves

WHMIS: What does it cover?

WHMIS applies to all Hazardous Products, which include most materials used in the workplace

The following products are not covered and have partial or complete exemptions from WHMIS as they are covered by other regulations:

- cosmetics
- drugs
- explosives
- radioactive materials

Although drugs are exempt from WHMIS as they are regulated by the Food & Drug Act; we do have MSDS for the Cytotoxic Drugs being used at TOH and QCH in the Link2MSDS System.

Remember the importance of:
Labels
Safety Data Sheets
and Worker Education

They are there to keep us all safe!

Next section: Labels

Labels - What's new?

There are two types of labels used in the workplace
Both have changed and look different with the new WHMIS 2015 system

Symbols are now Pictograms

Supplier Labels
no longer have a hatched border

Labels – What do you need to know?

Click on each tab to learn more

- Overview
- Supplier Labels
- Supplier label examples
- Workplace Labels
- Workplace label examples

Introduction:

Labels are used to alert employers and workers to the hazards associated with a product

There are two types of labels used in the workplace:

1. Supplier Labels
2. Workplace Labels

Supplier labels-overview (Slide Layer)

Labels – What do you need to know?

Click on each tab to learn more

- Overview
- Supplier Labels
- Supplier label examples
- Workplace Labels
- Workplace label examples

Supplier Labels

Supplier Labels are placed on all controlled products sold to the workplace.

In the WHMIS 2015 system:

- ✓ Supplier labels must be in English and French.
- ✓ Include the following information grouped together:
  - the pictogram(s),
  - signal word and
  - hazard statement(s)
- ✓ Include a reference to the Safety Data Sheet (if available)

Signal words will describe the severity of a hazard:

Danger: For more severe hazards
Warning: For less severe hazards
Note: If there is no significant hazard, a signal word won't be used

Supplier Label Examples (Slide Layer)

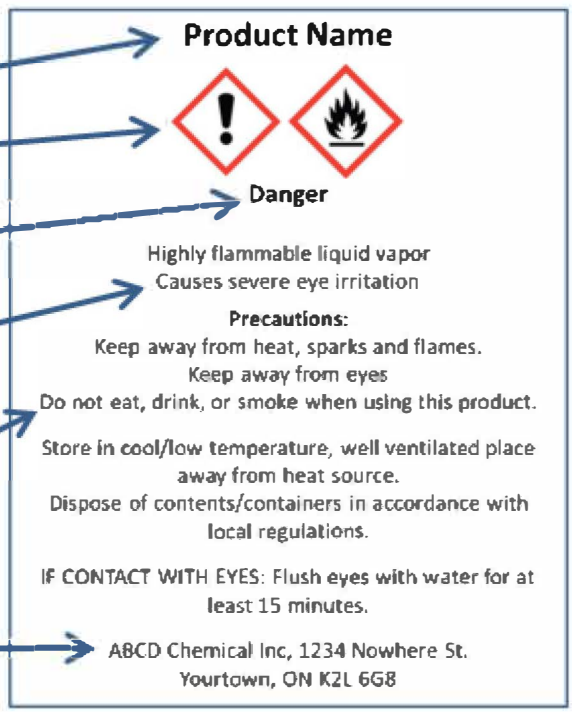
Labels – What do you need to know?

Click on each tab to learn more

- Overview
- Supplier Labels
- Supplier label examples
- Workplace Labels
- Workplace label examples

Supplier Labels

1. Product Identifier
2. Hazard Pictograms
3. Signal Words (NEW)
4. Hazard Statements
5. Precautionary Statements
6. Supplier Identifier



Workplace Labels (Slide Layer)

Labels – What do you need to know?

Clic on tab to ear e

- Overview
- Supplier Labels
- Supplier label examples
- Workplace Labels
- Workplace label examples

Workplace Labels

These are used when a product is:

- Made in the workplace
- Is transferred from the original supplier container into a workplace container
- When a supplier label becomes illegible or removed

Workplace labels are a simpler version of the supplier label and must include the following information <u>at a minimum:</u>

- Product identifier
- Safe handling procedures
- Safety Data Sheet statement

Workplace Label Examples(Slide Layer)

Labels – What do you need to know?

Click on each tab to learn more

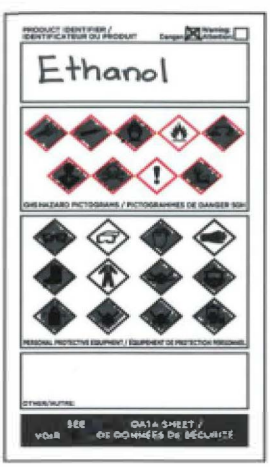
- Overview
- Supplier Labels
- Supplier label examples
- Workplace Labels
- Workplace label examples

Workplace Labels Images

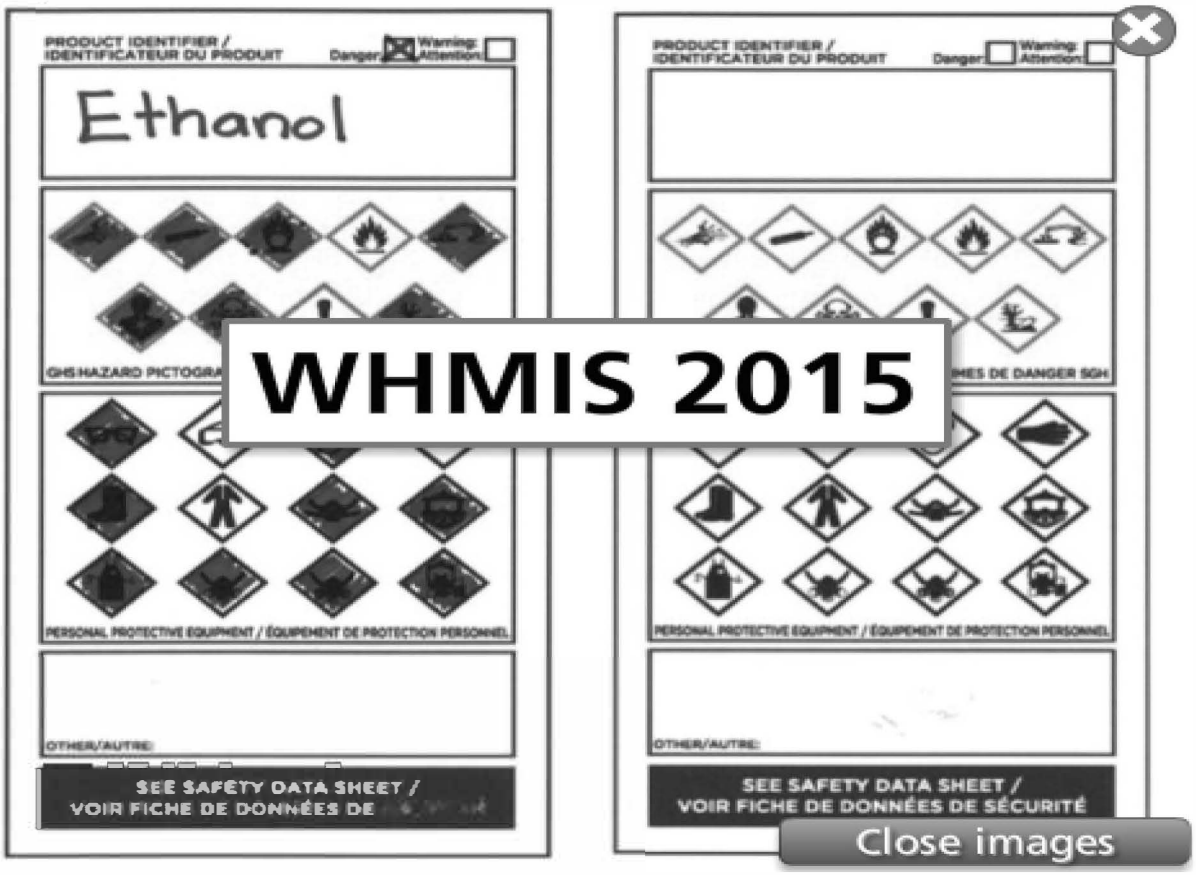
Click an image to enlarge

WHMIS 1988

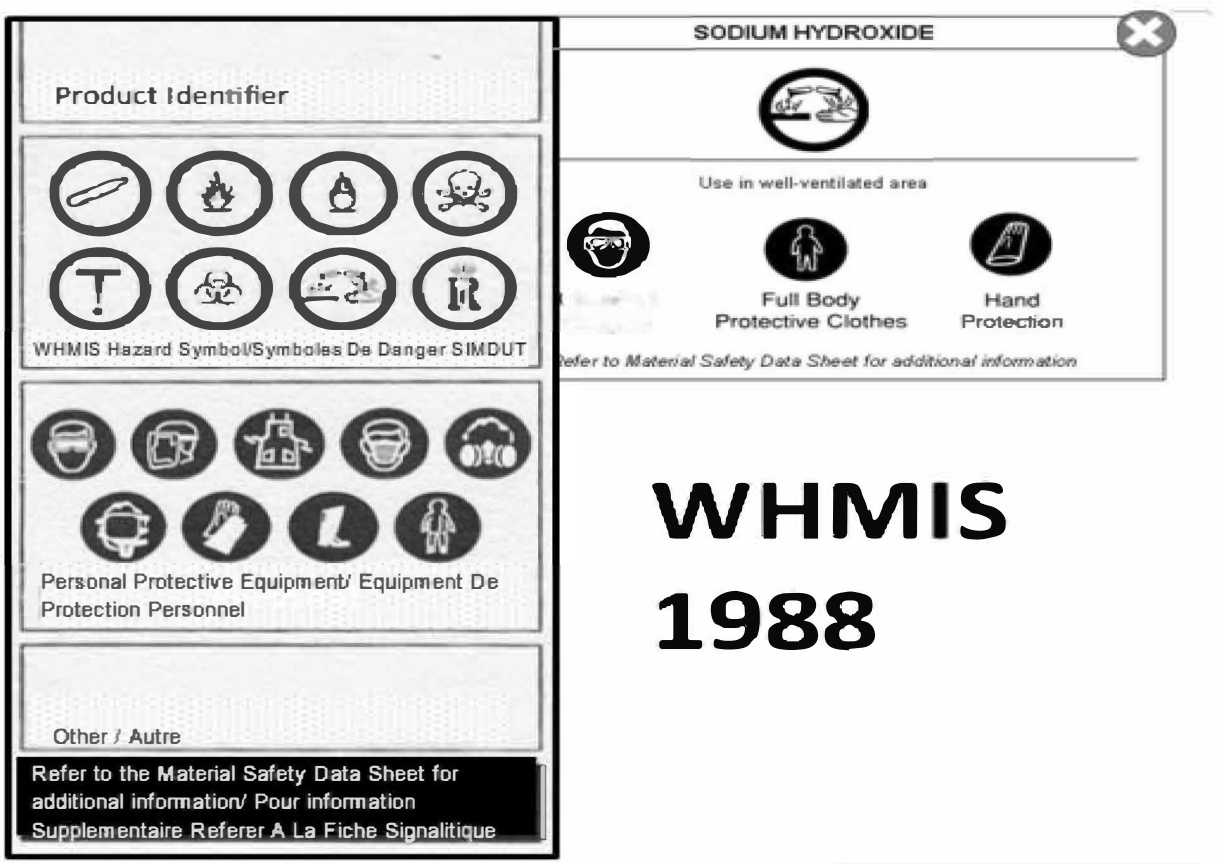
WHMIS 2015



Workplace Labels examples WHMIS 2015 Enlarged



Workplace Labels Examples – WHMIS 1988 Enlarged



Do you use workplace labels or know where to find them in your area?

Talk to your manager or colleagues if you don't know the answer to this question.

Next Section:
WHMIS Pictograms

WHMIS Pictograms

In WHMIS 2015, the symbols look different and they are known as WHMIS Pictograms.

- Nine pictograms will be used in identifying hazards of ALL Hazardous Products
- Each Hazardous Product will have at least one pictogram, and often multiple pictograms, to identify the hazards associated with it

Purpose:
Help identify the chemical or biological hazards of a product

They do so with pictures, not words, thereby breaking down language and literacy barriers

Must be on Supplier and Workplace labels at all times

Hazard Pictograms

Click on each image to learn more about that pictogram and how it is used

Once you have viewed all pictograms the « Next button » will work

Hazard Pictograms: Physical Hazards

Flame

This symbol indicates:

- Flammables (gases, aerosols, liquids, solids)
- Pyrophoric (liquids, solids gases)
- Self-heating substances and mixtures
- Substances and mixtures which, in contact with water, emits flammable gas
- Self-reactive substances and mixtures
- Organic peroxides

Previously:

Class B: Flammable & Combustible Material (ethanol (e.g. isopropyl alcohol), spray paints, propane, toluene)

Materials which will ignite and continue to burn if exposed to a flame or ignition source or may ignite spontaneously. Flammable materials will burn or catch fire easily at normal temperatures while combustible materials must usually be heated before they will catch fire.

?

Gas Cylinder

This symbol indicates:

- Gas under pressure

Material is a gas at normal room temperature and pressure but is kept in a pressurized container. The container can explode or become a projectile if ruptured (e.g. dropped or damaged). The release of the contents and the force of explosion or projectile are both hazards.

Previously:

Class A: Compressed Gas :
(oxygen, etheylene oxide, nitrous oxide, welding gases, fire extinguishers)

?

Exploding Bomb

This symbol indicates:

- Self-reactive substances and mixtures
- Organic peroxides

Unstable materials tha may react violently, explode, decompose, or release a toxic gas when exposed to water, shock, light, heat, or a change in pressure or temperature.

Previously:

Class F: Dangerously Reactive Material:
(ethylene oxide, picric acid)

?

Flame Over Circle

This symbol indicates:

- Oxidizers (liquids, solids, gases)

Materials which may or may not burn on their own, but release oxygen or other oxidizing substance thereby causing or contributing to the combustion of other materials.

Previously:

Class C: Oxidizing Material :
(oxygen, organic peroxides, nitric acid, perchloric acid)

?

Corrosion

This symbol indicates:

- Skin corrosion / burns
- Serious eye damage
- Corrosive to metals

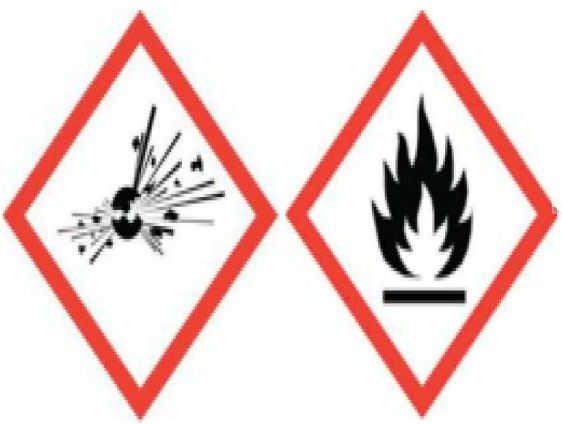
Materials which damage (corrode) metals and human or animal tissues (severe chemical burns to skin, eyes, or respiratory tract even causing blindness).

Previously:

Class E: Corrosive Material :

(strong acids such as sulfuric acid and bases such as bleach, chlorine hydrogen peroxide)

?



Exploding bomb plus flame

Both of these pictograms together indicates:

- Self-reactive substances and mixtures
- Organic peroxides

Corrosion

Corrosion Hazards can be Physical and/or Health Hazards.
See details under Physical Hazards.

Includes organisms (bacteria, viruses, fungi, parasites, prions) and the toxins they produce that have been shown to or suspected of causing disease and/or death in humans and animals; includes blood, body fluids, wound exudates, and tissues that may contain the organisms or toxins

Biohazardous infectious materials

Black circle containing a biohazard sign. This symbol indicates:

- These materials are organisms or the toxins they produce that can cause diseases in people or animals. Note: The U.S. has not adopted this symbol in their version of GHS but it will still be used in Canada.

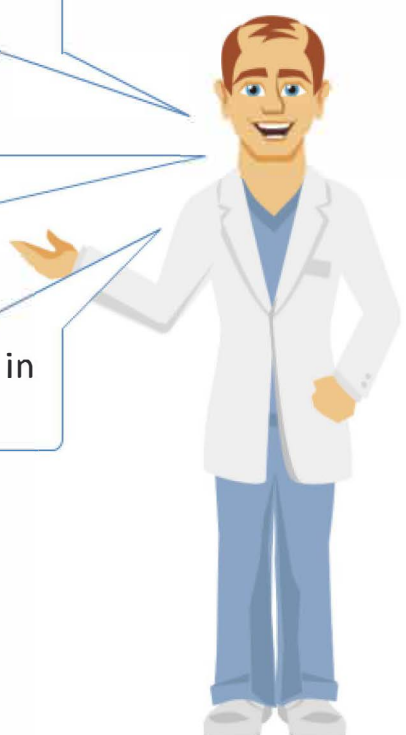
Previously:

Class D Division 3: Poisonous & Infectious Material: Biohazardous & Infectious :
(Hepatitis B virus, SARS, Aspergillus sp., C. difficile)

Have you seen these pictograms on products you use?

Once you have completed this course you can print out a poster with all of the pictograms for your area.

Just click on the 2nd launch link in ELM to see it.



Next Section: SDS

Safety Data Sheets (SDS)
are replacing
Material Safety Data Sheets (MSDS)

Both are intended to provide you and emergency personnel with the information and steps for safely handling or working with that controlled (hazardous) substance including:

- details about the product
- information on the potential health effects of exposure
- how to work safely with the product including :
  - ✓ storage
  - ✓ disposal
  - ✓ protective equipment
  - ✓ spill-handling procedures

Safety Data Sheet (SDS):
WHMIS 2015 - What's Different?

- The M is being "dropped" to be called Safety Data Sheets (SDSs).
- A SDS will contain **16 standardized** sections while the MSDS had **9 sections.**

The increased number of sections in the SDS makes it easier to find the specific safety details you need!

Safety Data Sheets (SDS)

Employers must ensure that workers have access to SDS for all Hazardous Products used in the workplace.

Where are they found on your Unit?

MSDS or SDS must be…

- located in an area that is readily accessible to all staff, at all times.
- available in the immediate area where the chemicals and biologicals are used.

How often are they updated?

Suppliers must ensure that the SDS is

- accurate at the time of sale
- updated by the supplier within 90 days when significant new information becomes available

Safety Data Sheets (SDS) – 16 Categories

	Safety Data Sheet (SDS) Headings	Includes elements such as:	MSDS headings
1	**Identification**	Product name, Company and recommended use	Preparation and Product Information
2	**Hazard identification**	GHS Signal words, Pictograms, Precautionary and Hazard statements	N/A
3	**Composition/information on ingredients**	Chemical name, synonyms and chemical ingredients	Hazardous Ingredients
4	**First-aid measures**	Response to Eye/skin contact, inhalation, ingestion, and notes for physicians.	First Aid Measures
5	**Fire-fighting measures**	Types of extinguishers, chemical risks, PPE and equipment needed	Fire or Explosion Hazard
6	**Accidental release measures**	Emergency instructions for containment and cleanup	Preventative Measures
7	**Handling and Storage**	Safe handling and safe storage recommendations	Preventative Measures
8	**Exposure controls/ personal protection**	PPE requirements, and instructions for safe use	Preventative Measures

Safety Data Sheets (SDS): 16 Categories (continued)

	Safety Data Sheet (SDS) Headings	Includes elements such as:	MSDS headings
9	**Physical and chemical properties**	Physical state, colour, flashpoint, odour, pH, flammability, melting point, etc.	Physical Data
10	**Stability and reactivity**	Identifies conditions to avoid and incompatible material.	Reactivity Data
11	**Toxicological information**	Identifies symptoms of exposure, toxic ingredients and risks of long term exposure	Toxicological Properties
12	**Ecological information**	Impact on the environment	N/A
13	**Disposal considerations**	How to dispose of unused product or container	Preventative Measures
14	**Transport information**	Precautions/steps for transport	Preventative Measures
15	**Regulatory information**	Identifies applicable federal or other regulations	N/A
16	**Other information**	Other classifications, date of issue, contact information	N/A

Do you know where the MSDS sheets are kept in your area?

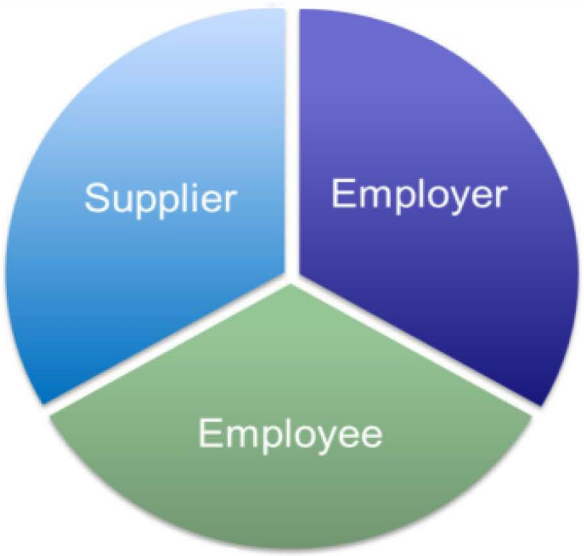
If you don't then ask your Manager or one of your colleagues

Next Section:
Protection and Responsibility

WHMIS : what is your responsibility?

All workers using or working in proximity to Hazardous Products must receive training.

The responsibility for WHMIS is shared by the:



6.1

Supplier Responsibilities:

1. Ensure proper classification of Hazardous Products.
2. Label all Hazardous Products shipped to the customers.
3. Provide accurate SDSs at the time of sale.
4. Update SDSs whenever new information becomes available.

Employer Responsibilities:

1. Label containers of Hazardous Products used in the workplace when:
   - a hazardous product is decanted into another container
   - a hazardous product is made and used in the workplace
   - a supplier label becomes lost or illegible
2. Provide SDSs to Employees
3. Provide training for employees
4. Review training program annually

Employee's Responsibilities:

1. Participate in required and annual training
2. Ensure hazardous products are labelled appropriately. (e.g. if a label falls off or becomes illegible, you must affix a workplace label)
3. Follow safe work procedures
4. Report deficiencies to your Manager or Supervisor.

   They can include
   - Missing SDSs
   - Defective or missing labels
   - Defective or lack of personal protective equipment

Personal Protective Equipment (PPE)

The Personal Protective Equipment (PPE) you require depends on the Hazardous Product you are using.

If you're not sure what PPE to wear:

- Check the FS
- Ask your Manager or Supervisor

- Respirators (e.g. N95 or cartridge) require fit testing

TOH Fit testing? OHRI Fit testing?

6.2

TOH Fit testing?

To book fit testing at TOH, please use the booking calendar. https://www.appointment.com/toh

OHRI Fit testing?

To book fit testing at OHRI, please contact the OHRI Research Safety Office.
OHRIresearchsafety@ohri.ca

What PPE do I need?

Understanding routes of entry

Working with Hazardous Products involves the risk of exposure. The risk is dependent upon the types of effects and the various routes of entry.

Hazardous Products can enter your body through:

- **Ingestion:** by mouth
- **Inhalation:** by breathing
- **Absorption**: through the skin, eyes or mucous membranes
- **Injection:** puncture from needles, syringes, blades or other contaminated sharp objects

Ingestion

Remember to always wash your hands after handling. Hazardous products even when wearing gloves!
Never eat or drink in patient care or laboratory areas!

Inhalation

Inhalation can occur under multiple forms: Fumes, dust, vapours or mists. Be Fit tested for an appropriate respirator when required. Whenever appropriate, always work with chemicals in an operational chemical fume hood and always work with biologicals in a certified Biosafety cabinet (BSC).

Absorption

It's important to cover any scrapes, cuts or abrasions before donning your Personal Protective Equipment (PPE) (e.g. cover wounds with band aids).
PPE such as gloves, lab coats, safety glasses or face shield should be worn to prevent absorption.

Injection

It's important to get the proper training, follow the policies, procedures and the Standard Operating Procedures (SOPs) on sharps.

The Ottawa Hospital | L'Hôpital d'Ottawa

Occupational Health & Safety:

Civic	14161
General	78391
Riverside	88250

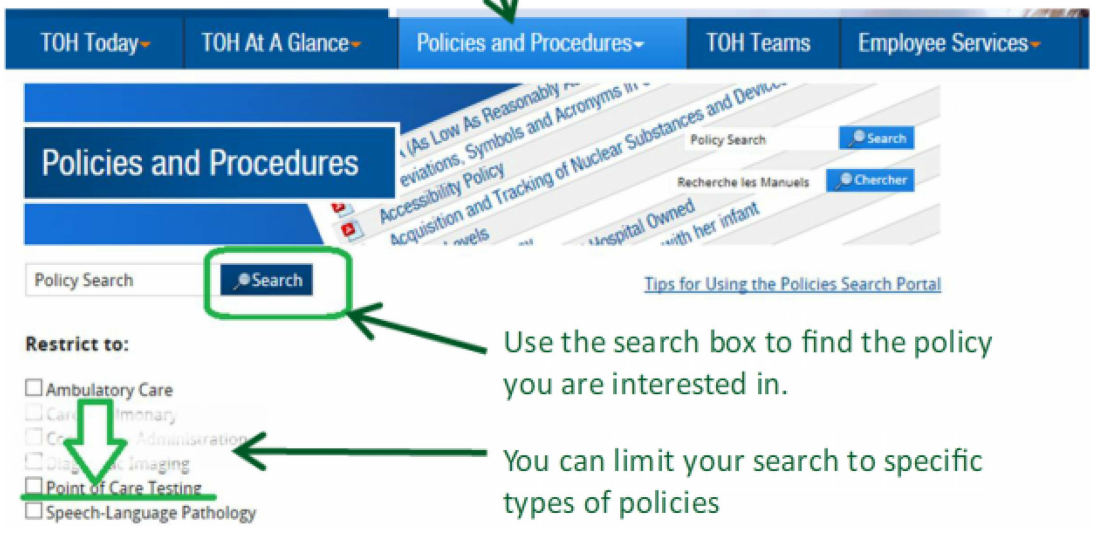
Santé et Sécurité au travail:

Campus Civic	14161
Campus Général	78391
Campus Riverside	88250

Compassionate People. World-Class Care. Des gens de compassion. Des soins de calibre mondial.

Policies & Procedures

Find Policies or Procedures on my Hospital under the 'Policies and Procedures' tab.



Use the search box to find the policy you are interested in.

You can limit your search to specific types of policies

WHMIS Pictograms

Workplace Hazardous Materials Information System

2015

Flame

Flammable
Self-Reactive
Pyrophoric
Self-Heating
In Contact with Water, Emits Flammable Gases
Organic Peroxide

Flame over Circle

Oxidizer

Exploding Bomb

Explosive*
Self-Reactive (severe)
Organic Peroxide (severe)

Skull and Crossbones

Acute Toxicity (fatal or toxic)

Gas Cylinder

Gas Under Pressure

Corrosion

Serious Eye Damage
Skin Corrosion
Corrosive to Metals

Biohazardous

Biohazardous Infectious Materials

Exclamation Mark

Irritation (skin or eyes)
Skin Sensitization
Acute Toxicity (harmful)
Specific Target Organ Toxicity (drowsiness or dizziness, or respiratory irritation)
Hazardous to the Ozone Layer*

Health Hazard

Carcinogenicity
Respiratory Sensitization
Reproductive Toxicity
Specific Target Organ Toxicity
Germ Cell Mutagenicity
Aspiration Hazard

Environment

Aquatic Toxicity*

A GHS pictogram appropriate for the hazard

Physical Hazards Not Otherwise Classified
Health Hazards Not Otherwise Classified

NOTE: No pictogram is assigned to some hazard classes e.g., Combustible Dusts and Simple Asphyxiants, and some less severe hazard categories.

*Not required by WHMIS, but may be used.

CCOHS.ca
Canadian Centre for Occupational Health and Safety
1-800-668-4284
WHMIS.org