
Safety Resources

2019
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**1 Introduction**

Many countries have regulatory systems for chemical classification and hazard communication. In Canada, this system is called WHMIS (Workplace Hazardous Materials Information System). As of December 2018, WHMIS was updated to the Global Harmonized System (GHS) known in Canada as WHMIS 2015. From herein, the Canadian system of WHMIS 2015 implemented at the University of Saskatchewan will be referred to as WHMIS.

In Canada, if a workplace uses hazardous products, there must be a WHMIS program in place and workers must be knowledgeable about it.

Workers have the right to know about workplace hazards, including hazardous products, and how to control those hazards. WHMIS ensures that workers are informed about the hazardous products in the workplace and are trained to understand and work safely with these products. The key components of WHMIS are labels, safety data sheets (SDSs), and training/education for workers.

**1.1 What is covered by WHMIS?**

The *Hazardous Products Regulations* set out specific hazard classification criteria. If a product covered by the *Hazardous Products Act* meets the criteria to be included in a hazard class or category, it is considered to be a “hazardous product.” All hazardous products used in the workplace are covered by the WHMIS regulations, and a WHMIS program, including education and training, must be in place. The Safety Data Sheet is often the best way to determine if a product is a “hazardous product.”

The exclusions under WHMIS are:

- Explosives (as defined in the Explosives Act);
- Cosmetics, devices, drugs or foods (as defined in the Food and Drugs Act);
- Pest control products (as defined in the Pest Control Products Act);
- Consumer products (as defined in the Canada Consumer Product Safety Act);
- Wood or products made of wood;
- Nuclear substances (as defined in the Nuclear Safety and Control Act) that are radioactive;
- Hazardous waste; refers to a hazardous product that is sold for recycling or recovery, or is intended for disposal;
- Tobacco and tobacco products as defined in the Tobacco Act; and
- Manufactured articles.

The majority of these products are covered under other legislation and must comply with all labelling requirements of the applicable acts and regulations.

Employers are still responsible for providing education and training on health effects, safe use, and storage of these products excluded from WHMIS.
1.2 WHMIS Responsibilities

Under The Occupational Health and Safety (Workplace Hazardous Materials Information System) Regulations, all individuals working with or who may be exposed to or affected by hazardous products must receive training on the Workplace Hazardous Material Information System (WHMIS) to ensure they know:

- How to recognize hazardous products and identification of associated hazards;
- The content (and significance of) the information required on a supplier label, workplace label, and SDS;
- All necessary procedures for the safe use, storage, handling, procedures for fugitive emissions, and disposal of the hazardous product; and
- All necessary procedures to be followed in case of an emergency involving the hazardous product.

Employer Responsibilities

Every employer is required to:

- Ensure hazardous products are properly labeled. WHMIS labels alert the worker to the identity of the product, hazards, and precautionary measures;
- Ensure Safety Data Sheets (SDS) are available, current and readily available for all hazardous products being used and stored. Safety Data Sheets (SDS) provide detailed hazard and precautionary information; and
- Educate employees about WHMIS, hazardous products, and protective measures to work safely with the hazardous products.

Worker Responsibilities

Every worker is required to:

- Participate in WHMIS training and other health and safety training required for the job;
- Use WHMIS training and adhere to WHMIS requirements;
- Follow safe work procedures and rules;
- Know where SDSs are located in the workplace and how to use them;
- Inform the supervisor about any hazards found; and
- Inform the supervisor of WHMIS deficiencies, such as labels on containers that are no longer readable, damaged, or lost.

Workplace-specific training is the most important part of WHMIS training. The supervisor must provide workers with training on the specific hazardous materials they will be working with. The supervisor must also provide workers with safe handling instructions, required PPE, and the locations of all SDSs.
2 Hazard Classification

Classification is the determination of whether a product meets the criteria for inclusion in any of the WHMIS classes and is therefore subject to WHMIS requirements. WHMIS uses GHS standards and criteria to classify hazardous products.

In WHMIS, all hazardous products are classified into groups, classes, and categories.

<table>
<thead>
<tr>
<th>Hazard Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Groups</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Hazard Classes</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Hazard Categories</td>
</tr>
</tbody>
</table>

2.1 Hazard Groups

WHMIS contains two hazard groups:

- **Physical** – based on the physical and chemical properties of the product such as flammability, reactivity, or corrosivity.
- **Health** – based on the ability of the product to cause a health effect as such as irritation, sensitization, or carcinogenicity.

Although not required for use in Canada, the **Environmental** hazard group for hazardous products that are hazardous to the aquatic environment or hazardous to the ozone layer may be used.

2.2 Hazard Classes

Each hazard group is divided further into hazard classes. Under WHMIS, there are currently:

- 19 physical hazard classes; and
- 12 health hazard classes

There are also two environmental classes defined by GHS, but these classes are not mandatory in Canada.

The following table shows the hazard classes that belong under each hazard group.
### Table 1: Hazard Groups and Classes

<table>
<thead>
<tr>
<th>Physical Hazards Group</th>
<th>Health Hazards Group</th>
<th>Environmental Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Explosives</td>
<td>- Acute toxicity</td>
<td>- Hazardous to the aquatic environment</td>
</tr>
<tr>
<td>- Flammable gases</td>
<td>- Skin corrosion/irritation</td>
<td>- Hazardous to the ozone layer</td>
</tr>
<tr>
<td>- Flammable aerosols</td>
<td>- Serious eye damage/eye irritation</td>
<td></td>
</tr>
<tr>
<td>- Oxidizing gases</td>
<td>- Respiratory or skin sensitization</td>
<td></td>
</tr>
<tr>
<td>- Gases under pressure</td>
<td>- Germ cell mutagenicity</td>
<td></td>
</tr>
<tr>
<td>- Flammable liquids</td>
<td>- Carcinogenicity</td>
<td></td>
</tr>
<tr>
<td>- Flammable solids</td>
<td>- Reproductive toxicity</td>
<td></td>
</tr>
<tr>
<td>- Self-reactive substances and mixtures</td>
<td>- Specific target organ toxicity - single exposure</td>
<td></td>
</tr>
<tr>
<td>- Pyrophoric liquids</td>
<td>- Specific target organ toxicity - repeated exposure</td>
<td></td>
</tr>
<tr>
<td>- Pyrophoric solids</td>
<td>- Aspiration hazard</td>
<td></td>
</tr>
<tr>
<td>- Self-heating substances and mixtures</td>
<td>- Biohazardous infectious materials</td>
<td></td>
</tr>
<tr>
<td>- Substances and mixtures which, in contact with water, emit flammable gases</td>
<td>- Health hazards not otherwise classified</td>
<td></td>
</tr>
<tr>
<td>- Oxidizing liquids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Oxidizing solids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Organic peroxides</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Corrosive to metals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Combustible dusts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Simple asphyxiants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Pyrophoric gases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Physical hazards not otherwise classified</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.3 Hazard Categories

Each hazard class contains at least one category. The hazard categories are assigned a number (e.g. 1, 2, etc.) Categories may also be called "types." In a few cases, subcategories are also specified. Subcategories are identified with a number and a letter (e.g. 1A and 1B).

Some hazard classes have only one category (e.g. corrosive to metals), whereas others may have two categories (e.g. carcinogenicity (cancer) or three categories (e.g. oxidizing liquids). There are a few hazard classes with five or more categories (e.g. organic peroxides).
The category describes how hazardous the product is (that is, the severity of hazard).

- **Category 1 (in any hazard class) is always the greatest level of hazard.** If Category 1 is further divided, Category 1A within the same hazard class is a greater hazard than category 1B.
- **Category 2 within the same hazard class is more hazardous than category 3, and so on.**

There are a few exceptions to this rule. For example, for the Gases Under Pressure hazard class, the hazard categories include compressed gases, liquefied gases, refrigerated liquefied gases and dissolved gases. These classes relate to the physical state of the gas when packaged and do not describe the degree of hazard.

**Example: Application of Hazard Category**

“Flammable liquid” is a hazard class in the Physical Hazards group. Within the flammable liquid class there are four categories – each category is defined with different flash point ranges and/or boiling point cut-off values.

- Category 1: flash point <23 deg C and initial boiling point ≤35 deg C
- Category 2: flash point <23 deg C and initial boiling point >35 deg C
- Category 3: flash point ≥23 deg C and 60 deg C
- Category 4: flash point >60 deg C and 93 deg C

Category 1 has the lowest flash point and boiling point, making it the most hazardous category for handling and storage.

The objective is not to remember how many categories are in each hazard class. The key point to remember is that a **Category 1 in any hazard class has the greatest hazard.**

**3 Hazard Communication**

After the hazards of the hazardous products have been identified, assessed, and classified, the hazards must be communicated. WHMIS uses the following to communicate this information:

- Pictograms;
- Signal words;
- Hazard statements;
- Precautionary statements;
- Labels; and
- SDS’s.
3.1 Pictograms

Hazard pictograms are used to represent the hazard classes. Each hazard class or category has an assigned hazard pictogram. Most pictograms have a distinctive “square on point” border which is solid red in colour. Inside this border is a symbol that represents the potential hazard (e.g. fire, health hazard, corrosive, etc.). Together, the symbol and the border are referred to as a pictogram. The biohazardous infectious material symbol remains the same round black circle as previously used in WHMIS 1988.

The pictogram provides an image that immediately shows a worker what type of hazard is present. This way, even with a quick glance, someone can realize that, for example, the product is a danger to health, corrosive, or may be a fire hazard.

Each pictogram may be used for more than one hazard class.

Table 2: Pictograms – Names and Descriptions

<table>
<thead>
<tr>
<th>Pictogram(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploding bomb</td>
<td>(for explosive, unstable hazards)</td>
</tr>
<tr>
<td>Flame</td>
<td>(for flammable hazards)</td>
</tr>
<tr>
<td>Flame over circle</td>
<td>(for oxidizing hazards)</td>
</tr>
<tr>
<td>Gas cylinder</td>
<td>(for gases under pressure)</td>
</tr>
<tr>
<td>Corrosion</td>
<td>(for corrosive damage to materials as well as skin, eyes)</td>
</tr>
<tr>
<td>Skull and Crossbones</td>
<td>(very toxic material that can cause illness/death with small amounts and short exposure)</td>
</tr>
<tr>
<td>Health hazard</td>
<td>(for materials that can cause serious health effects)</td>
</tr>
<tr>
<td>Exclamation mark</td>
<td>(for materials that can cause health effects less serious than those using the health hazard pictogram)</td>
</tr>
<tr>
<td>Environment*</td>
<td>(for materials that can cause damage to the aquatic environment or the ozone layer)</td>
</tr>
</tbody>
</table>

* The GHS system also defined 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 SDSs. Including information about environmental hazards is allowed by WHMIS 2015.
WHMIS classes and categories that do not require a pictogram are:

- Flammable gases – Category 2;
- Flammable liquids – Category 4;
- Self-reactive substances and mixtures – Type G;
- Organic peroxides – Type G;
- Combustible dusts – Category 1;
- Simple Asphyxiants – Category 1;
- Serious eye damage/eye irritation – Eye Irritation – Category 2B; and
- Reproductive toxicity – Effects on or via lactation.

### 3.2 Signal Words

A **signal word** is part of the hazard communication system. A signal word is another prompt to alert workers about the degree of hazard associated with the product.

There are only two signal words; **“Danger”** or **“Warning”**. “Danger” is used for high risk hazards, while “Warning” is used for less severe hazards. If a signal word is assigned with a hazard class or category of a product, it must be shown on the label. Only one signal word should be used on a label.

Some of the hazard class/categories do not have a signal word assigned to them. If a hazardous product does not have a single word assigned, there is no signal word required for the label or safety data sheet.

### 3.3 Hazard Statements

Each hazard class and category has an assigned hazard statement(s). Hazard statements are brief, standardized sentences that describe the nature and degree(s) of hazard(s) of the product. The statements are short but describe the most significant hazard concerns with the product.

Hazard statements are assigned an alphanumeric code for reference purposes.

Examples of hazard statements include:

- Extremely flammable gas
- Contains gas under pressure; may explode if heated
- Fatal if inhaled
- Causes eye irritation
- May cause cancer
3.4 Precautionary Statements

Precautionary statements provide advice on how to minimize or prevent exposure to the product. These statements can include instructions about storage, handling, first aid, personal protective equipment and emergency measures. As with hazard statements, precautionary statements are standardized.

Examples of precautionary statements include:

- Keep container tightly closed;
- Wear protective gloves/protective clothing/eye protection/face protection;
- If exposed or concerned: Get medical advice/attention;
- Fight fire remotely due to the risk of explosion; and
- Protect from sunlight.

4 Labels

There are two different types of WHMIS labels; **supplier labels** and **workplace labels**.

4.1 Supplier Labels

Suppliers must provide labels on containers of all hazardous products sold or imported for use in the workplace.

Supplier labels are required to include the following information:

- Product identifier (product name);
- Hazard symbols;
- Risk phrases;
- Precautionary statements;
- First Aid measures;
- Reference to the SDS; and
- Supplier identifier (supplier name)

In Canada, all information on the supplier label must be provided in English and French.
4.2 Small Quantity Supplier Label

For hazardous products in a container less than 100 ml in volume, supplier labels must include the following information.

- Product Identifier/Name (matching the SDS product name);
- Supplier information;
- Hazard pictograms and; and
- Reference to SDS.

WHMIS information on supplier labels must be bilingual.

4.3 Workplace Label

As long as the hazardous product remains in its original container, with a supplier label on it, no additional labeling is required.

A workplace label is used, for example, when a product is transferred to a new container. A workplace label may also be used when a product is made and used on-site or when the supplier label is missing or not readable.
A workplace label must have:

1) Product identifier/name (matching the SDS product name);

2) Hazard pictograms;

3) Safe handling precautions including:
   a. Signal Word;
   b. Hazard Statements;
   c. Precautionary Statements; and
   d. All necessary information for the safe handling of the product including:
      i. Personal protective equipment required;
      ii. Emergency Measures; and
      iii. First Aid Measures.

4) A reference to the Safety Data Sheet

The format for workplace labels is flexible but they must be in the English language.

“Workplace label” means a legible label that discloses:

Figure 2: Example of workplace label
4.4 Labels for Piping Systems

Piping systems used to transfer a hazardous product must use colour-coded identifiers such as tags, placards, or other suitable means to let workers know what is contained in the pipes.

The information that would otherwise appear on a workplace label must be posted by the employer in a conspicuous spot near the product and in a format large enough to be easily ready by workers.

4.5 Special Cases for Labels

There are special cases and exemptions for some circumstances.

1) Variations on the supplier label apply for specific situations such as:

- **Bulk shipments** - A labelling exemption exists for products sold without packaging;
- **100 mL or less** - Exempt only from requirement to have precautionary or hazard statements on the label; and
- **3mL or less** - Where the label will interfere with normal use of the product, the product would be required to have a label that is durable and legible for transport and storage, but may be removable during use.

A WHMIS label can also be a mark, sign, stamp, sticker, seal, ticket, tag, or wrapper. It can be attached, imprinted, stenciled or embossed on the hazardous product or its container. Workers must be trained to be able to identify these alternate systems if they are used in the workplace.

2) There are two situations when a workplace label is not necessary. When a hazardous product is:

1. Poured into a container and it is going to be used immediately; or
2. "Under the control of the person who decanted it". For example, when the person who poured the product into another container will be the only person who will use it and the product will be used during one shift, a full workplace label may not be required.

**However**, the container must still be identified with the product identifier/name.

If the product is not used right away or if more than one person will be in control of the product, a full workplace label is required.

3) If a hazardous product is produced in a laboratory, the employer is exempt from the requirements of workplace labels if the hazardous product:
a) Is intended by the employer solely for the use, analysis, testing or evaluation for research and development;

b) Is not removed from the laboratory; and

c) Is clearly identified through a combination of any modes of identification visible to workers at the workplace and combined with worker education and training.

5 Safety Data Sheets

WHMIS requires suppliers to provide their customers with information about any material under the Hazardous Product Regulations. A Safety Data Sheet (SDS) is a technical document developed by the supplier that provides information specific to the hazardous material such as hazards, controls, safe handling and storage guidelines, and emergency procedures for the hazardous product, etc.

It is important for a worker to always be familiar with the hazards of a product before they start using it. One should look at an SDS, match the name of the product on the container to the one on the SDS, know the hazards, understand safe handling and storage instructions, as well as understand what to do in an emergency.

Think of an SDS as having four main purposes. It provides information on:

a. Identification: for the product and supplier.
b. Hazards: physical (e.g. fire and reactivity) and health.
c. Prevention: steps workers can take to work safely, reduce or prevent exposure, or in an emergency.
d. Response: appropriate responses in various situations (e.g., first-aid, fire, accidental release).

The SDS is critical for developing safe work procedures or standard operating procedures involving hazardous materials. One of the key elements for developing procedures is worker education and on-going training. Education and on-going training is intended as a proactive measure, administrative control and is directly related to the health and safety any individual potentially affected by a hazardous material.

The best practice of referring to the information contained in a SDS provides the opportunity for workers to exercise two of three basic rights in the workplace. The right to know and the right to participate. The right to refuse may indicate a lack of knowledge, training, competence or that the proper tools or personal protective equipment need improvement and are to be addressed by the supervisor in order to resolve the concern.
SDSs are required to be accurate at the time of sale. An SDS will be required to be updated when the supplier becomes aware of any "significant new data." The definition of "significant new data" is:

"New data regarding the hazard presented by a hazardous product that change its classification in a category or subcategory of a hazard class, or result in its classification in another hazard class, or change the ways to protect against the hazard presented by the hazardous product." (Source: Canada Gazette, Part II, Hazardous Products Regulations, Section 5.12 (1))

This definition means that an SDS must be updated when there is new information that changes how the hazardous product is classified, or when there are changes to the way workers will handle or store or protect themselves from the hazards of the product.

SDSs are required to be updated within 90 days of the supplier being aware of the new information. If a product is purchased within this 90 day time period, the supplier must provide information about the significant new data and the date on which it became available.

**SDSs may be stored in electronic format (computerize the SDS information) as long as:**

- All employees have access to, and are trained on, how to use the computer or device;
- The computer/devices are kept in working order; and
- The employer makes a hard copy of the SDS available to the employee or health and safety committee/representative upon request.

### 5.1 SDS Categories

There are sixteen (16) categories of information that must be present on an SDS in Canada.

1. Identification
2. Hazard identification (including classification and label text)
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. Toxicological information
12. Ecological considerations
13. Transport considerations
14. Regulatory considerations
15. Disposal considerations
16. Other information

**Table 3: Information on an SDS**

<table>
<thead>
<tr>
<th>SDS Section and Heading</th>
<th>Information Contained in Section</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Identification</td>
<td>- Product identifier (e.g., Product Name)</td>
</tr>
<tr>
<td></td>
<td>- Other means of identification</td>
</tr>
<tr>
<td></td>
<td>- Recommended use / Restrictions on use</td>
</tr>
<tr>
<td></td>
<td>- Canadian supplier information (Name, Address and Phone number)*</td>
</tr>
<tr>
<td></td>
<td>- Emergency telephone number and any restrictions on the use of that number, if applicable</td>
</tr>
<tr>
<td><strong>2</strong> Hazard Identification</td>
<td>- Hazard classification (class, category) of product</td>
</tr>
<tr>
<td></td>
<td>- Label elements - pictogram or the name of the pictogram, Signal word, Hazard</td>
</tr>
<tr>
<td></td>
<td>- statement(s), Precautionary statement(s)</td>
</tr>
<tr>
<td></td>
<td>- Other hazards which do not result in classification (e.g., molten material)</td>
</tr>
<tr>
<td><strong>3</strong> Composition / Information on Ingredients</td>
<td>- When a hazardous product is a material or substance:</td>
</tr>
<tr>
<td></td>
<td>- Chemical name</td>
</tr>
<tr>
<td></td>
<td>- Common name and synonyms</td>
</tr>
<tr>
<td></td>
<td>- Chemical Abstract Service (CAS) registry number and any unique identifiers</td>
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<tr>
<td></td>
<td>- Chemical name of impurities, stabilizing solvents and/or additives</td>
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<tr>
<td></td>
<td>- For each material or substance in a mixture that is classified in a health hazard class</td>
</tr>
<tr>
<td></td>
<td>- Chemical name</td>
</tr>
<tr>
<td></td>
<td>- Common name and synonyms</td>
</tr>
<tr>
<td></td>
<td>- CAS registry number and any unique identifiers</td>
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<td></td>
<td>- Concentration</td>
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</tbody>
</table>

**NOTE:** Confidential business information rules can apply
<table>
<thead>
<tr>
<th>4</th>
<th>First-aid Measures</th>
</tr>
</thead>
</table>
|  | • First-aid measures by route of exposure: Inhalation, Skin Contact, Eye Contact, Ingestion  
  Most important after symptoms: and effects (immediate and delayed effects)  
  • Immediate medical attention and special treatment, if necessary |
| 5 | Fire-fighting Measures |
|  | • Suitable extinguishing media  
  • Unsuitable extinguishing media  
  • Specific hazards arising from the hazardous product if involved in fire  
  • Special protective equipment and precautions for fire-fighters |
| 6 | Accidental Release Measures |
|  | • Personal precautions, protective equipment and emergency procedures  
  Methods and materials for containment and clean-up |
| 7 | Handling and Storage |
|  | • Precautions for safe handling  
  • Conditions for safe storage (including incompatible materials) |
| 8 | Exposure Controls/Personal Protection |
|  | • Control parameters (occupational exposure guidelines or biological exposure limits)  
  • Engineering controls  
  • Individual protection measures (e.g., personal protective equipment) (Eye/face, Skin,  
  Respiratory, general hygiene considerations) |
| 9 | Physical and Chemical Properties |
|  | • Appearance (physical state, colour, etc.)  
  • Odour  
  • Odour threshold  
  • pH  
  • Melting point/Freezing point  
  • Boiling point/Boiling range  
  • Flash point  
  • Evaporation rate  
  • Flammability (solid, gas)  
  • Upper/Lower flammable/explosive limit  
  • Vapour pressure  
  • Vapour density  
  • Relative density  
  • Solubility  
  • Partition coefficient - n-octanol/water  
  • Auto-ignition temperature  
  • Decomposition temperature  
  • Viscosity |
<table>
<thead>
<tr>
<th>Section</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Stability and Reactivity</td>
</tr>
<tr>
<td></td>
<td>- Reactivity</td>
</tr>
<tr>
<td></td>
<td>- Chemical stability</td>
</tr>
<tr>
<td></td>
<td>- Possibility of hazardous reactions</td>
</tr>
<tr>
<td></td>
<td>- Conditions to avoid</td>
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<tr>
<td></td>
<td>- Incompatible materials</td>
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<td></td>
<td>- Hazardous decomposition products</td>
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<td>- Concise but complete description of the various toxic health effects and the data used to identify those effects, including:</td>
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<tr>
<td></td>
<td>- Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)</td>
</tr>
<tr>
<td></td>
<td>- Symptoms related to the physical, chemical and toxicological characteristics</td>
</tr>
<tr>
<td></td>
<td>- Delayed and immediate effects, and chronic effects from short-term and long-term exposure</td>
</tr>
<tr>
<td></td>
<td>- Numerical measures of toxicity</td>
</tr>
<tr>
<td>11</td>
<td>Toxicological Information</td>
</tr>
<tr>
<td></td>
<td>- Ecotoxicity</td>
</tr>
<tr>
<td></td>
<td>- Persistence and degradability</td>
</tr>
<tr>
<td></td>
<td>- Bioaccumulative potential</td>
</tr>
<tr>
<td></td>
<td>- Mobility in soil</td>
</tr>
<tr>
<td></td>
<td>- Other adverse effect</td>
</tr>
<tr>
<td>12</td>
<td>Ecological Information**</td>
</tr>
<tr>
<td>13</td>
<td>Disposal Considerations**</td>
</tr>
<tr>
<td>14</td>
<td>Transport Information**</td>
</tr>
<tr>
<td></td>
<td>- UN number</td>
</tr>
<tr>
<td></td>
<td>- UN proper shipping name</td>
</tr>
<tr>
<td></td>
<td>- Transport hazard class(es)</td>
</tr>
<tr>
<td></td>
<td>- Packing group</td>
</tr>
<tr>
<td></td>
<td>- Environmental hazards</td>
</tr>
<tr>
<td></td>
<td>- Transport in bulk</td>
</tr>
<tr>
<td></td>
<td>- Special precautions</td>
</tr>
<tr>
<td>15</td>
<td><strong>Regulatory Information</strong></td>
</tr>
<tr>
<td>16</td>
<td><strong>Other Information</strong></td>
</tr>
</tbody>
</table>

** Sections 12 to 15 require the headings to be present, but under Canadian regulations, the supplier has the option to not provide information in these sections.
According to Saskatchewan OH&S legislation, the employer must:

- Inform workers about all hazard information concerning the specific hazardous products in the workplace;
- Educate and train workers to be able to apply this hazard information to protect their health & safety; and
- Periodically test worker’s knowledge in WHMIS.

A site-specific WHMIS program in the workplace must include:

- An inventory of all hazardous products at the workplace. Generally, this is kept in the front of an SDS binder or as a table of contents in an electronic folder. It is recommended upon biannual review, the inventory be updated and revised, if necessary.
- Education & training regarding the hazardous products specific to the workplace. It is essential workers receive training on the specific hazardous products they will be exposed to or come into contact with in the course of their daily work activities. While a generic WHMIS course will provide education for the worker about the general aspects of WHMIS, it cannot be substituted as site-specific WHMIS training as performed by the employer.
- Documented procedure(s) to be followed in case of an emergency with a hazardous product. These emergency procedures should stem directly from emergency response information as listed within a hazardous product’s SDS.
- A written test or sign-off of practical demonstration of site-specific WHMIS knowledge performed on a periodic basis. Documentation indicating employees have received site-specific knowledge on the hazardous products in their workplace and can demonstrate this through a written test or practical demonstration or other means helps an employer’s due diligence with The Right to Know.
- Appropriate SDSs must be readily available by electronic and/or print at all times. “Readily available” is defined as present in an appropriate place, accessible to a worker at all times, and in the form of: (a) a physical copy; or (b) an electronic copy.

What to include in workplace-specific training design

As a starting point, recall the four questions that test how well a worker understands the hazards of the product(s) they use. These questions help focus attention on the most important concepts, and will identify what workplace-specific training needs are required.

- What are the hazards of the product?
  - The worker must be able to read and understand the label and SDS as well as be aware of any possible harmful effects of the product used.
• How are workers protected from those hazards?
  – An understanding of the controls used in the workplace is necessary whether these controls are accomplished by engineering controls, administration, or by using personal protective equipment (PPE).

• What to do in case of an emergency?
  – Understanding the procedures to follow in the event of a spill, release, fire or poisoning involving a hazardous product is required. Included in the understanding is the use of personal protective equipment that may be necessary only in the case of emergency.

• Where can workers get hazard information?
  – Workers must demonstrate that they know how to get the information provided by the labels and SDSs. They should know about the supplier and workplace labels and other ways used to identify the products and what these labels mean. They must also know how to get the SDS (either by the binder location or by accessing electronically) so that they have a way to get information significant to their health and safety.

7 Appendix B – Glossary

A glossary of key terms related to WHMIS can be found at CCOHS Website under WHMIS – Glossary (http://www.ccohs.ca/oshanswers/chemicals/whmis_ghs/glossary/)