

# SAFE WORK PRACTICES

## CHEMICAL HAZARDS (WHMIS 2015 & TDG) *Page 1 of 3*

*\*This information does not take precedence over OH&S. All employees should be familiar with the Saskatchewan Employment Act and the OH&S Regulations.*

**General:** There are two hazard groups

1. Physical Hazards: Based on the physical or chemical properties of the product – such as flammability, reactivity, or corrosivity to metals
2. Health Hazards: Based on the ability of the product to cause a health effect – such as eye irritation, respiratory sensitization or carcinogenicity.

Each group is made up of a number of classes, categories, and sub-categories. Products may belong to one or more classes, depending on their hazards.

**Physical Hazard Group** – Criteria for classifying chemicals have been developed for the following physical hazard classes:

- Combustible dusts
- Corrosive to Metals
- Gasses Under Pressure
- Flammable Aerosols
- Flammable Gases
- Flammable Liquids
- Flammable Solids
- Pyrophoric Gases
- Pyrophoric Liquids
- Pyrophoric Solids
- Self heating Substances & Mixtures
- Substances & Mixtures which, in contact with water, emit Flammable Gasses
- Oxidizing Gases
- Oxidizing Liquids
- Oxidizing Solids
- Self-Reactive Substances & Mixtures
- Organic Peroxides
- Simple Asphyxiants
- Physical Hazards not otherwise classified

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**Health Hazard Group** – Criteria for classifying chemicals have been developed for the following health hazards classes:

- Aspiration Hazard
- Carcinogenicity
- Germ Cell Mutagenicity
- Reproductive Toxicity
- Specific target organ Toxicity – Repeated Exposure
- Specific target organ Toxicity – Single Exposure
- Serious Eye Damage/Eye Irritation
- Skin Corrosion/Irritation
- Acute Toxicity
- Biohazardous Infectious Materials
- Health Hazards not otherwise classified

When handling chemicals, Do the Following:

- Keep material contained, away from other chemicals & away from any ignition source
- Avoid any contact, wear personal protective equipment
- Know the properties of the chemical, and clean up spills.

**WHMIS: Workplace Hazardous Material Information System 2015** is a national hazard communication system that provides information on the safe use of hazardous products that incorporate **GHS (Globally Harmonized System)** elements that have resulted in new standardized:

- Classification Criteria
- Label Requirements
- Safety Data Sheets (SDS) Requirements

The supplier must provide labels & safety data sheets to customers

The employer must ensure that all hazardous products are properly labeled & make up-to-date SDS's readily available to workers

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The employer must provide worker education & training

The employer must ensure appropriate control measures to protect the health & safety of its workers are in place.

Workers participate in WHMIS 2015 Training programs, take necessary steps to protect themselves & their co-workers, and participate in identifying & controlling hazards.

### The 9 WHMIS Symbols Are:

	<b>Exploding bomb</b> (for explosion or reactivity hazards)		<b>Flame</b> (for fire hazards)		<b>Flame over circle</b> (for oxidizing hazards)
	<b>Gas cylinder</b> (for gases under pressure)		<b>Corrosion</b> (for corrosive damage to metals, as well as skin, eyes)		<b>Skull and Crossbones</b> (can cause death or toxicity with short exposure to small amounts)
	<b>Health hazard</b> (may cause or suspected of causing serious health effects)		<b>Exclamation mark</b> (may cause less serious health effects or damage the ozone layer*)		<b>Environment*</b> (may cause damage to the aquatic environment)
	<b>Biohazardous Infectious Materials</b> (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.

**TDG:** The purpose of the **T**ransportation of **D**angerous **G**oods Regulations is to promote safety and to protect the public when dangerous goods are being transported by road, rail, air or ship.

TDG Regulations require that certain guidelines be followed when transporting any controlled product in amounts in excess of a specified maximum. Some of the products we must transport for use on job sites are covered by TDG regulations. Any employee who is in doubt about a product they are transporting should speak with the supervisor.