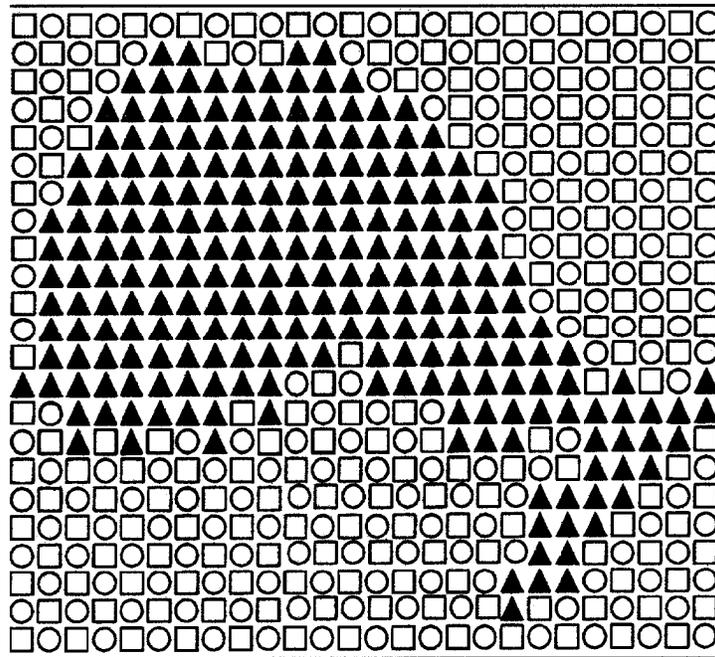

Workplace Hazardous Materials Information System (WHMIS): A Guide to the Legislation



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Information System (WHMIS):
A Guide to the Legislation**

August 2008

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Introduction

This guide is intended to give suppliers, employers, workers and regulators a basic understanding of WHMIS, and to direct readers to more comprehensive information, if needed.

Chapters 1 and 2 give an overview of WHMIS and the relevant legislation.

Chapter 3 outlines the federal WHMIS legislation and the duties of a supplier of hazardous materials intended for use in the workplace.

Chapter 4 is the focus of the guide. It explains Ontario's WHMIS legislation and the duties of an employer in charge of a worksite where hazardous materials are used.

Chapter 5 briefly describes the rights and responsibilities of the worker.

Chapter 6 deals with two specific applications of WHMIS, namely, the requirements for laboratories and for construction projects.

Chapter 7 describes how confidential business information is protected under WHMIS.

Chapter 8 compares WHMIS and the Transportation of Dangerous Goods legislation.

Chapter 9 explains the enforcement of the WHMIS legislation.

Chapter 10 is a collection of frequently asked questions and answers about WHMIS. The questions are based on actual inquiries made to the Ministry of Labour and are intended to illustrate specific workplace problems and solutions.

1. Overview of WHMIS

What is WHMIS?

WHMIS is a Canada-wide system designed to give employers and workers information about hazardous materials used in the workplace. Under WHMIS, there are three ways in which information on hazardous materials is to be provided:

1. labels on the containers of hazardous materials;
2. material safety data sheets to supplement the label with detailed hazard and precautionary information; and
3. worker education programs.

The supplier of the hazardous material provides the labels and material safety data sheets to the employer. The employer passes the information on to the worker and provides education programs.

Why was WHMIS developed?

The purpose of WHMIS is to give all working Canadians a uniform and appropriate quantity and quality of information about hazardous materials used in the workplace.

Many Canadian workers are exposed to hazardous materials on the job. In the past, information about these materials has often been incomplete, inconsistent or not available at all. This means that employers and workers were often unaware of the hazards of a material in the workplace, and of the necessary handling precautions. This lack of awareness can cause serious occupational illness and injury.

By setting standards for the type and amount of information to be given to the users of hazardous materials, it is expected that accidents and diseases caused by hazardous materials in the workplace will be reduced.

Who developed WHMIS?

WHMIS was developed jointly by labour, industry and federal, provincial and territorial governments.

To what workplaces does WHMIS apply?

In Ontario, WHMIS applies to all workplaces covered by the Occupational Health and Safety Act, and to all federal government workplaces.

To what hazardous materials does WHMIS apply?

WHMIS applies to hazardous materials known as **controlled products**. For more information on what a controlled product is, see Chapter 3, page 8, under Classification.

How is WHMIS put into effect across Canada?

WHMIS is put into effect by a combination of federal and provincial laws.

Who enforces the WHMIS legislation?

In Ontario, both the federal and provincial WHMIS legislation is enforced by provincial Ministry of Labour inspectors, except in federal government workplaces, where Human Resources and Skills Development Canada, Labour Program inspectors enforce the legislation.

2. The WHMIS Legislation

WHMIS is implemented by a combination of federal and provincial legislation. The main purpose of the federal WHMIS legislation is to require the suppliers of hazardous materials used in the workplace to provide health and safety information about their products as a condition of sale. The main purpose of the provincial WHMIS legislation is to require employers to obtain health and safety information about hazardous materials in the workplace and to pass this information on to workers.

The Federal WHMIS Legislation

There are 5 pieces of federal legislation that implement WHMIS.

1. The Hazardous Products Act, which places duties on suppliers, who sell or import a hazardous material for use in a workplace in Canada, to provide labels and material safety data sheets to their customers.
2. The Controlled Products Regulation, passed on January 20, 1988, under the authority of the Hazardous Products Act. This regulation defines what a controlled product is, and also sets out in detail the information that the supplier is required to put on a label and a material safety data sheet.
3. The Ingredient Disclosure List, issued on January 20, 1988, under the Hazardous Products Act. This list contains the names of chemicals which must be identified on a material safety data sheet, if they are ingredients of a controlled product, and present above a specified concentration.

The Ingredient Disclosure List is *not* a finite list of chemicals to which WHMIS applies. Although most of the chemicals on the list are controlled products, WHMIS applies to many more chemicals than are on the list.

4. The Hazardous Materials Information Review Act, passed on June 30, 1987. This Act establishes the Hazardous Materials Information Review Commission, which is the federal agency that will rule on claims for exemption from disclosing confidential business information. The Act also defines the type of information that a supplier or employer may withhold from a label or material safety data sheet.
5. The Hazardous Materials Information Review Regulations passed on January 20, 1988, under the Hazardous Materials Information Review Act. This regulation sets out the criteria that the Commission will use when assessing the validity of a claim for exemption, and also sets out the fees to be paid when filing a claim for exemption, or appealing a decision of the Commission.

Ontario's WHMIS Legislation

There are 2 pieces of provincial legislation that implement WHMIS in Ontario:

1. The Occupational Health and Safety Act, which places duties on employers in charge of workplaces where hazardous materials are used, to obtain labels and material safety data sheets from their suppliers and to provide worker education programs.
2. The WHMIS Regulation, Ontario Regulation 644/88 (now R.R.O. 1990, Regulation 860) which came into effect on October 31, 1988. This regulation sets out in detail the employer duties respecting labels, material safety data sheets and worker education.

Ontario's WHMIS Regulation is based on a *model* regulation. All other provinces and territories based their WHMIS regulations on the same model. This procedure was followed in order to ensure consistency across Canada, of the provincial and territorial WHMIS legislation.

*Note: The provincial WHMIS legislation does **not** apply to federal workplaces such as banks, post offices and airports. Instead, certain sections of the Canada Labour Code and the Canada Occupational Safety and Health Regulations implement WHMIS in federal workplaces. These sections are not covered in this guide.*

3. WHMIS and the Supplier

The duties of the supplier in order to comply with WHMIS are set out in the federal Hazardous Products Act and the Controlled Products Regulation. This chapter describes those duties, and where applicable, references the relevant sections of the federal law. In this chapter, all references to "the Act" mean the Hazardous Products Act, and all references to "the regulation" mean the Controlled Products Regulation. More detailed information is available in a publication entitled *WHMIS Core Material, A Resource Manual for the Application and Implementation of WHMIS*. It can be ordered for \$15.00 from:

Publications and Videos
Workers' Compensation Board of B.C.
www.worksafebc.com
Telephone: (604) 276-3068

General Information

Who is a supplier?

A supplier is a person who manufactures, processes, packages, sells or imports a hazardous material intended for use in the workplace.

What are the duties of a supplier?

A supplier has three duties.

1. To determine which hazardous materials intended for use in the workplace are controlled products. This is the "classification" step.

2. To label all controlled products as a condition of sale (section 13(b) of the Act) or importation (section 14(b) of the Act).
3. To provide material safety data sheets for controlled products as a condition of sale (section 13(a) of the Act) or importation (section 14(a) of the Act).

Classification

What is a controlled product?

A controlled product is any product that can be included in any of the following 6 classes:

Class A	Compressed Gas,
Class B	Flammable and Combustible Material,
Class C	Oxidizing Material,
Class D	Poisonous and Infectious Material,
Class E	Corrosive Material, and
Class F	Dangerously Reactive Material.

Two of the classes, Class B and Class D, are subdivided as follows:

- Class B Flammable and Combustible Material
 - Division 1 Flammable Gases
 - Division 2 Flammable Liquids
 - Division 3 Combustible Liquids
 - Division 4 Flammable Solids
 - Division 5 Flammable Aerosols
 - Division 6 Reactive Flammable Materials

- Class D Poisonous and Infectious Material
 - Division 1 Material Causing Immediate and Serious Toxic Effects

Subdivision A Very Toxic Material
Subdivision B Toxic Material

Division 2 Materials Causing Other Toxic Effects

Subdivision A Very Toxic Material
Subdivision B Toxic Material

Division 3 Biohazardous Infectious Material

How does a supplier determine if a product that he/she sells is a controlled product?

The supplier must refer to Part IV of the Controlled Products Regulation, sections 32 - 66. This part of the regulation has a very detailed definition, or criteria, for each WHMIS class, division and subdivision. The supplier must compare the characteristics or properties of the product in question, to the criteria in Part IV. If the properties of the product meet the criteria for any of the classes, divisions or subdivisions, it is a controlled product.

Is the supplier required to test a material to determine whether it is a controlled product?

To determine if a material is a controlled product, the supplier is allowed to use someone else's test results on the material, or where appropriate, someone else's test results on a material that has similar properties. However, if no test results on the material or a material with similar properties are available, the supplier is required to test it to determine if it falls into Classes A, B, C, E, or F.

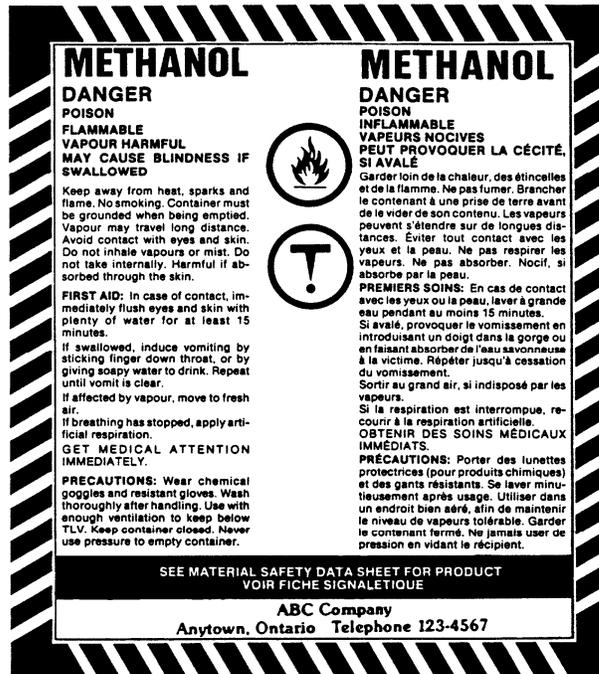
The supplier is not required to test the material to determine if it falls into Class D, even if no test data exist. To classify a material as belonging to Class D, the supplier is allowed to use information that he/she is or ought to be aware of (section 33 of the regulation).

The Supplier Label

What is a label?

A label can be any mark, sign, device, stamp, seal, sticker, ticket, tag or wrapper.

Supplier Label



What information is the supplier required to put on a label?

There are 7 items of information that the supplier must put on the label of a controlled product (section 19(1) of the regulation).

1. The *name of the product*, which can be any one of the chemical name, common name, generic name or trade name.

If the name of the product is a trade secret, the supplier can use a code name or code number to identify the product (section 19(2)(a) of the regulation).

2. The *name of the supplier*.

3. *A reference to a material safety data sheet*, which is a statement alerting the user of the controlled product that more information is available. Examples include:

- See Material Safety Data Sheet, or
- Consult Material Safety Data Sheet.

4. *Hazard symbol(s)* as shown in Appendix I.

Each WHMIS class has a corresponding hazard symbol, except for Class D, which has 3 hazard symbols, 1 for each of its Divisions.

In general, the label should include a hazard symbol for each WHMIS class that the controlled product falls into. There is one exception to this general rule, namely, when a controlled product falls into both Divisions 1 and 2 of Class D, only the hazard symbol for Division 1 is required on the label (section 19(5) of the regulation).

5. *Risk phrases*, which are short statements describing the hazardous properties of a controlled product. Examples of risk phrases include:

- rapidly absorbed through skin,
- eye irritant,
- causes severe burns,
- explosive when dry,
- reacts violently with water.

The exact wording of the risk phrases is up to the supplier.

6. *Precautionary measures*, which are short statements describing the precautions to be taken when handling a controlled product. Examples of precautionary measures include:

- wear face protection,
- avoid prolonged contact with skin,
- store away from heat,

- when using, do not smoke, or
- keep container dry.

The exact wording of the precautionary measures is up to the supplier.

7. *First aid measures*, which are short statements describing the immediate steps to be taken, either by the victim or by co-workers, when an accident with a controlled product has occurred. The statements should be specific to the product. First aid measures do not include additional steps to be taken only by a medical professional.

Note: If the container of the controlled product has a volume of 100 millilitres or less, the supplier is allowed to make an abbreviated label that includes items 1 to 4 only (section 19(1)(a) - (d) of the regulation).

What are the design requirements of the supplier label?

The design requirements of the supplier label concern language, a border, layout and colour.

1. Language The supplier label must be in English and French. The supplier can make one bilingual label or two separate labels, one in English and one in French (section 24(3) of the regulation).
2. Border The supplier label must have a border, as shown in the sample supplier label in Appendix II. The shape and slant of the hatch marks must be the same as in the sample but the size and spacing of the marks can vary. The border may be on the label or on the container. The border can be any colour that contrasts with the background (section 20(a) of the regulation).
3. Layout Appendix II shows one of many acceptable formats for the supplier label. As long as all the required information is present, the individual items such as the product name, or the first aid measures, can be located anywhere within the border.

There is no minimum or maximum size specified for the supplier label. There is only a general requirement that the label be easily legible (section 21(l) of the regulation).

4. **Colour** In addition to the requirement that the border be in a colour that contrasts with the background, there is a requirement concerning the colour of the hazard symbols. In general, hazard symbols on the label must be "in a colour that is not likely to create confusion" with a safety mark required by transportation of dangerous goods legislation (section 22(b) of the regulation). For an explanation of what this means, and the colours that are permitted for hazard symbols, see Chapter 8.

Outer and Inner Containers

What are the duties of the supplier when labelling a controlled product that is packaged in outer and inner containers (for example, a box containing 4 cans of a controlled product)?

As a general rule, every container must have a WHMIS supplier label; however there are 4 exceptions. The supplier does not have to label:

1. an inner container, if the outer container has a supplier label, and the supplier has a written agreement with the employer that the employer will label the inner container;
2. an inner container that is actually a package liner, for example, a plastic bag used to contain powder in a box;
3. an outer container, if the label on the inner container can be seen and read through the outer container, for example, inner containers shrink wrapped in clear plastic; and
4. an outer container, if the outer container is labelled according to transportation of dangerous goods legislation and all inner containers have WHMIS labels (section 14 of the regulation).

Bulk Shipments

What is a bulk shipment?

"Bulk shipment" means a shipment of a controlled product that is contained without intermediate packaging in

- (a) a vessel with a water capacity of more than 454 litres,

- (b) a freight container, a road vehicle, a railway vehicle, a portable tank, a freight container carried on a road vehicle, railway vehicle, ship or aircraft, or a portable tank carried on a road vehicle, railway vehicle, ship or aircraft,
- (c) the hold of a ship, or
- (d) a pipeline.

How should the supplier label a bulk shipment?

When a controlled product is shipped in bulk it is usually transported to a worksite and then transferred to a storage container at the worksite. For the supplier to label the container or vehicle in which the shipment is transported does not achieve the purpose of providing a label for the controlled product once it is at the employer's worksite. Therefore, for a controlled product that is shipped in bulk, the supplier can provide the labelling information to the employer in any one of 3 ways (section 15(1)(a) of the regulation).

1. The supplier can send a label with the shipping documents.
2. The supplier can send the labelling information in the form of a written statement, for example, in a letter.
3. The supplier can add the labelling information to the material safety data sheet for the controlled product.

If the supplier chooses option 2 or 3 above, are the hazard symbols required?

No. If the supplier sends the employer the labelling information in a written statement or material safety data sheet, the hazard symbols can be replaced by a reference to the Class, and where applicable the Division, into which the controlled product falls (section 15(2) of the regulation).

Does the supplier have to send a label, or labelling information, with every bulk shipment of a controlled product?

No. If the employer received the labelling information with an earlier shipment, and that information is still current, the supplier is not required to send the labelling information with subsequent bulk shipments (section 15(1)(b) of the regulation).

Note: This differs from the requirements for controlled products that are not shipped in bulk, in which case labels are required on containers every time the controlled product is sold.

The Supplier Material Safety Data Sheet

What is a material safety data sheet?

A material safety data sheet (MSDS) is a technical document or bulletin that summarizes the health and safety information available about a controlled product. It supplements the warning information on the label.

Note: A supplier MSDS is not intended to provide all the information needed for the safe use of a product. The way a controlled product is used, and consequently the hazard to the worker, can vary from plant to plant. The supplier is not expected to anticipate every required protective measure for every workplace to which the product is sold. The employer, through the worker education program, is expected to tailor the supplier's information to the conditions in the employer's workplace.

What information is required on a supplier MSDS?

A supplier MSDS must have at least 9 sections with the following or similar headings (section 12 (1) and Schedule I of the regulation).

1. Product Information to identify the product, the supplier/manufacturer, and to describe the use of the product.
2. Hazardous Ingredients to provide information on the name, concentration and toxicity of each hazardous ingredient of a controlled product.

3. Physical Data which means information that describes the physical properties of the product, such as whether the product is a solid, liquid or gas.
4. Fire or Explosion Hazard which includes information on how likely the product is to ignite or explode under various conditions.
5. Reactivity Data to provide information on the chemical stability of the product, and how likely it is to react with other chemicals.
6. Toxicological Properties to provide information on how the product enters the body and what its short- and long-term health effects are.
7. Preventive Measures to provide information on the measures to protect worker health and safety during the transportation, storage, use and disposal of the product, as well as emergency procedures.
8. First Aid Measures to provide information for the safe evacuation and immediate treatment of anyone overexposed to a controlled product.
9. Preparation Information which means the name and phone number of the person or group who prepared the MSDS, and the date of preparation.

Within these 9 sections, about 60 specific items of information must be included, if available to the supplier and applicable to the controlled product (section 12(2) of the regulation). Appendix III shows the 9 sections of the supplier MSDS and the specific information required in each section.

What is the required format of the supplier MSDS?

With a few exceptions, the supplier may adopt any format or design for the MSDS as long as the 9 required sections are included. The following points summarize these exceptions and give some general guidelines for completing the MSDS.

1. Each of the 9 sections must have a heading the same as or similar to the one shown in Appendix III (section 12(1) of the regulation).

For example, the *Product Information* section could be entitled *Product Information* or *Product Identification and Use*.

2. Headings cannot be combined to form one heading. There must be 9 separate headings. However, one heading may appear as a subheading under another heading. For example, *Fire or Explosion Hazard* may appear as a subheading under *Physical Data*.
3. The information items shown in Appendix III do not necessarily have to be in the sections or categories shown, but can be put in other sections if it makes sense to do so. For example, it would be acceptable to put the LD₅₀ value for the hazardous ingredients of a controlled product in the *Hazardous Ingredients* section (as shown in Appendix III) or in the *Toxicological Properties* section. However, it would not be appropriate to put conditions of flammability in the *Toxicological Properties* section.
4. The name and concentration of hazardous ingredients must always appear in the *Hazardous Ingredients* section as opposed to any other section on the MSDS (section 12(3) of the regulation).
5. The name and phone number of the person or group who prepared the MSDS, and the date of the MSDS must always appear in the *Preparation Information* section (section 12(3) of the regulation).
6. It is not acceptable to replace a required heading with a variety of other headings. For example, the supplier cannot replace the heading *Preventive Measures* with the headings:
 - Special Protection Information,
 - Special Precautions, and
 - Spill or Leak Procedures.
7. If for any of the 9 sections, none of the required information is available or applicable, the MSDS must have the words "not available" or "not applicable", as the case may be, under the section heading. The supplier is not permitted to leave a section blank (section 12(6) of the regulation).

In addition to the information shown in Appendix III, is any other information required on the supplier MSDS?

Yes. The MSDS must have any other hazard information about the controlled product of which the supplier is aware or ought to be aware (section 12(11) of the regulation).

For the purpose of completing the MSDS, what is a hazardous ingredient?

A hazardous ingredient is any one of the following:

1. an ingredient that can be classified as a controlled product;
2. an ingredient that is on the Ingredient Disclosure List;
3. an ingredient for which the toxicological properties are unknown;
or
4. an ingredient that the supplier has reasonable grounds to believe may be harmful.

Are there any exemptions to the requirement to list the hazardous ingredients of a controlled product on an MSDS?

Yes. There are 4 circumstances in which hazardous ingredients do not have to be listed on the MSDS.

1. Concentration Cut-off A hazardous ingredient does not have to be listed on the supplier MSDS if it is present below a concentration of
 - (a) 0.1% and is a teratogen, embryotoxin, carcinogen, reproductive toxin, respiratory tract sensitizer or mutagen*; or
 - (b) 1%, unless it is on the Ingredient Disclosure List and the cut-off specified in the list is 0.1% (section 4 of the regulation).

** These terms are defined in Part IV of the Controlled Products Regulation, sections 53-57.*
2. Complex Mixtures Hazardous ingredients do not have to be listed on an MSDS if the controlled product is a complex mixture and if

the supplier discloses the generic name of the complex mixture on the MSDS (section 5 of the regulation).

Turpentine and petroleum distillates are examples of complex mixtures. A complex mixture contains many ingredients whose concentrations may vary from batch to batch. In addition, a complex mixture,

- (a) has a commonly known generic name;
 - (b) is naturally occurring;
 - (c) is a fraction of a naturally occurring mixture that results from a separation process; or
 - (d) is a modification of such a mixture or fraction.
3. Research and Development Hazardous ingredients do not have to be listed on an MSDS if the controlled product is actually a laboratory sample being tested for research and development purposes, and if the generic chemical identity of the ingredients is disclosed (section 9(2) of the regulation).
4. Confidential Business Information A hazardous ingredient does not have to be listed on an MSDS if its identity is a valid trade secret.

Are disclaimer statements permitted on the supplier MSDS?

Yes, but only certain types of disclaimers. The regulation (section 25) does not allow the use of disclaimers that contain information that is

- (a) not required, and
- (b) contradicts information that is required.

The purpose of this requirement is to prohibit the use of disclaimers that could confuse the user about the hazardous properties of a product. For example, the following disclaimer would not be permitted:

"Although this product meets the carcinogenicity criteria there is no substantial proof that it causes cancer."

Examples of disclaimers that would be permitted are:

"The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data or the results obtained from the use thereof."

or

"This company assumes no responsibility for personal injury or property damage to vendees, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of the material."

These disclaimers do not diminish the duty of the supplier to provide accurate information.

Does the MSDS have to be updated?

Yes. The MSDS has to be updated if new information becomes available, for example, as the result of further testing of the product (section 29(1) of the regulation). The MSDS should be updated as soon as reasonably practicable after the new information becomes available.

If no new information becomes available in the 3 years after the MSDS was prepared, the supplier has to review the MSDS to make sure the information is still accurate and re-date the MSDS.

The supplier should provide the updated MSDS to customers buying the controlled product after the change to the MSDS was made. The supplier is not required to send the updated MSDS to previous customers (section 29(2) of the regulation).

What are the language requirements of the supplier MSDS?

The supplier MSDS must be available in French and English at the time of sale or importation. There can be one bilingual document or separate French and English data sheets (section 24(1) of the regulation).

Where 2 separate data sheets exist, the supplier does not have to send both to the employer unless so requested. If no request is made, the supplier would send an MSDS to the employer in the language normally used in the course of the business transaction (section 24(2) of the regulation).

What is a generic MSDS and when is the supplier permitted to prepare one?

A generic MSDS is one that applies to a group of controlled products instead of just one. Its use is permitted when the chemical composition of a group of controlled products is similar, for example, a group of paints where the only difference between products is the pigment used.

For any one product, if either the concentration of an ingredient or the hazard information differs from that of other products in the group, these differences must be disclosed on the MSDS.

A generic MSDS must include the names of all products to which it applies, exactly as those names appear on the labels of the products (section 7 of the regulation).

Imported Controlled Products

What are the duties of the supplier respecting imported controlled products?

For an imported controlled product, the supplier (i.e. importer) must either prepare, or if possible obtain from the off-shore source, a supplier label and MSDS on importation (section 14 of the Act).

There is an exemption to this general requirement (section 23(1) of the regulation). The supplier does not have to provide a label or MSDS on importation if 2 conditions are met:

1. the controlled product is to be labelled or repackaged in Canada; and
2. the supplier provides certain information about the product, and where requested a sample of the product, to an inspector in each province into which the product is imported.

What information must the supplier provide to an inspector?

The supplier must provide an inspector with a written statement that has the following information:

1. the intention to import the controlled product;
2. the name and type (for example, acid, base, biological hazard, flammable gas, etc.) of controlled product;
3. the address of the workplace where the imported controlled product is to be labelled or repackaged; and
4. the names of all provinces into which the controlled product is to be imported (section 23(1)(a) of the regulation).

This written statement is valid for 3 years (section 23(2) of the regulation).

In addition to the written statement, the inspector also has the right to request the following from the supplier:

1. a sample of the controlled product, on or before importation;
2. the dates and places of importation; and
3. the approximate quantity of the controlled product to be imported (section 23(1)(b) of the regulation).

The imported controlled product cannot be used or sold without a label or MSDS (sections 23(3) and (4) of the regulation).

What are the labelling duties of the supplier if the imported controlled product is delivered directly to the workplace of the buyer?

In general, the supplier is responsible for making sure that the controlled product is labelled, before it is used by the buyer. There is one exemption to this general rule. The supplier does not have to label the controlled product if he/she has a written agreement with the buyer, that the buyer will apply a supplier label to the controlled product (section 23(5) of the regulation).

Exemptions

Are there any exemptions from the federal WHMIS legislation?

Yes. The federal WHMIS legislation does not apply to the sale or importation of any

- restricted products when packaged as consumer products;
- explosives within the meaning of the Explosives Act;
- cosmetics, drugs, food and devices within the meaning of the Food and Drug Act;
- pest control products within the meaning of the Pest Control Products Act;
- prescribed substances within the meaning of the Nuclear Energy Act;
- wood or products made of wood;
- manufactured articles;
- tobacco or products made of tobacco;
- hazardous wastes.

What is a restricted product?

A restricted product is a product that is sold to the public but its sale is regulated by the federal Hazardous Products Act. Paint stripper is an example of a restricted product. It is sold to consumers but must be packaged and labelled according to requirements set out in the Hazardous Products Act.

What does "packaged as a consumer product" mean?

A product is packaged as a consumer product when

1. it is in a container that is available for sale to the general public, and
2. it meets the labelling and other packaging requirements for consumer products under the Hazardous Products Act.

What is a manufactured article?

A manufactured article is any article which meets three conditions:

1. it is formed to a specific shape or design during manufacture;
2. its intended use when in that form depends in whole or in part on its shape or design as manufactured;
3. under normal conditions of use it will not release or otherwise cause a person to be exposed to a controlled product.

Note: "Normal conditions of use" does not include the release of a controlled product during the installation, maintenance or misuse of a manufactured article.

The following examples are given to further explain the exemption for manufactured articles.

- Welding rods are not manufactured articles because, although formed to a specific design, during use they release controlled products previously contained in the rods.
- Piping, whether made of mild, galvanized or stainless steel, is a manufactured article because it does not release controlled products during its intended use of conveying fluids from one point to another.
- Sheets of friction materials which contain asbestos and which are manufactured with the intent of later being cut or shaped to form specific friction products are not manufactured articles.
- Specific friction products which contain asbestos, such as brake shoes fitted with pre-arced linings, disc brake pads and clutch friction plates are manufactured articles. While workers may be exposed to asbestos fibres during installation or maintenance of these articles, exposure is not likely during their use for the purposes of braking or engaging moving parts.

- A cylinder produced for the purposes of containing acetylene is a manufactured article. Once filled with acetylene, however, the cylinder is a container for a controlled product and, when sold as such, must be provided with labels and data sheets.
- A refrigerator is a manufactured article made up of various components including a system for containing compressed gases. Unlike the compressed gas cylinder, the refrigerator is not considered to be a container of a controlled product.

4. WHMIS and the Employer

In Ontario, the duties of the employer in order to comply with WHMIS are set out in the Occupational Health and Safety Act and the WHMIS Regulation. This chapter describes those duties and where applicable, references the relevant sections of the provincial law. In this chapter, all references to "the Act" mean Ontario's Occupational Health and Safety Act, and all references to "the regulation" mean Ontario's WHMIS Regulation.

Earlier chapters of this guide state that the WHMIS legislation applies to products that can be classified as "controlled products", and this is the term used throughout the federal WHMIS legislation. Ontario's WHMIS legislation uses both the terms "hazardous material" and "controlled product" to refer to products that are covered by WHMIS. The term "hazardous material" is used in the Act, while the term "controlled product" is used in the regulation. For the purpose of implementing WHMIS, these terms mean the same thing.

General Information

What are the duties of an employer in charge of a worksite where controlled products are used?

An employer in charge of a worksite where controlled products are used has 3 duties:

1. to ensure that controlled products are labelled or identified,
2. to obtain material safety data sheets for controlled products, and
3. to educate workers.

Labelling and Identification

The Supplier Label

What are the duties of the employer respecting the labelling of a controlled product purchased from a supplier?

1. The employer must ensure that every container of a controlled product received from a supplier has a supplier label (section 8(1) of the regulation).

A proper supplier label is shown in Appendix II.

2. The employer must also ensure that until the supplier container is empty, the supplier label is not deliberately removed, destroyed or changed (section 37(2) of the Act and section 8(2) of the regulation).

What should the employer do if the supplier has not provided an appropriate label for the controlled product?

The employer is allowed to store a controlled product but not to use it until proper labels are obtained (section 5(1) of the regulation).

The employer should notify the Ministry of Labour in writing, if after making reasonable efforts such as telephoning and/or writing the supplier, he/she is unable to obtain proper labels (section 37(4) of the Act).

What should the employer do if the supplier label is accidentally removed or destroyed?

The employer must replace the supplier label. To do this the employer has 2 choices.

1. The employer can use a new supplier label if extras are on hand. For example, at the time of purchase the employer can ask the supplier to include some extra labels with the shipment in case the employer has to replace any of the supplier labels.

or

2. The employer can make a workplace label (section 8(3) of the regulation).

The Workplace Label

What is a workplace label?

A workplace label is a label that the employer produces, for use in the employer's workplace only, and that contains the following information:

1. the identity of the product;
2. information for the safe handling of the product; and
3. a statement that a material safety data sheet, if supplied or produced, is available.

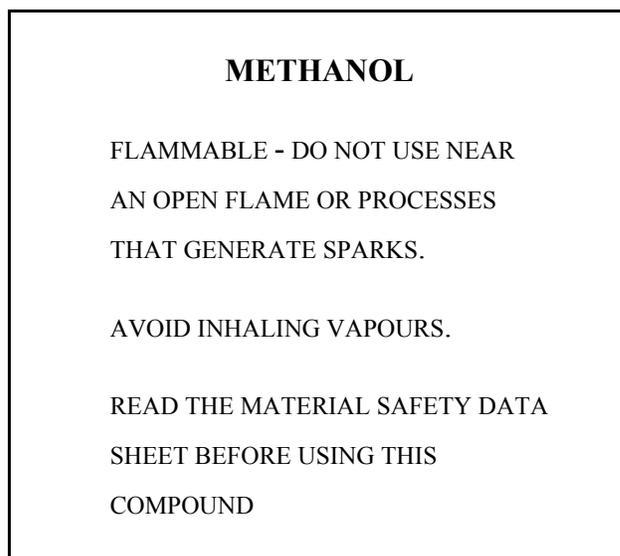
These requirements for the workplace label are very general, unlike the federal requirements for the supplier label, which are very specific. The workplace label does not require a border, hazard symbols or specific wording. However, in spite of the flexibility given to the employer, there are some commonly understood expectations as to what makes an acceptable workplace label.

First, in identifying the product, the workplace label must indicate one of the following: the brand name, chemical name, common name, generic name, trade name, code name or code number of the controlled product.

Second, "information for the safe handling of the product" means precautions that the worker must take to minimize the risks of adverse health effects or physical injury. These precautions can be conveyed by using pictures, words, symbols or any other mode of communication. Whatever mode of communication is used, it must be combined with worker education to ensure that the information on the workplace label is understood.

Third, if a material safety data sheet is available for the controlled product, the workplace label must say so. This material safety data sheet may be one provided by the supplier of the product, or one prepared by the employer. Note that for some controlled products, no

data sheet will be available, for example, for the controlled products referred to on page 43, under point 2, *Partial Exemption*. In such cases the workplace label does not have to have any statement regarding a material safety data sheet.



Workplace Label

Decanted Controlled Products

What are the labelling requirements for a controlled product that is transferred from the supplier container into another container?

In general, if a controlled product is transferred from the supplier container into another container at the workplace, then the second container must have a workplace label (section 10(1) of the regulation).

There are 2 instances when a controlled product can be transferred from a supplier container to another container, and the second container will not require a workplace label. This is the case when the second container is a portable one, and

1. the controlled product transferred into it is used immediately, in which case no label or identification of any kind is required (section 10(2)(b) of the regulation);

or

2. all of the following conditions are satisfied:
 - (i) the controlled product is used only by the worker who filled the portable container;
 - (ii) the controlled product is used only during the shift in which the portable container was filled; and
 - (iii) the contents of the portable container are identified (section, 10(2)(a) of the regulation).

To identify the contents of a portable container, as referred to in 2(iii) above, the employer can use any means of identification. For example, colour coding, a chemical formula, or a product name, would all be acceptable.

Outer and Inner Containers

What are the duties of the employer respecting the labelling of a controlled product that is received in outer and inner containers (for example, a box containing 4 cans of a controlled product)?

The duties of the employer depend upon whether the employer and supplier have a written agreement that the employer will label inner containers of a multi-container shipment. Under the federal Controlled Products Regulation, the supplier does not have to label the inner containers of a multi-container shipment if two conditions are met:

1. the outer container has a WHMIS label, and
2. the supplier has a written agreement with the employer, that the employer will label the inner containers.

Under Ontario's WHMIS Regulation, if the 2 conditions above apply, the employer is required to fulfill his/her part of the agreement, and to label the inner containers of a multi-container shipment with supplier labels (section 8(4) of the regulation).

It should be emphasized that the employer's duty to label inner containers only comes into effect if a written agreement exists. The employer is under no obligation to have such an agreement with the supplier.

(For a full explanation of the supplier's duties respecting the labelling of a controlled product that is packaged in outer and inner containers, see page 13 of this guide and section 14 of the Controlled Products Regulation).

Imported Controlled Products

What are the duties of the employer respecting the labelling of imported controlled products?

The duties of the employer depend upon arrangements made between the employer and the supplier/importer. In general, under the federal WHMIS legislation it is the duty of the supplier/importer to provide a supplier label before the product can be sold in Canada. However, there is an exception to this general requirement. The supplier does not have to label an imported controlled product if 2 conditions are met:

1. the imported controlled product is shipped directly to the employer's workplace; and
2. the supplier has a written agreement with the employer, that the employer will label the controlled product.

Under Ontario's WHMIS Regulation, if the 2 conditions above apply, the employer is required to fulfill his/her part of the written agreement, and to label the imported controlled product with supplier labels (section 8(5) of the regulation). It should be emphasized that the employer is under no obligation to have a written agreement with the supplier.

Bulk Shipments

How should the employer label a controlled product that is received at the workplace as a bulk shipment?

For a controlled product that is received at the workplace as a bulk shipment, the employer is required to label the containers into which the shipment is off-loaded. The employer can use either

- (a) a supplier label; or
- (b) a workplace label,

depending upon the way in which the supplier has provided the labelling information (section 8(6) of the regulation).

Under the federal Controlled Products Regulation, the supplier can provide the labelling information for a bulk shipment, in any one of 3 ways:

- (a) by sending a label with the shipping documents that accompany the bulk shipment, or sending a label to the employer on or before receipt of the bulk shipment;
- (b) by sending the required labelling information in the form of a written statement; or
- (c) by adding the required labelling information to the material safety data sheet.

If (a) is the case, the employer would use the supplier label for the bulk shipment. If (b) or (c) is the case, the employer would use the information provided by the supplier to make a workplace label for the bulk shipment.

The employer will not receive a label or labelling information with every bulk shipment of a controlled product. If the employer already has up-to-date labelling information, for example, from a previous shipment, the supplier is not required to send the labelling information with subsequent bulk shipments.

If the bulk shipment is not off-loaded into a container, the employer is permitted to use a placard to identify the shipment. The placard must contain the information normally required in a workplace label (section 12(a)(i) of the regulation).

Controlled Products Produced in the Workplace

What are the labelling requirements for a controlled product that is produced in the workplace, rather than being purchased from a supplier?

The employer is required to make a workplace label for controlled products produced in the workplace (section 9(1) of the regulation). There is an exception to this general rule. A workplace label is not required on a controlled product that the employer has produced if that controlled product is packaged for sale, and is already, or is about to be, appropriately labelled. An example would be a controlled product that is in a container, ready for sale or distribution to retail outlets, and is appropriately labelled as a consumer product (section 9(2) of the regulation).

In addition, no label or identification is required for a fugitive emission, or for a controlled product that exists only as an intermediate and is undergoing further reaction within a process or reaction vessel (section 1(2) of the regulation).

Note: "Fugitive emission" refers to a small amount of a controlled product that is known to escape from process equipment or from emission control equipment. It does not refer to an escaped amount that would require any type of containment or clean-up measures to be taken.

How will the employer determine whether a chemical or biological agent produced in the workplace is a controlled product?

1. To determine whether a material produced in the workplace, for further use in that workplace, is a controlled product, the employer must go through the same steps that a supplier goes

through when classifying products intended for sale to workplaces. The employer should first refer to Part IV of the federal Controlled Products Regulation which sets out the criteria for the classification of controlled products and then determine which of the materials produced in the workplace meet any of the criteria (section 39(1) of the Act and section 3 of the regulation).

Assistance to the employer to properly classify controlled products produced for use in the workplace is available through private consultants and through the Canadian Centre for Occupational Health and Safety.

2. In the Act and the WHMIS Regulation, the process of determining whether a material produced in the workplace is a controlled product is called an *assessment*. The assessment should be in writing and a copy made available to workers as well as given to the joint health and safety committee if any, or a worker representative (section 39(2) of the Act).

Controlled Products in Piping Systems

What are the identification requirements of controlled products in piping systems and vessels?

When a controlled product is contained or transferred in,

- (a) a pipe,
- (b) a piping system including valves,
- (c) a process vessel,
- (d) a reaction vessel, or
- (e) a tank car, tank truck, ore car, conveyor belt or similar conveyance,

the employer can use any means to identify the controlled product. As long as the means of identification is understood by the worker, such devices as warning signs, symbols, piping diagrams or colour coding would all be acceptable (section 11 of the regulation). There is no requirement for a workplace label.

- Notes:** 1. *The worker education program must explain the means of identification, as well as procedures for the safe handling of controlled products contained in (a) through (e).*
2. *Material safety data sheets are required for controlled products contained in (a) through (e) unless the controlled product is an intermediate undergoing further reaction.*

Placard Identifiers

When is the employer permitted to use a placard instead of supplier or workplace labels?

The employer is allowed to post a placard to meet the labelling requirements of these regulations in three circumstances,

- (a) if the controlled product is not in a container,
- (b) if the controlled product is intended for export, or
- (c) if the controlled product is already packaged for sale or distribution, and the containers will be appropriately labelled within the employer's normal course of business, but not immediately.

The placard posted must contain the information normally required on a workplace label, and be clearly visible and legible to workers (section 12 of the regulation).

Summary of Labelling Requirements

REQUIREMENTS	SUPPLIER LABEL		WORKPLACE LABEL	PLACARD	LABORATORY LABEL*	
					Supply House	Sample
	<100 ml	>100 ml			<10 kg.	<10 kg.
Product Identifier	X	X	X	X	X	X
Supplier Identifier	X	X				X
MSDS Statement	X	X	X	X	X	
Hazard Symbol(s)	X	X				
Risk Phrase(s)		X			X	
Precautionary Measures		X			X	
First Aid Measures		X			X	
Safe Handling Info			X	X		
Ingredients**						X
Hazard Statement***						X
Border	X	X				X
Bilingual	X	X			X	X

* See Chapter 6

** Chemical identity or generic chemical identity, if known.

*** "Hazardous Laboratory Sample. For hazard information or in an emergency, call (emergency number)."

Material Safety Data Sheets (MSDS)

The Supplier MSDS

What are the duties of the employer regarding MSDSs for controlled products purchased from a supplier?

An employer who buys a controlled product is required to obtain an unexpired MSDS from the supplier on or before the first shipment (section 37(1)(b) of the Act and section 17(1) of the regulation).

"Unexpired" means dated within the last 3 years (section 37(5) of the Act).

What should the employer do if he/she is unable to obtain a supplier MSDS?

The employer is allowed to store the controlled product but not to use it until an MSDS is obtained (section 5(1) of the regulation).

The employer should notify the Ministry of Labour in writing, if after making reasonable efforts, he/she is unable to obtain an MSDS on or before the first shipment (section 37(4) of the Act).

What should the employer do when the supplier MSDS has expired?

If the employer has a supplier MSDS that has expired, that is, is more than 3 years old, but the controlled product is still used in the workplace, the employer is obligated to try and obtain a current data sheet from the supplier (section 17(3) of the regulation). The obligation is on the employer to ensure the currency of the data sheet, because under the federal Controlled Products Regulation, the supplier is *not* obligated to send an updated or revised data sheet to previous customers.

It is recognized that at times an employer may not be able to obtain an up-to-date supplier material safety data sheet. This may be the

case, for example, if the supplier has gone out of business or if the supplier no longer produces the material in question. In such cases, the employer is expected to make reasonable efforts to update the data sheet him/herself.

Reasonable efforts mean, for example, consulting the Canadian Centre for Occupational Health and Safety for assistance. It may be that the Canadian Centre already has an updated data sheet for that controlled product on file. The employer would only be responsible for adding new hazard information on the ingredients already listed in the expired data sheet (section 17(4) of the regulation).

Can the employer provide workers with an MSDS other than the supplier's MSDS?

Yes. The employer is allowed to provide workers with an MSDS that has a different format than the supplier's MSDS on 2 conditions:

1. that except for trade secret information, the MSDS provided by the employer does not contain less information than the supplier's MSDS; and
2. that the supplier's MSDS is available at the workplace and the data sheet provided by the employer states that fact (section 17(5) of the regulation).

The Employer MSDS

What are the duties of the employer respecting MSDSs for a controlled product produced in the workplace rather than purchased from a supplier?

The employer is required to prepare material safety data sheets for controlled products that are produced in the workplace, rather than purchased from a supplier (section 18(1) of the regulation).

The employer is required to disclose the same information on a workplace data sheet, that the supplier is required to disclose on a

supplier data sheet (section 18(3) of the regulation). In addition, the employer is required to disclose, upon request, the source of any toxicological data used to prepare the MSDS. The parties that can request the employer to disclose the source of toxicological data include an inspector, a worker, a member of the joint health and safety committee, a health and safety representative, or a worker representative (section 25 of the regulation). The employer can withhold the source of toxicological data if such information is a valid trade secret.

The employer is required to update the workplace data sheet every three years, unless new hazard information becomes available, in which case the data sheet must be updated within 90 days of the new information becoming available (section 18(4) of the regulation).

The employer is not required to prepare a data sheet for a fugitive emission, or for a controlled product that exists only as an intermediate, and is undergoing further reaction within a process or reaction vessel (section 1(2) of the regulation).

Availability of MSDSs

What are the employer's duties respecting availability or distribution of MSDSs at the workplace?

The employer is required to make copies of MSDSs readily available to workers, and to the joint health and safety committee, if any, or to a health and safety representative, if any (sections 38(1)(a) and (b) of the Act).

As a rule, readily available means located close to the workers and accessible to workers during each shift. It would not be acceptable, for example, to keep data sheets in an office that is remote from the shop floor, or that is locked during the night shift.

Can the employer make MSDSs available on a computer terminal?

Yes. The employer is permitted to make data sheets available to workers by means of a computer terminal, if the employer,

- (a) takes all reasonable steps to keep the computer terminal in working order;
- (b) provides a paper copy of the MSDS if requested by an employee; and
- (c) provides training on how to access computer-stored data sheets, to all workers working with or in proximity to controlled products, and to members of the joint health and safety committee or a health and safety representative (section 38 (5) of the Act).

Worker Education

The employer has a general duty to educate workers who are exposed or likely to be exposed to a controlled product on the job (section 42(1) of the Act).

In addition, the employer is obligated to consult the joint health and safety committee if there is one, or a worker health and safety representative, about the content and delivery of the education program (section 42(2) of the Act).

What information should the employer provide to workers?

If the controlled product is purchased from a supplier, the employer should inform the worker about all hazard information received from the supplier. In general, this means the information provided on supplier labels and data sheets, but it can also include other information such as letters from the supplier in response to inquiries from the employer. The employer should also pass on to workers any other hazard information that the employer is or ought to be aware of (section 6(1) of the regulation).

If the controlled product is produced in the workplace, the employer should inform the worker about all hazard information of which the employer is aware, or ought to be aware (section 6(2) of the regulation).

What does "information the employer ought to be aware of" mean?

For the purpose of interpreting what information the employer "ought to be aware of", the following are considered to be sources of occupational health and safety information that the employer should know about:

- publications and computerized information available from the Canadian Centre for Occupational Health and Safety;
- publications available from industry or trade associations of which the employer is a member and from labour organization(s) representing workers at the workplace; and
- publications from the Ontario Ministry of Labour.

It is not expected that the employer would have to consult all of the above sources, nor is the employer limited to the above.

What specific topics or areas must be covered in a worker education program?

The worker education program must cover the following 6 areas (section 7(1) of the regulation):

1. labels - the information required, the purpose of the information and the significance of the information;
2. modes of identification when used at the workplace instead of labels;
3. MSDSs - the information required, the purpose of the information and the significance of the information;
4. procedures for the safe use, storage, handling and disposal of a controlled product, including a controlled product in a piping system or vessel;

5. procedures to be followed where fugitive emissions are present; and
6. procedures to be followed in case of an emergency involving a controlled product.

Does the education program have to include instruction on every controlled product in the workplace?

No. Under the WHMIS Regulation, so-called "generic instruction" is permitted. Generic instruction refers to the instruction of workers without reference to specific controlled products or workplaces.

Generic instruction is acceptable in the following cases:

- (a) instruction in the content required on supplier labels, workplace labels and material safety data sheets;
- (b) instruction in how WHMIS works;
- (c) instruction in the hazards of a group of products which have similar properties and for which it is acceptable to use a generic material safety data sheet, provided there is instruction in hazards peculiar to any one product in the group;
- (d) instruction in work procedures for a group of products if the procedures are basically the same for all the products in the group;
- (e) instruction in work procedures that apply to a variety of worksites if the work procedures are basically the same at each site; and
- (f) preliminary stages of instruction in a multi-stage instruction program. For example, a construction industry education program might involve initial generic instruction of workers in trade schools or through programs provided by construction industry health and safety organizations, followed by on-site instruction in specific product hazards and procedures through extended tool-box meetings and the like.

Who needs to be educated?

The law requires that the employer educate "a worker exposed or likely to be exposed" to a controlled product (section 42(1) of the Act). The phrase "a worker exposed or likely to be exposed" is open to interpretation and may cause problems for the workplace parties and for regulators when determining the actual number of workers to be educated.

The following points are suggested as guidelines when determining who needs to be educated.

1. An "exposed worker" is any worker who stores, handles, uses or disposes of a controlled product, or who supervises another worker performing these activities.
2. A worker "likely to be exposed" is any worker who could be at risk during:
 - the storage, handling, use or disposal of a controlled product;
 - maintenance operations; or
 - emergencies, such as an accidental leak or spill.

The following examples are also offered to help employers determine the scope of their worker education programs.

Examples

1. Bulk quantities of chlorine are piped above ground from the receiving point at a pulp and paper mill to a storage location on site for use as a bleaching agent. Education about the hazards of chlorine will be required for all workers at the plant, at minimum, for the purposes of emergency evacuation.
2. A container of benzene is received at a hospital for transfer to and use in a laboratory. Instruction on the product will be required for the shipper/receiver, the worker who takes the container to the laboratory, lab personnel who handle, store or use the product,

workers responsible in event of an emergency with the product and appropriate supervisors.

3. Boxes of welding rods are received at an auto manufacturing plant that employs six hundred workers for use by five welders in an assembly area. No workers other than the welders are likely to be exposed to welding fumes. Instruction will be required only for the five welders and appropriate supervisors (and for first aid personnel if exposure could produce acute ill health effects).
4. In a retail store, education must be provided to those workers who routinely handle large quantities of controlled and consumer products, and who may be exposed as the result of a spill or other accident (e.g., warehouse staff).

After a worker has completed the education program, is any follow-up required?

Yes. The employer is expected to try and ensure that the worker has understood the training material, and is able to put into practice, on the job, what he/she has learned. It is left to the individual employer to devise the means to ascertain that a worker has been properly trained. For example, the employer may ask the worker to take some form of written or oral test, or to participate in a practical demonstration (section 7(3) of the regulation).

In the regulation, the phrase "so far as is reasonably practicable", has been included with respect to the above employer duty. It has been included in recognition of the fact that there will be cases when the employer will have difficulty ascertaining what workers have learned, because of language or literacy problems in the workforce.

After the education program has been developed, is any follow-up of the program required?

Yes. The employer must review the education program at least once a year, or more often if:

- conditions at the workplace change; or
- new information on a controlled product becomes available.

The review must take place in consultation with the joint health and safety committee, if any, or the worker health and safety representative, if any. There are a variety of means of demonstrating that reviews have been conducted as required by law; for example, through the minutes of a health and safety committee meeting.

The requirement for a review of the education program does not necessarily mean the retraining of workers. The review is meant to identify whether updating of the education program and retraining of workers are necessary.

An example of a case where retraining of workers is not necessary is as follows:

An updated material safety data sheet received at the workplace provides new hazard information. Management and the health and safety committee conclude that existing control procedures provide adequate protection against the newly identified hazard. After a review of the education program, it is decided that the new information can be adequately communicated by posting a copy of the revised data sheet on the staff notice board and making announcements at tool-box meetings.

Is the employer required to pay workers for time spent in worker education programs?

This issue is not restricted to WHMIS, nor is it directly addressed in any of the WHMIS legislation. It is the Ministry of Labour's position that time spent at training sessions should be considered work time, and that therefore workers should be paid at the regular or premium rate in accordance with their collective agreement, if any, or the Employment Standards Act.

Exemptions

Are there any exemptions from Ontario's WHMIS legislation?

Yes. The application of Ontario's WHMIS Regulation is related to the exemptions in the federal WHMIS legislation.

1. Complete Exemption Ontario's WHMIS legislation does not apply to a controlled product that is (section 4(3) of the regulation):
 - (a) wood or a product made of wood;
 - (b) tobacco or a product made of tobacco;
 - (c) a manufactured article; or
 - (d) being transported or handled pursuant to the requirements of the Transportation of Dangerous Goods Act.

2. Partial Exemption The WHMIS Regulation has limited application to a controlled product that is (section 4(2) of the regulation):
 - (a) an explosive within the meaning of the Explosives Act;
 - (b) a cosmetic, device, drug or food within the meaning of the *Food and Drug Act*;
 - (c) a control product within the meaning of the Pest Control Products Act;
 - (d) a prescribed substance within the meaning of the Nuclear Energy Act; or
 - (e) a material that is packaged as a consumer product and in quantities normally used by the consuming public.

The employer is not required to obtain a supplier label or any material safety data sheet if any of the above are used in the workplace.

The employer is required to ensure that the above are labelled with a label that meets the requirements of a workplace label. In

most cases, the existing label on the product will meet these requirements. The employer is also required to provide worker training respecting these products. In many cases, the training will be limited to ensuring that workers understand the information on the existing product label.

3. Hazardous Waste The WHMIS Regulation has limited application to hazardous waste. Where hazardous waste is generated in the workplace, and stored on site before disposal, the employer is expected to identify all containers of hazardous waste, and to train any workers who may be exposed to the hazardous waste, regarding its safe storage and handling (section 4(4) of the regulation).

Any means of container identification would be considered acceptable, as long as it is understood by the workers. Examples include:

1. colour coding of hazardous waste containers (in combination with education to ensure that workers will recognize the meaning of the colour);
2. a warning sign with the words, "Caution - Hazardous Waste"; and
3. a warning sign with a picture that conveys the appropriate message.

The employer is not required to provide a workplace label or a material safety data sheet for containers of hazardous waste.

5. WHMIS and the Worker

Worker Rights

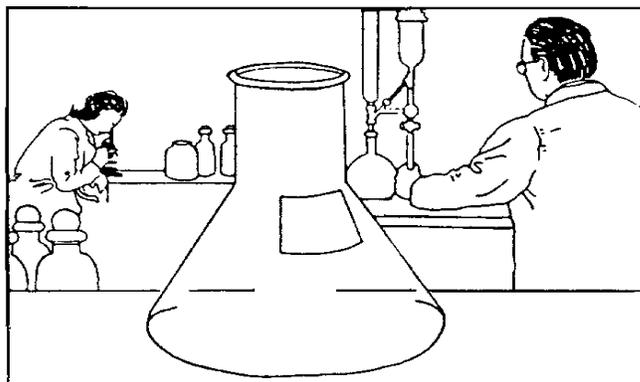
WHMIS gives workers the right to know about the hazardous materials they are exposed to on the job. This includes the right to review labels and MSDSs, and to receive instruction and training. Workers also have the right to be consulted regarding the development and implementation of the instruction and training. This means that workers have the right to be included in discussions of the content of the program, the amount of training, who is to receive what training, who delivers the training, etc. While the Occupational Health and Safety Act does not require workers, or give them the right, to actually do the training, the Ministry of Labour regards the principle of workers training other workers as a good one, which should be encouraged where appropriate.

Worker Responsibilities

Neither the Occupational Health and Safety Act nor the WHMIS Regulation places direct duties on the worker regarding the implementation of WHMIS. However, the general duties of the worker as originally set out in the Act (section 28) are very important to the successful implementation of WHMIS. One of these duties is the duty of the worker to report to the employer any violation of the Act or regulations. With respect to implementing WHMIS, the worker should inform the employer if the worker does not have the proper information on a controlled product. For example, the worker would report the absence of an MSDS for a new product, or the fact that a label had become illegible.

6. Special Applications of WHMIS

Laboratories



This section describes the application of WHMIS to laboratories. Laboratories are treated separately in this guide because both the federal Controlled Products Regulation (CPR) and Ontario's WHMIS Regulation (Ont. Reg.) have sections that apply only to labs and not other workplaces.

Controlled Products from Laboratory Supply Houses

Is a full supplier label, as shown in Appendix II, required on a controlled product sold to a laboratory?

Not necessarily. A full supplier label is not required on a controlled product that meets the following 3 conditions (section 17(a) of the CPR):

1. the product comes from a laboratory supply house;
2. the product is intended for use in a laboratory; and

3. individual containers of the product hold less than 10 kilograms.

Instead, the supplier is permitted to apply a label that

1. identifies the product;
2. gives the appropriate risk phrases, handling precautions and first aid measures; and
3. indicates that an MSDS is available, if there is one.

This label does not require a border, hazard symbols or a supplier identifier (sections 17(b) and 20(2) of the CPR).

Where the supplier does not have to provide a full supplier label for a controlled product sold to a lab, the employer does not have to obtain a full supplier label (section 13 of Ont. Reg.).

What are the labelling requirements if a controlled product from a laboratory supply house is transferred from its original container to another container?

No label is required but the second container must be identified through a combination of any means of identification and worker education. The combination of identification and education used should enable lab employees to identify the product in the second container and know where to obtain more information about the product if needed (section 15 of Ont. Reg.).

Is an MSDS required for a controlled product sold to a laboratory?

The supplier does not have to provide an MSDS if all of the following conditions are met (section 10 of the CPR):

1. the product has a label that contains all the information that would be required on the MSDS for that product;
2. the product comes from a laboratory supply house;
3. the product is intended for use in a lab; and

4. individual containers of the product hold less than 10 kilograms.

Where the supplier does not have to provide an MSDS for a controlled product sold to a lab, the employer does not have to obtain one (section 17(6) of Ont. Reg.).

Laboratory Samples of Controlled Products

The requirements respecting a laboratory sample of a controlled product depend upon whether the sample is sent off the workplace premises to an independent lab for testing, or whether the sample is tested in an in-house laboratory that is part of the same company or organization from which the lab sample originates.

If the sample is sent to an independent lab for testing, the requirements of the Controlled Products Regulation apply to the supplier of the sample and the requirements of Ontario's WHMIS Regulation apply to the receiver of the sample (i.e., the employer).

If the sample is tested in an in-house lab, only the requirements of Ontario's WHMIS Regulation apply.

What is a laboratory sample?

A "laboratory sample" is a sample of a controlled product that is intended solely to be tested in a laboratory for purposes such as routine analysis, research and development, etc. It does not include a controlled product that is to be used,

- for testing other products, materials or substances, or
- for educational or demonstration purposes.

Is a full supplier label required on a laboratory sample sent to an independent lab?

Not necessarily. A full supplier label is not required on a lab sample if the following conditions are met (section 16(a) of the CPR):

1. no MSDS is available for the controlled product from which the sample was taken; and
2. the sample of controlled product is less than 10 kilograms.

Instead, the supplier is allowed to apply a label to the lab sample that (section 16(b) of the CPR):

1. identifies the product;
2. identifies the supplier;
3. gives the chemical identity, or generic chemical identity of any hazardous ingredients, if known;
4. includes the statement "Hazardous Laboratory Sample" and a telephone number to be called for more information or for emergency purposes; and
5. has a border as shown in Appendix II.

Where the supplier does not have to provide a full supplier label for a lab sample, the employer is not required to obtain one (section 14 of Ont. Reg.).

Is an MSDS required for a lab sample sent to an independent lab?

The supplier is not required to provide an MSDS for a lab sample if the following conditions are met (section 9(1) of the CPR):

1. no MSDS is available for the controlled product from which the sample was taken;
2. the sample is less than 10 kilograms; and
3. the sample has a label that meets the requirements of section 16(b) of the Controlled Products Regulation, as outlined in the answer to the previous question.

What type of label is required on a lab sample tested in an in-house lab?

No label is required but the lab sample must be identified by a combination of any means of identification and worker education. The combination of identification and education used should enable lab employees handling the sample to identify it, to identify its ingredients and to know where to get more information about the sample if needed (section 15 of Ont. Reg.).

Is an MSDS required for a lab sample that is tested in an in-house lab?

No (section 18(2) of Ont. Reg.).

What type of label is required if a lab sample received from a supplier is transferred from its original container to another container?

No label is required, but the second container must be identified through a combination of any means of identification and worker education. The combination of identification and education used should enable lab employees handling the sample to identify it, to identify its ingredients and to know where to get more information about the sample if needed (section 15 of Ont. Reg.).

Controlled Products Produced in the Laboratory

What requirements apply to a controlled product that is produced in the lab and intended for regular use in the lab, for example, a reagent used in routine testing?

The employer is required to make a workplace label and an MSDS for a controlled product produced for use in the lab (sections 9(1) and 18(1) of Ont. Reg.). These requirements are identical to the requirements for controlled products produced in non-laboratory workplaces.

These requirements are intended to apply to a controlled product whose properties and attendant hazards are sufficiently different from those of its parent compounds that the new product warrants such treatment.

These requirements are not intended to apply to a controlled product that is, for example, a dilution. The hazardous properties of the dilute solution would be sufficiently similar to the parent compound that the dilution could be treated as a decanted controlled product (i.e., identification plus education). Any variation in degree of hazard between the dilution and the parent compound could be explained in the worker education program.

What requirements apply to a controlled product that is produced in the lab for research and development purposes?

Neither a workplace label nor an MSDS is required for a controlled product that is produced in a lab for research and development purposes, and that will not be removed from the lab. Instead the employer is permitted to use any combination of identification and education that enables workers to identify the product and obtain such information as is needed for the safe use, storage and handling of the product (section 16 of Ont. Reg.).

Construction Projects

This section describes the application of WHMIS to construction projects. Unlike the previous section on labs, there are no requirements in the WHMIS legislation that apply only to construction projects. However, they are still treated separately in this guide because there are differences between construction projects and other workplaces that affect the division of employer responsibilities. Specifically, a construction project may be a multi-employer site. The constructor is an employer, but so is every contractor or sub-contractor associated with a building trade, such as the employer of the electricians, the employer of the painters, etc.

The information in this section has been prepared in consultation with the Ontario Construction Industry's Labour-Management Health

and Safety Committee. It is intended to clarify the responsibilities of the constructor, who is the "employer" with respect to the whole project, and the responsibilities of the contractor or sub-contractor who employs a group of tradespeople who may be on site for only part of the duration of the entire project.

What are the responsibilities of the contractor or sub-contractor on a construction project?

1. To ensure that any controlled product brought on site by the contractor or sub-contractor is labelled.
2. To maintain and make available to workers, MSDSs for controlled products brought on site by the contractor or sub-contractor.
3. To give the constructor all MSDSs for controlled products brought on site by the contractor or sub-contractor.
4. To train own workers about WHMIS, and about the controlled products that they use on site.
5. To inform other contractors, sub-contractors and workers who may be affected by the controlled products that the contractor or sub-contractor brings on site.
6. To inform the constructor of WHMIS-related conflicts among contractors or sub-contractors on the project.

Responsibilities 3, 5 and 6 above are not in the WHMIS legislation. They are suggested here as important to the successful implementation of WHMIS on construction projects, and may be considered to fall under the employer's general duty in the Occupational Health and Safety Act to take every precaution reasonable in the circumstances for the protection of a worker (section 25(2)(h)).

What are the responsibilities of the constructor?

1. To ensure that all controlled products on the project are labelled.

2. To maintain and make available to workers, all MSDSs received from contractors and subcontractors at the project.
3. To train own workers about WHMIS and about the controlled products that the constructor brings on site.
4. To resolve any WHMIS-related conflicts among contractors and sub-contractors on site.

Responsibility 4 is not in the WHMIS legislation but is suggested as important to the successful implementation of WHMIS on construction projects. It may be considered to fall under the employer's general duty in the Occupational Health and Safety Act to take every precaution reasonable in the circumstances for the protection of a worker (section 25(2)(h)).

If a construction project is being carried out in an operating workplace (e.g. renovation to an existing plant) what are the responsibilities of the constructor and the client (i.e. the employer at the workplace)?

1. The client should give the constructor MSDSs for any controlled products in the client's workplace that the constructor's workers may be exposed to.
2. The constructor should ensure that all controlled products brought into the client's workplace by the constructor are labelled.
3. The constructor should give the client MSDSs for all controlled products that the constructor brings into the client's workplace.
4. The constructor must train his/her own workers respecting the controlled products used on the construction project, and the controlled products likely to be encountered in the client's workplace.

Note: In some cases the constructor and the client may be one and the same.

What training programs on WHMIS are available to people in construction?

The Construction Safety Association of Ontario (CSAO) offers 2 training programs on WHMIS. One is 5-8 hours in duration, and provides basic training for anyone in the construction industry. Wallet cards are issued to those who satisfactorily complete the performance reviews.

The second program is a 3-day workshop intended to provide the participants with a better understanding of the WHMIS program, and the training materials and support systems so that they can, in turn, train others. A certificate and wallet card are provided for successful completion of the workshops.

CSAO also provides educational materials to those who wish to develop or conduct their own training, or to workers who wish to expand their knowledge on an individual basis.

For more information on these WHMIS training programs contact the CSAO at 416-674-2726 or 1-800-781-2726.

How does WHMIS apply to construction materials such as sand, gravel or limestone?

The application of WHMIS to materials like sand, gravel and limestone is a special one. These materials meet the definition of a controlled product because of their silica content; however, because of their physical size and shape, they are not necessarily hazardous to worker health. For example, aggregate that is piled on a construction site or used in road building is not likely to endanger worker health or safety. On the other hand, aggregate that is being crushed and sized for use as an abrasive cleaner could endanger worker health because of the dust released during the processing of the aggregate.

Neither the federal nor provincial WHMIS legislation specifically addresses materials such as sand or gravel, which may or may not be hazardous depending upon the circumstances. It is therefore the *policy* of the regulators that the WHMIS requirements (labels,

MSDSs and training) will apply only when such materials are packaged or processed for a specific purpose as described above, and there is a likelihood of endangerment to worker health or safety.

7. Confidential Business Information

Confidential business information is protected under WHMIS. Both the supplier and employer can file a claim to be exempted from disclosing information normally required on a label or MSDS. The requirements respecting confidential business information are spread among several pieces of legislation, the Hazardous Materials Information Review Act (HMIRA); the Hazardous Materials Information Review Regulation (HMIRR); the Controlled Products Regulation (CPR); the Ontario Occupational Health and Safety Act (OHSA); and the Ontario WHMIS Regulation (Ont. Reg.).

This chapter provides an overview of the WHMIS requirements respecting confidential business information. More detailed information is available in the WHMIS Core Material, or from the

Hazardous Materials Information Review Commission
427 Laurier Avenue West, 7th Floor
Ottawa, ON
K1A 1M3
Telephone: 613-993-4331
Fax: 613-993-4686
E-mail: hmirc-ccrmd@hc-sc.gc.ca

Claims for Exemptions

What is confidential business information?

Confidential business information means technical information on a product or its manufacturing process that has economic value and that is usually known only to the producer.

What information can the supplier claim as confidential business information?

The supplier can claim 2 pieces of information (section 11(l) HMIRA):

1. the chemical identity or concentration of any ingredient of a controlled product; and
2. the name of any toxicological study that identifies any ingredient of a controlled product.

What information can the employer claim as confidential business information?

The employer can claim 4 pieces of information (section 20 Ont. Reg.):

1. the chemical identity or concentration of any ingredient of a controlled product;
2. the name of any toxicological study that identifies any ingredient of a controlled product;
3. the name of a controlled product; and
4. the name of a supplier.

Who decides if a claim for exemption is valid?

The Hazardous Materials Information Review Commission decides whether a claim for exemption is valid, and whether the proposed label and MSDS for the controlled product meet WHMIS requirements. The Commission is a federal agency reporting to the Minister of Health.

What steps should a claimant (i.e. a supplier or employer) take in order to file a claim?

1. Obtain and fill out a Claim for Exemption form. The form and instructions for filling it out are available from the Commission. The form includes a section where the information that is being claimed as confidential must be disclosed.

2. Calculate the fee for filing the claim and make out a certified cheque or money order in Canadian funds for the appropriate amount, payable to the Receiver General of Canada.
3. Make a copy of the label and MSDS for the controlled product in question (or submit originals).
4. Send the completed claim, the fee and the proposed label and MSDS by registered mail, or deliver in person, to the Commission (section 9 HMIRR).

What does the Commission do upon receiving the claim?

The Commission

1. gives the claimant a registry number;
2. publishes a notice in the Canada Gazette that a claim has been filed;
3. waits for written submissions from affected parties in response to the notice in the Canada Gazette;
4. reviews the claim and rules on its validity;
5. reviews the product label and MSDS to ensure that the health and safety information provided meets WHMIS requirements;
6. notifies the claimant, affected parties who made written submissions and enforcement agencies whether the claim has been accepted or rejected; and
7. publishes the decision in the Canada Gazette.

What factors are taken into account when deciding upon the validity of a claim?

The Commission must take the following factors into account (section 3 HMIRR and section 21 Ont. Reg.):

1. the number of people other than the claimant who know the information;

2. the measures taken by the claimant to protect the confidentiality of the information;
3. the economic value (actual or potential) of the information to the claimant;
4. the economic value of the information to the claimant's competitors; and
5. the amount of money and other resources invested by the claimant in order to develop the information.

Information on the above 5 factors must be provided by the claimant as part of the Claim for Exemption form (section 8 HMIRR).

Can a supplier sell a controlled product for which a claim is pending?

Yes. A supplier can sell or import a controlled product for which a claim has been filed, while withholding the information considered confidential, as long as the MSDS, and where applicable, the label, show the date the claim was filed and the registry number assigned to the claim (section 26(1) CPR).

The same requirements apply to an employer wishing to use a controlled product for which a claim has been filed (section 22(1) Ont. Reg.).

What must a claimant do if the claim for exemption is granted?

The claimant is required to revise the MSDS, and where applicable, the label, to include:

1. a statement that an exemption has been granted;
2. the date of the decision granting the exemption; and
3. the registry number assigned to the claim.

If the claimant is an employer, these requirements are in the Ontario Regulation, section 23. If the claimant is a supplier, these requirements are in the CPR, section 27.

What can a claimant do if the claim for exemption is rejected?

A claimant has 3 options:

1. accept the decision of the Commission and revise the MSDS, and where applicable, the label, to include the confidential business information that was the subject of the claim;
2. appeal the decision of the Commission; or
3. withdraw the product in question from the market without revealing the information considered confidential.

Can confidential business information be revealed?

Yes, in 2 circumstances. First, in an emergency, suppliers and employers must provide any information they have about a controlled product, including confidential business information, if a medical professional asks for that information in order to make a diagnosis or give treatment (section 30(1) CPR and section 24 Ont. Reg.).

Second, certain government officials have access to confidential business information where that access is necessary in order to administer or enforce legislation (section 46(2) HMIRA). For example, inspectors of the Ministry of Labour may need to know confidential business information from time to time. Consider a workplace where the following is true:

1. a chemical is used, to which exposure is strictly regulated under provincial occupational health and safety law; and
2. the identity of the chemical has been withheld from labels and material safety data sheets, on the grounds that that information is a trade secret.

In such a situation, an inspector would need to know the identity of the chemical, to ensure that worker exposure to it is properly controlled. The inspector would be able to find out the identity of the chemical through the Hazardous Materials Information Review Commission.

Appeals

Decisions of the Commission on claims for exemption can be appealed. An appeal can be launched by the owner of the confidential business information (i.e. the claimant), or by any other party, such as a worker, who may be affected by the Commission's decision.

Who hears an appeal?

Appeals are heard by Appeal Boards. Each Appeal Board is a 3 member panel that includes a representative of labour, a representative of industry and an independent chairman. The Commission appoints the chairman who in turn appoints the other 2 members from lists of potential candidates that have been submitted by labour and industry. Appeal Boards are completely independent of the Commission when deciding upon the outcome of an appeal.

What steps are involved in the appeal process?

1. The appellant files a statement of appeal with the Commission. The statement must be in writing and include the grounds for the appeal, any documents supporting the appeal and a filing fee.
2. The Commission convenes an Appeal Board in the province where the claimant carries on most of his or her business.
3. The Appeal Board reviews the ruling on the original claim or exemption, the statement of appeal and any supporting documents.
4. The Appeal Board rules on the appeal and notifies the claimant, the appellant and any other affected parties.
5. The ruling is published in the Canada Gazette.

Fees

The Commission is intended to be self-financing and therefore charges fees to cover the costs of reviewing claims for exemption and hearing appeals. *The fees presented here are for the first 3 years of the Commission's operation.*

What is the fee for filing a claim for exemption?

The fee for filing a claim can vary and depends on the type and amount of information being claimed. The explanation given here is a summary only and for full information claimants should refer to the *Claim for Exemption Instructions Guide*.

If the information being claimed is the name of the controlled product or the name of the supplier, the fee is \$1000.00 (section 5 HMIRR).

If the information being claimed is the identity or concentration of any ingredients, the basic fee is \$1200.00, plus \$100.00 for each additional ingredient, MSDS or label (section 4 HMIRR). These fees apply to claims that involve:

1. one controlled product containing one or more confidential ingredients;
2. more than one controlled product, all covered by a generic MSDS, and containing one or more confidential ingredients;
3. more than one controlled product, all of which contain the same confidential ingredient(s); and
4. any combination of confidential ingredients in any combination of controlled products.

If the information being claimed is the identity or concentration of any ingredients, plus any of the following,

1. the name of the controlled product,
2. the name of the supplier, or
3. the name of any toxicological study that identifies that ingredient,

there is no fee in addition to the one for ingredient identity or concentration (section 6 HMIRR).

The fees for small businesses are half of the above (section 7 HMIRR). A small business is defined as

1. having 100 or fewer employees, and
2. having a gross annual revenue of \$3,000,000 or less in the previous fiscal year.

What is the fee for filing an appeal?

It costs \$2000.00 to file an appeal (section 12 HMIRR). Changes to section 12 of the HMIRR have been proposed that will reduce the appeal fee for small businesses and for certain affected parties, such as an individual worker who is not a member of a trade union.

8. WHMIS and the Transportation of Dangerous Goods: A Comparison

The requirements under WHMIS and under the Transportation of Dangerous Goods (TDG) legislation are for complementary information systems. TDG legislation sets out information requirements for products being shipped to and from workplaces. WHMIS applies to products inside workplaces. No overlap is intended. One system takes over where the other leaves off.

Worker exposure to dangerous goods that are in transit is most likely to occur during an emergency such as a vehicle accident or spill. Therefore, information provided under TDG requirements addresses short-term exposures and uses symbols on labels and placards.

Worker exposure to controlled products in the workplace can occur in a wider variety of circumstances and over longer periods of time. WHMIS requirements are more extensive than TDG and include the use of explicit labels and material safety data sheets.

This chapter provides information on 3 areas:

1. the exemption from WHMIS for products that are handled or transported pursuant to TDG legislation;
2. the classification of products under WHMIS and TDG; and
3. the colour restrictions for WHMIS hazard symbols to avoid confusion with TDG safety marks.

WHMIS Exemption for Products Covered by TDG

The WHMIS legislation does not apply to products being "handled or transported" under TDG legislation. The following interpretations are given in order to clarify when TDG requirements apply.

- **"Handling and offering for transport"** refer to activities such as assembling, packaging, storing, loading and unloading for transport. For example, WHMIS does not apply to products that are in temporary storage in a distribution warehouse, that is, in a warehouse that is operated solely as a trans-shipment point.
- **"Storing for transport"** is storage in which goods will not be handled any further at the workplace other than to load them directly onto a transport vehicle for the purposes of removal from the workplace.
- **"Transportation"** generally means to and from workplaces. WHMIS applies to all circumstances where goods are transported from one point to another *within* a workplace, except for radioactive substances and explosives, in which case TDG applies.

In general, the exemption for products being transported means that an employer in the transport industry does not have to provide WHMIS labels, material safety data sheets or education to drivers of vehicles transporting controlled products. An exception arises if a driver is exposed to a controlled product by being actively involved in its loading or unloading, for example, while filling an oil or gasoline tanker truck. In such cases, a driver should have access to a data sheet at the point of loading or unloading, and should undergo training.

Controlled Products Not Covered by TDG

It is possible to have a product that is covered by WHMIS but not TDG. This will likely be the case for controlled products in WHMIS Class D, Division 2 - Materials Causing Other Toxic Effects. There may be some confusion about the requirements that apply to these products while they are in temporary storage in a distribution warehouse. At present, it is the policy of the regulators that a WHMIS label on the outside of a container is all that is necessary for in-transit storage of controlled products not requiring a TDG label.

WHMIS and TDG Classification Systems

The classification of products under WHMIS and TDG is similar but not identical. WHMIS has 6 Classes, designated A to F and TDG has 9 Classes, designated 1 to 9. WHMIS Classes A to E have comparable Classes in TDG, but Class F has no equivalent in TDG. On the other hand, TDG has 2 Classes that have no equivalent in WHMIS, namely, Class 1, Explosives and Class 7, Radioactive Materials. An overview of the classes used in the two systems is shown in Figure I.

Figure I. Classes in WHMIS and TDG: An Overview

WHMIS	TDG
CLASS A COMPRESSED GASES	CLASS 1 EXPLOSIVES Divisions 1-5 differentiated on the basis of hazard
CLASS B FLAMMABLE AND COMBUSTIBLE MATERIAL Division 1: Flammable Gases Division 2: Flammable Liquids Division 3: Combustible Liquids Division 4: Flammable Solids Division 5: Flammable Aerosols Division 6: Reactive Flammable Materials	CLASS 2 COMPRESSED GASES Division 1: Flammable Gases Division 2: Non-flammable, Non-toxic, Non-corrosive Gases Division 3: Poisonous Gases Division 4: Corrosive Gases CLASS 3 FLAMMABLE LIQUIDS Divisions 1-3 differentiated on the basis of flashpoint and form of transport CLASS 4 FLAMMABLE SOLIDS, SPONTANEOUSLY COMBUSTIBLE, DANGEROUS WHEN WET Division 1: Flammable Solids Division 2: Substances Liable to Spontaneous Combustion Division 3: Substances Which Emit Flammable Gases on Contact with Water
CLASS C OXIDIZING MATERIAL	CLASS 5 OXIDIZING SUBSTANCES AND ORGANIC PEROXIDES Division 1: Oxidizing Substances Division 2: Organic Peroxides
CLASS D POISONOUS AND INFECTIOUS MATERIAL Division 1: Materials Causing Immediate and Serious Toxic Effect Division 2: Materials Causing Other Toxic Effects Division 3: Biohazardous Infectious Material	CLASS 6 POISONOUS AND INFECTIOUS SUBSTANCES Division 1: Poisonous Substances Division 2: Infectious Substances
CLASS E CORROSIVE MATERIAL	CLASS 7 RADIOACTIVE MATERIALS CLASS 8 CORROSIVES
CLASS F DANGEROUSLY REACTIVE MATERIAL	CLASS 9 MISCELLANEOUS PRODUCTS OR SUBSTANCES Division 1 :Miscellaneous Dangerous Goods Division 2: Environmentally Hazardous Substances Division 3: Dangerous Waste

Colour Restrictions for WHMIS Hazard Symbols

Under the Controlled Products Regulation, hazard symbols on the WHMIS supplier label must be "in a colour that is not likely to create confusion" with a safety mark required by TDG legislation (section 22(b)). These four rules will help prevent confusion between the two systems.

1. The colour orange must not be used for any WHMIS symbol because it is reserved for TDG Class 1, Explosives.
2. The WHMIS symbol may be in the same colour(s) required under TDG for that product. For example, the TDG background colour for most flammables is red, and for oxidizers, yellow. It is permissible to use red for WHMIS Class B, Flammable and Combustible Material, and yellow for Class C, Oxidizing Materials.
3. Except for the colour orange, the WHMIS symbol may be in any colour(s) not required under TDG for that pictogram. For example, TDG does not use colours such as brown, purple, etc. These colours can be used for WHMIS symbols.
4. The WHMIS symbol must not be in a colour combination that is possible under TDG for that pictogram but not permitted by TDG for the product. For example, one TDG colour combination for the cylinder pictogram is green on white, which applies to non-flammable, non-toxic, non-corrosive compressed gases. The pictogram for WHMIS Class A, Compressed Gases, is the cylinder. The combination green and white must not be used in WHMIS for any compressed gas which is flammable, toxic or corrosive.

The application of rules 1-4 permits the use of black on white for all WHMIS hazard symbols, except that the cylinder pictogram used to depict a non-corrosive compressed gas must not be a solid black cylinder on a white background. A black outline of a cylinder is acceptable.

Figure II summarizes the colour restrictions for each of the WHMIS hazard symbols.

Figure II.

Colour Restrictions for WHMIS Hazard Symbols

WHMIS Class	Hazard Symbol	Restrictions*
A	Cylinder	Green and white cannot be used if gas is flammable, poisonous (toxic) or corrosive. A solid black cylinder on white background may only be used, if the gas is corrosive.
B	Flame	Yellow cannot be used. Blue may only be used for a product that emits flammable gases on contact with water.
C	Flame with an "O"	Red and blue cannot be used.
D	1. Skull and Crossbones 2. Stylized "T" 3. Biohazard	No restrictions except as noted below (*). No restriction, except as noted below (*). No restriction, except as noted below (*).
E	Corrosive	No restriction, except as noted below (*).
F	Stylized "R" (Dangerously Reactive)	No restriction, except as noted below (*).

* *The colour orange must not be used for any WHMIS Class because it is reserved for TDG Class 1, Explosives.*

9. WHMIS and the Ontario Ministry of Labour

In Ontario, the Ministry of Labour is responsible for the administration and enforcement of both the federal and provincial WHMIS legislation. This is the result of an agreement between the federal and provincial governments that only the latter would enforce the legislation so that employers and suppliers would not be subject to inspections by both federal and provincial inspectors. This means that for the purpose of enforcing WHMIS, inspectors of the Ministry's Operations Division have the duty to monitor compliance with the Hazardous Products Act, the Controlled Products Regulation, the Occupational Health and Safety Act and the Ontario WHMIS Regulation.

It should be pointed out that the above is true only for workplaces under provincial jurisdiction. For federal workplaces such as banks, post offices and airports, inspectors from Human Resources and Skills Development Canada's Labour Program will enforce the WHMIS legislation.

Enforcement of Ontario's WHMIS Legislation

To enforce the provincial WHMIS legislation, inspectors will primarily be checking that controlled products are properly labelled or identified, that material safety data sheets are present in the workplace, and that worker education programs have been carried out. Inspectors will monitor compliance with WHMIS during the course of their regular workplace health and safety inspections, or during the investigation of related complaints, accidents or work refusals.

Where non-compliance is found, the inspector will enforce the WHMIS legislation by issuing an order to correct the violation within

a specified time period. This is no different than the way in which all other occupational health and safety legislation has been enforced to date.

Ontario's WHMIS legislation gives the inspector one new power, and that is the power to stop the use of a particular controlled product.

For a violation of the WHMIS provisions in either the Occupational Health and Safety Act or Ontario's WHMIS Regulation, the penalties on summary conviction are the same as the penalties for any other violation of the Act or its regulations, namely, a fine of up to \$25,000 and/or a term of up to 12 months in jail.

Enforcement of the Federal WHMIS Legislation

To enforce the federal WHMIS legislation, inspectors will primarily be checking that supplier labels and material safety data sheets have been provided and that they meet the content and design requirements outlined in Chapter 3 of this guide. If judgements need to be made about the classification of a controlled product, or about the accuracy of technical information on the MSDS, these will generally be referred by the inspector to scientific or medical staff located in the district offices or at the head office.

Inspectors will monitor compliance with the federal legislation during routine inspections of the supplier's workplace, and in response to particular questions or complaints from employers who buy controlled products from the supplier.

Where non-compliance with the federal legislation is found, the inspector will use the enforcement tools available under the Hazardous Products Act. These are different than the enforcement tools available under the Occupational Health and Safety Act. Specifically, under the Hazardous Products Act the inspector does not have the power to issue an order to a supplier for a violation of the federal WHMIS legislation. The inspector would first give the supplier the opportunity to comply voluntarily. If unsuccessful, the inspector would use the "power of seizure" to achieve compliance, and in some cases prosecution would also be pursued. These actions are explained below.

Voluntary Compliance

After being informed of a particular violation of either the Hazardous Products Act or the Controlled Products Regulation, the supplier has several options to correct the violation. For example,

1. removal from sale - the supplier can withdraw the controlled product in question from sale until the violation is corrected;
2. recall - the supplier can stop selling and recall a controlled product that has already been distributed. This may involve return of the product for correction, or correcting the violation on site;
3. disposal - if the supplier does not want to correct the violation, the supplier can dispose of the controlled product in question. Disposal can take place at the supplier's workplace or at the customer's workplace if the product has already been distributed.

The Power of Seizure

If the supplier does not agree to any of the above courses of action, the inspector has the power to seize the controlled product (section 22(1)(e) of the Hazardous Products Act). The inspector is likely to use this power in cases where the nature of the violation warrants strict control of the product.

The inspector can have the seized product stored on site or removed and stored elsewhere. Once seized, the supplier is not allowed to change or interfere in any way with the controlled product unless permitted to do so by the inspector.

Within two months of the seizure, the supplier can apply to a Provincial Court judge to have the controlled product returned. In so doing, the supplier has to provide evidence that the supplier is entitled to have the controlled product returned, for example, evidence that the violation that led to the seizure has been corrected. Whether the controlled product is returned to the supplier depends upon the evidence presented to the Provincial Court judge and also on whether the Ministry of Labour intends to prosecute the supplier in addition to seizing the controlled product.

Prosecution

Prosecution of the supplier is an action that would be considered in the following circumstances:

- a violation of the Hazardous Products Act or Controlled Products Regulation that presents a serious risk to worker health or safety;
- interference with a controlled product that has been seized;
- obstruction of an inspector;
- repeated violations, usually despite repeated warnings; and
- where other enforcement options have proven unsuccessful.

The penalties on summary conviction are a fine of up to \$100,000 and/or a term of up to 6 months in jail. On proceedings by way of indictment, a fine of up to \$1,000,000 and/or a term of up to 2 years in jail may be imposed.

10. Frequently Asked Questions

Do I require an MSDS and a label for a can of "WD-40" that was purchased at the local hardware store?

No. Aerosol cans sold and packaged as retail products are classified as restricted consumer products under Part II of Schedule I of the Hazardous Products Act. Restricted consumer products do not require a WHMIS label and data sheet as a condition of sale. Additionally, the Ontario WHMIS regulation exempts employers from having to acquire a label and MSDS for any consumer product that is purchased from a retail outlet.

Does this exemption still apply if I receive my WD-40 from an industrial supply house?

Yes. As long as the restricted consumer product is sold to the employer in the same packaging that is available to the general public it is exempt from the WHMIS requirements. If the packaging is different than that available to the public, and if the product is a controlled product it will require a WHMIS label and MSDS as a condition of sale.

A contract janitorial service does the cleaning in our office. Who is responsible for training the cleaning staff?

The owner or employer of the janitorial service is responsible for training his or her employees regarding the controlled products they use. If the cleaning staff work in proximity to any controlled products used in the office, then the owner or employer of the office would be required to give information about the products to the janitorial service. The employer of the janitorial service would then be required to train his or her employees on these additional controlled products.

If I use a pesticide in my workplace are there any WHMIS requirements that I have to comply with?

If the pesticide is also a controlled product, the employer is required to train the workers who use or work in proximity to the pesticide. Additionally, any time the product is transferred into another container, such as a sprayer, a workplace label would be required for the second container.

If our company makes a controlled product for our own use, do we have to make supplier labels and data sheets if we ship this product to another one of our plants?

No. A shipment of a controlled product within a company organization is not considered to be sale or distribution as defined by the Hazardous Products Act, therefore, supplier labels would not be required. The employer is responsible for producing a workplace label and an MSDS.

Do all individual samples of blood being sent to an independent laboratory for analysis require labelling?

If the blood samples are classified as controlled products each individual sample would require a label. The label required for these samples would have to meet the lab sample label requirements.

Are controlled products that are shipped from an American parent company to a Canadian subsidiary required to be labelled?

Shipments between American and Canadian divisions of a company are not considered to be internal transfers. As such the Canadian division is required to meet the duties of an importer under the Hazardous Products Act. This means that supplier labels and MSDSs are required before the product can be used or sold in Canada.

As a manufacturer of a controlled product that is only sold as a bulk shipment, am I still required to produce a label for my product?

Not if you do not want to. The information required on the label does have to be transmitted, however, this can be accomplished by putting the information on the material safety data sheet or in a separate letter.

Do fire extinguishers require WHMIS labels?

Depending upon what type of extinguisher it is, a fire extinguisher may be classified as a controlled product. Many extinguishers will meet the compressed gas criteria and will therefore require a WHMIS label. Additionally, the characteristics of the extinguishing medium need to be addressed.

Are the reagents in a medical diagnostic kit considered to be controlled products?

No. Under the Food and Drug Act anything used in the diagnosis of a disease meets the definition of a drug. Medical diagnostics fall within this definition and therefore do not require a label or data sheet under the Hazardous Products Act.

Does any mode of identification in the WHMIS regulations include size and shape?

Yes. If the worker education program enabled a worker to identify a controlled product by the size or shape of its container, then this would be satisfactory. As an example, process piping in a plant could be identified by diameter, e.g. 4" or 10" diameter pipe.

If a drug that is a controlled product is produced in my factory, do I have to make an MSDS even though the drug is covered by the Food and Drug Act?

An MSDS has to be made for your own workers exposed to the drug during its manufacture. No MSDS is required in order to sell the drug to another workplace.

If data sheets from other countries have all of the required data on them, do they meet the WHMIS requirements?

Although many data sheets from foreign suppliers appear quite detailed, this alone may not be sufficient. The Controlled Products Regulation requires that data sheets be structured with nine categories of information. Unless data sheets address the information required in these nine areas, they do not meet the requirements of Federal law.

Am I required to make an MSDS for a compressed air system I use in a paint spray booth?

If the pressure in the compressed air system meets the requirements for inclusion in Class A compressed gas, then a data sheet has to be prepared.

We make plating solutions in-house for our own use. If we have data sheets from our suppliers, do we still have to make an MSDS for the solution we make up?

Yes. Provincial law requires that an employer produce a data sheet for controlled products that are made for in-house use. The plating solutions are a combination of two or more chemicals. The properties of the solution will be different than the properties of the individual chemicals used to make up the plating solution. The data sheets from the suppliers can be used as a starting point for the preparation of the in-house data sheet.

Lab technicians at my plant deal with over 5000 chemicals. Do I have to train each technician on each and every chemical?

No. The training program allows for flexibility in the type of training provided to workers. Lab workers, as an example, may be trained on groups or families of chemicals with similar properties. The training program may also require that the first step in any analytical procedure is to consult the MSDS for the chemicals to be used. The success of the training program would be judged by whether or not the lab technician could work safely with any chemical he/she was asked to use.

Am I allowed to turn the training program over to the worker side of the Health and Safety Committee and ask them to develop it?

Under the Occupational Health and Safety Act, the employer has a clear responsibility to provide training to his/her workers. If the employer so wishes, he/she may delegate the development and implementation of the training program to the Health and Safety Committee. It must be emphasized that this in no way relinquishes the employer from fulfilling his/her duties to ensure that the training is developed and provided.

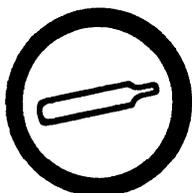
Do volunteer workers at a hospital require training regarding any controlled products they may use?

No. Training on the use of controlled products is only required for workers under the Occupational Health and Safety Act. As volunteers do not meet the definition of a worker, no training is legally required. However, employers are strongly encouraged to train volunteers who handle controlled products, or are exposed to any other potential workplace hazards. Although not legally required, providing such training can only be considered part of being a responsible employer.

11. Appendices

Appendix I – WHMIS Classes and Hazard Symbols

CLASS A



Compressed
Gas

CLASS B



Flammable and
Combustible
Material

CLASS C

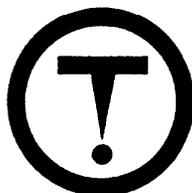


Oxidizing
Material

CLASS D



1. Materials
Causing Immediate
and Serious
Toxic Effects



2. Materials
Causing Other
Toxic Effects



3. Biohazardous
Infectious Materials

CLASS E



Corrosive
Material

CLASS F



Dangerously
Reactive Material

Appendix II – WHMIS Supplier Label

<p>METHANOL</p> <p>DANGER POISON FLAMMABLE VAPOUR HARMFUL MAY CAUSE BLINDNESS IF SWALLOWED</p> <p>Keep away from heat, sparks and flame. No smoking. Container must be grounded when being emptied. Vapour may travel long distance. Avoid contact with eyes and skin. Do not inhale vapours or mist. Do not take internally. Harmful if absorbed through the skin.</p> <p>FIRST AID: In case of contact, immediately flush eyes and skin with plenty of water for at least 15 minutes.</p> <p>If swallowed, induce vomiting by sticking finger down throat, or by giving soapy water to drink. Repeat until vomit is clear.</p> <p>If affected by vapour, move to fresh air.</p> <p>If breathing has stopped, apply artificial respiration.</p> <p>GET MEDICAL ATTENTION IMMEDIATELY.</p> <p>PRECAUTIONS: Wear chemical goggles and resistant gloves. Wash thoroughly after handling. Use with enough ventilation to keep below TLV. Keep container closed. Never use pressure to empty container.</p>	 	<p>METHANOL</p> <p>DANGER POISON INFLAMMABLE VAPEURS NOCIVES PEUT PROVOQUER LA CÉCITÉ, SI AVALÉ</p> <p>Garder loin de la chaleur, des étincelles et de la flamme. Ne pas fumer. Brancher le contenant à une prise de terre avant de le vider de son contenu. Les vapeurs peuvent s'étendre sur de longues distances. Éviter tout contact avec les yeux et la peau. Ne pas respirer les vapeurs. Ne pas absorber. Nocif, si absorbe par la peau.</p> <p>PREMIERS SOINS: En cas de contact avec les yeux ou la peau, laver à grande eau pendant au moins 15 minutes. Si avalé, provoquer le vomissement en introduisant un doigt dans la gorge ou en faisant absorber de l'eau savonneuse à la victime. Répéter jusqu'à cessation du vomissement.</p> <p>Sortir au grand air, si indisposé par les vapeurs.</p> <p>Si la respiration est interrompue, recourir à la respiration artificielle.</p> <p>OBTENIR DES SOINS MÉDICAUX IMMÉDIATS.</p> <p>PRÉCAUTIONS: Porter des lunettes protectrices (pour produits chimiques) et des gants résistants. Se laver minutieusement après usage. Utiliser dans un endroit bien aéré, afin de maintenir le niveau de vapeurs tolérable. Garder le contenant fermé. Ne jamais user de pression en vidant le récipient.</p>
<p>SEE MATERIAL SAFETY DATA SHEET FOR PRODUCT VOIR FICHE SIGNALÉTIQUE</p>		
<p>ABC Company Anytown, Ontario Telephone 123-4567</p>		

Appendix III – WHMIS MSDS

<u>Category/Section</u>	<u>Information Item</u>
1. Product Information	<ul style="list-style-type: none">• Product identifier• Product use• Manufacturer's name, street address, city, province, postal code and emergency telephone number• Supplier identifier and the supplier's street address, city, province, postal code and emergency telephone number• Product identification number (PIN)
2. Hazardous Ingredients	<ul style="list-style-type: none">• Information required by subparagraphs 13(a)(i) to (iv) or paragraph 14(a) of the Hazardous Products Act• CAS number• LD₅₀ (species and route)• LC₅₀ (species and route)
3. Physical Data	<ul style="list-style-type: none">• Physical state (gas, liquid or solid)• Odour and appearance• Odour threshold• Vapour pressure• Vapour density• Evaporation rate• Boiling point• Freezing point• pH• Specific gravity• Coefficient of water/oil distribution

<u>Category/Section</u>	<u>Information Item</u>
4. Fire or Explosion Hazard	<ul style="list-style-type: none"> • Conditions of flammability • Means of extinction • Flashpoint and method of determination • Upper flammable limit (% by volume) • Lower flammable limit (% by volume) • Auto-ignition temperature • Hazardous combustion products • Explosion data – sensitivity to mechanical impact • Explosion data – sensitivity to static discharge
5. Reactivity Data	<ul style="list-style-type: none"> • Conditions under which the product is chemically unstable • Name of any substance or class of substance with which the product is incompatible • Conditions of reactivity • Hazardous decomposition products
6. Toxicological Properties	<ul style="list-style-type: none"> • Route of entry, including skin contact, skin absorption, eye contact, inhalation and ingestion • Effect of acute exposure to product • Effect of chronic exposure to product • Exposure limits • Irritancy of product • Sensitization to product • Carcinogenicity • Teratogenicity • Reproductive toxicity • Mutagenicity • Name of toxicologically synergistic products

<u>Category/Section</u>	<u>Information Item</u>
7. Preventive Measures	<ul style="list-style-type: none"> • Personal protective equipment to be used • Specific engineering controls to be used • Procedures to be followed in case of leak or spill • Waste disposal • Handling procedures and equipment • Storage requirements • Special shipping information
8. First Aid Measures	<ul style="list-style-type: none"> • Specific first aid measures
9. Preparation Information	<ul style="list-style-type: none"> • Name and phone number of group, department or party responsible for preparation of MSDS • Date of preparation

Appendix IV – Employer Compliance Checklist

There are many tasks facing the employer who is trying to comply with WHMIS. The following checklist will help the employer to identify these tasks. The list contains questions that can be answered either "yes" or "no". A question answered with a "no" may identify an area requiring attention. Please note that not all questions may be relevant to all employers.

General

- Do you know which materials in your workplace are controlled products?
 - Have you evaluated all biological and chemical agents produced in-house for your own use against the criteria in Part IV of the Controlled Products Regulation to see which ones are controlled products?
 - Have you written out this evaluation and made a copy available to workers and the joint health and safety committee, if any, or a worker representative?
-

Labelling and Identification

- Do all containers of controlled products received from a supplier have a supplier label?
- Do all containers of controlled products produced for internal use have workplace labels?
- Do you have workplace labels on controlled products that have been decanted from the original supplier container into another container?

- Have you applied either a supplier or a workplace label to the containers of controlled products received as bulk shipments?
 - Have you posted a placard with workplace label information for any controlled product not in a container?
 - Have you identified all controlled products (except intermediates) that are in pipes, process or reaction vessels, tank cars, etc.?
 - Is all hazardous waste that is generated and stored on site identified?
-

MSDSs

- Do you have supplier MSDSs on file for all controlled products received from a supplier?
 - Have you made MSDSs for all controlled products that you produce for internal use, and for all controlled products received before March 15, 1989, for which you have been unable to obtain a supplier MSDS?
 - Are all your MSDSs dated within the last 3 years?
 - Do workers have easy access to MSDSs?
 - Does the joint health and safety committee, if any, or a worker representative have copies of all MSDSs?
-

Worker Education

- Did you consult your joint health and safety committee when developing the worker education program?
- Have all affected workers been trained?

- Do workers know what WHMIS is?
 - Are the content and significance of information on a WHMIS label understood?
 - i.e. - What is a hazard symbol?
 - What do you do if there is no label?
 - Are the content and significance of information on the MSDS understood?
 - Do workers know the proper procedures for the safe handling of controlled products?
 - i.e. - Have procedures for the safe handling of controlled products been developed?
 - What protective equipment needs to be worn?
 - What other controls are used to minimize exposure or risk?
 - Do workers know what to do in an emergency?
 - Do workers know what to do in areas where fugitive emissions are present?
 - Do workers know how to safely store and handle hazardous wastes?
 - For controlled products received from a supplier, are you aware of any differences in hazard information from the supplier label and MSDS, and have you explained these differences to your workers?
 - Have workers been trained respecting controlled products in pipes, reaction or process vessels, tank cars etc.?
 - Do you have a mechanism for reviewing the worker education program once a year?
-

Appendix V – Ministry of Labour Occupational Health and Safety Contact Information

Call the Ministry of Labour Health and Safety Contact Centre

- Report incidents, critical injuries or fatalities
If it's an emergency, call 911 immediately
- Report possible unsafe work practices
- General occupational health and safety inquiries

Ministry of Labour Health and Safety Contact Centre
1-877-202-0008

Other Ways to Contact the Ministry of Labour

- E-mail: webohs@ontario.ca
- Regional Offices:
www.labour.gov.on.ca/english/about/reg_offices.php

**Appendix VI – Regulations made under the
Occupational Health and Safety Act, Revised Statutes of
Ontario, 1990, Chapter O.1 as amended**

A list of current regulatory initiatives is available on the Ministry of
Labour website at www.labour.gov.on.ca



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