## **WHMIS Pictograms**

## Workplace Hazardous Materials Information System (WHMIS)

Pictograms are images found on chemical labels and Safety Data Sheets, giving you hazard information about the chemicals you handle.

\*\*Notice that a chemical can have more than one pictogram and that not all chemical situations require a pictogram\*\*

Hazard Pictogram	Classification Description	Example of Risks	Examples of Safe Handling or Storage Procedures
Exploding Bomb	<ul> <li>Self-reactive substances and mixtures.</li> <li>Organic peroxide.</li> </ul>	Materials which may explode due to reaction to fire, shock, friction, heat, puncture, temperature changes or incompatible material.	<ul> <li>Handle with care, avoiding vibration, shocks and sudden temperature change.</li> <li>Avoid prolonged storage and storing in large quantities, if possible.</li> <li>Store in appropriate containers.</li> <li>Ensure storage containers are sealed.</li> <li>Store and work in designated areas.</li> <li>Understand the explosion potential and the specific type of sensitive handling needed.</li> <li>Bond and ground container and receiving equipment as required.</li> </ul>
Flame	<ul> <li>Flammable Gases, Liquids and Solids.</li> <li>Aerosols.</li> <li>Pyrophoric Liquid and Solids.</li> <li>Self-Heating Substances and Mixtures.</li> <li>Substances and Mixtures which, in contact with water, emit flammable gases.</li> <li>Self-Reactive Substances and Mixtures.</li> <li>Organic Peroxide.</li> <li>Chemicals under Pressure.</li> </ul>	May cause fire or explosion.  It may ignite if exposed to heat, sparks, friction, flames, or incompatible material.  Materials may continue to burn after exposure to a flame or other ignition source.	<ul> <li>Store in designated flammable storage equipment.</li> <li>Avoid heat, hot surfaces, sparks, open flames, and other ignition sources.</li> <li>Store in a well-ventilated, cool place.</li> <li>Understand the difference between flammable and combustible storage requirements.</li> <li>Understand if protective equipment is needed, e.G. Static dissipating shoes, spark-proof flashlights, etc.</li> </ul>
Flame Over Circle	Oxidizing Solids, Liq- uids and Gases.	Materials which can cause other materials to burn or support combustion  It may cause fire or explosion.  It may enhance the combustion of other materials.	<ul> <li>Store in areas away from combustibles in well-ventilated, cool place.</li> <li>Avoid storing with flammables - read the SDS carefully to understand what is allowed.</li> <li>Store in proper containers which will not rust or oxidize.</li> <li>Keep away from heat, hot surfaces, open flames and sparks.</li> <li>Keep valves and fittings free from oil and grease.</li> </ul>
Gas Cylinder	<ul> <li>Gases Under Pressure.</li> <li>Chemicals Under Pressure.</li> </ul>	Materials may explode if heated, punctured or dropped.  May cause cryogenic burns or injury.  Leaks from cylinders may expel toxic gases quickly and be flammable, change temperature at the point of leakage, e.g. frostbite, or displace oxygen.	<ul> <li>Ensure the container is always secured.</li> <li>Store in appropriate designated areas and apparatus designed for cylinders, such as cages and chains.</li> <li>Do not drop or allow to fall.</li> <li>Protect from mechanical damage.</li> <li>Post warning signs as needed.</li> </ul>
Health Hazard	<ul> <li>Carcinogenicity.</li> <li>Germ Cell Mutagenicity.</li> <li>Reproductive Toxicity.</li> <li>Respiratory or Skin Sensitization.</li> <li>Specific Target Organ Toxicity - Single or Repeated Exposure.</li> <li>Aspiration Hazard.</li> </ul>	Materials which can cause or are suspected of causing serious long-term health effects.	<ul> <li>Work in a well-ventilated area.</li> <li>Work with the smallest amount possible.</li> <li>Store in required designated areas.</li> <li>Avoid direct contact with skin.</li> <li>Restrict access to authorized personnel only.</li> <li>Obtain and learn secial instructions/controls before use.</li> <li>Avoid repeated and prolonged exposure situations.</li> </ul>
Exclamation Mark	<ul> <li>Skin Corrosion or Irritation</li> <li>Serious Eye Damage/ Eye Irritation</li> <li>Respiratory or Skin Sensitizer</li> <li>Acute Toxicity - Oral, dermal and Inhalation</li> <li>Specific Target Organ Toxicity - Single Exposure</li> </ul>	Poisonous materials can cause immediate and severe harm.	<ul> <li>Avoid breathing dust, fumes, gas, mists or vapours; avoid contact with skin or eyes.</li> <li>Wear required personal protective equipment.</li> <li>Work in well-ventilated areas.</li> <li>Wash potentially exposed body parts thoroughly after handling.</li> </ul>
Skull and Crossbones	Acute Toxicity (Oral, Dermal and Inhalation).	Materials may be toxic or fatal even in small quantities.	Avoid breathing fumes and vapours and skin contact.  • Wear the required personal protective equipment.  • Work in well-ventilated areas.  • Wash hands thoroughly after handling.  • Avoid storing large quantities.  • Avoid storing above eye level.

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Corrosion	<ul> <li>Corrosive to Metals.</li> <li>Serious eye damage/ eye irritation.</li> <li>Skin corrosion/ irritation - Skin corrosion.</li> </ul>	Materials can react with metals, cause irreversible skin damage and vision loss.  It may cause container or storage shelves to weaken, resulting in spills.	<ul> <li>Use appropriate storage containers and ensure proper non-venting closures.</li> <li>Wear appropriate Personal Protective Equipment.</li> <li>Prevent skin contact. Do not get into the eyes.</li> <li>Some situations will require the installation of a plumbed-in emergency eyewash and shower following a required standard, e.g. ANSI Z358.1-2014 (R2020).</li> </ul>
Biohazardous Infectious Materials	Biohazardous     Infectious Materials.	Infectious agents or biological toxin causing serious disease or death.  It may cause anaphylactic shock.  Includes exposure to viruses, yeasts, moulds, bacteria, and parasites, which may cause disease in animals or humans.	Follow safe laboratory practices and procedures.  • Understand clean-up and decontamination procedures.  • Have sharps kits available. Limit access and store in specially designated areas.  • Use engineering controls where appropriate.
Environment (Not mandatory)	Aquatic Toxicity*	May be harmful to aquatic life or cause long-lasting effects to the aquatic environment	<ul> <li>Avoid release to the natural environment.</li> <li>Use according to directions.</li> <li>Dispose of following all regulatory environmental requirements and obligations.</li> <li>Wear Personal Protective Equipment appropriate for biohazards as required.</li> </ul>

<sup>\*</sup>Note that the environment pictogram is not mandatory under WHMIS - its use is voluntary.

<sup>\*\*</sup>There are some hazardous products that meet the criteria for the hazard class or category; however, these classes and categories do not require a pictogram. A list of these classes and categories can be found on the <u>CCOHS website</u>. It must, however, be noted that the product label and the SDS's Section 2 (Hazard Identification) still require the signal word, hazard statement(s), and the other required label elements.