

Data sheets are key requirement for system

One of the key requirements in the Workplace Hazardous Material Information System is that suppliers of hazardous material must provide a material safety data sheet (MSDS).

Employers are required to make the MSDS available to employees at each worksite. All employees should know where the MSDS is kept and how to access it.

In essence, the MSDS (step two in the three-step system to make sure the people using this material in the workplace have the information they need) provides information about the product, and cites recommended handling procedures and first-aid procedures. These sheets should be read before the product is used, then kept for future reference.

The exact format for these data sheets is not specified under WHMIS, but there are nine "information sections" that must be covered on each MSDS.

The following information was prepared by Dell Tech Laboratories Ltd., a chemical consulting firm:

SECTION I: PRODUCT INFORMATION

1. Product Name or identifier.
2. Manufacturer or supplier's name, address and emergency phone number.
3. Product use.
4. Preparer's name.
5. Date (cannot be older than three years).

SECTION II: HAZARDOUS INGREDIENTS

1. Hazardous ingredients by name.
2. Chemical Abstracts Number (CAS) if available.
3. LD50 and LC50 values if available and TLV value.

CAS: This registry number is a unique and universal number assigned to a chemical. The number is cited when someone is looking for additional information on the chemical.

LD50: The Lethal Dose of a material that will kill 50 per cent of the animals it is given to. Application is either by feeding or applied to skin. The lower the number, the more poisonous the material.

LC50: The Lethal Concentration in

breathing air that will kill 50 per cent of the animals in the test. The lower the number, the more dangerous the material.

SECTION III: PHYSICAL DATA

Form: Gas, Liquid or solid.

Appearance: Color, thickness, etc.

Odor: This information helps to identify if you have the right material or if it has changed in any way. If it is different or has changed, it should not be used.

Specific Gravity: How heavy a material is relative to: water 1. If the specific gravity is less than 1, it is lighter than water and may float on water if spilled.

Vapor Pressure/Boiling Point: If a material has a high vapor pressure and/or low boiling point, it usually means that the liquid will evaporate quickly and can contaminate breathing air. It also means that dangerous pressure may build up in closed containers when set in the sun or near a heat source.

Vapor Density: If vapor density is less than air, it will rise up and dissipate. If it is greater than air, vapor will settle and collect in low areas.

pH: A pH of close to 7 (6.5-8) means the material is neutral like pure water. It is neither acidic or alkaline. The lower the pH below 7, the more acidic is the liquid. The higher the pH above 7, the more alkaline is the material. Both acids and alkalis can be corrosive.

SECTION IV: FIRE AND EXPLOSION DATA

Flash Point/Auto Ignition Point: The lower the value, the more likely it is to ignite or explode.

UEL (UFL) Upper Explosive Limit (Upper Flammability Limit).

LEL (LFL) Lower Explosive Limit (Lower Flammability Limit): The wider the range between UEL and LEL, the more likely it is to produce an explosive or combustible mixture with air.

Dangerous Gases: Some materials produce toxic or dangerous gases when they burn.

Fire Extinguishing Procedures: The right chemicals or procedures to put out the fire.

mixing vessels, pipes or containers of hazardous materials or waste generated in the workplace.

These workplace labels may be simpler than a supplier label (which must meet strict standards), but must have:

- Product identification.
- Safe handling procedures.
- Reference to a Material Safety Data Sheet.

New containers used must be labelled

When a company decants (transfers) hazardous materials from a supplier-labelled container into another container, the new container must be labelled with a workplace label (created by the company using the materials).

Workplace labels are also required for any containers without a label that were shipped in by a supplier,

What is hazardous?

How can you tell if a product you are manufacturing or using is a controlled product (hazardous material)?

Workplace Hazardous Materials Information System (WHMIS) regulations established criteria for identifying hazardous materials. The criteria is listed in the Hazardous Products Act.

There are six classes of controlled products cited in the act. If your product meets the detailed criteria listed under one or more of the six classes, then it is a controlled product. While there are six classes, there are eight categories. The eight WHMIS symbols represent the eight categories.)

The classes are:

- (A) Compressed Gas;
- (B) Flammable and Combustible Material;
- (C) Oxidizing Material;
- (D) Poisonous and Infectious Material (three categories: 1. Poisonous - immediate; 2. Toxic and, 3. Biohazardous Infectious Material);
- (E) Corrosive;
- (F) Dangerously Reactive Material.

The act lists specific tests for some

classes. For example, if you need to determine if a product is a flammable liquid, you follow the test procedure cited in the act.

Once a supplier determines he has a controlled (hazardous) product, he turns to the Ingredient Disclosure List (IDL).

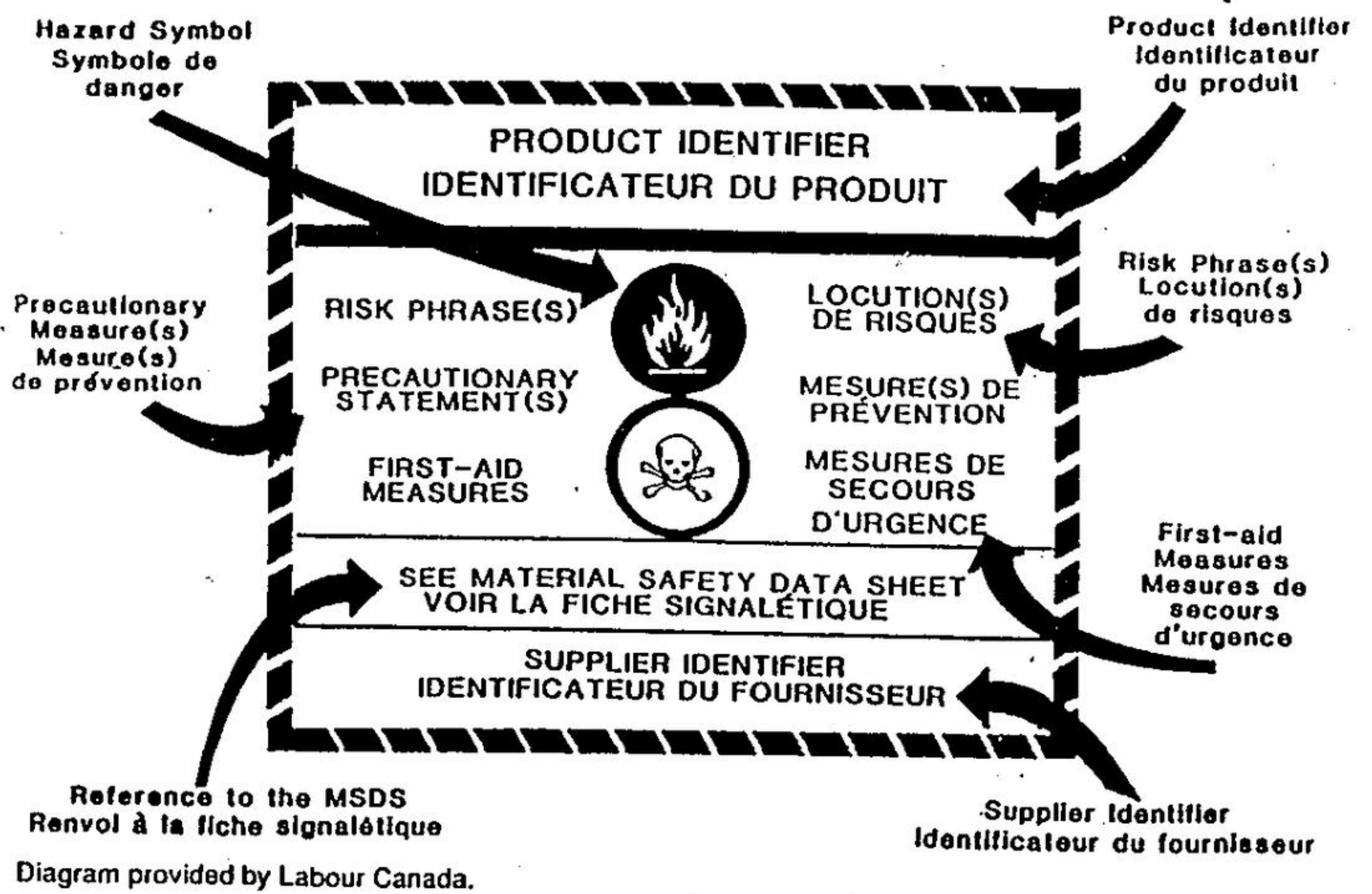
There are 1,736 chemicals listed on the IDL. If the supplier is using any of them, they must be listed on the material safety data sheet (MSDS) that the supplier must provide his customers with.

Under WHMIS, a supplier of a controlled product must place a special label (there are specific rules to follow) on the product as well as preparing a MSDS.

WHMIS rules for suppliers are set out in: the Controlled Products Regulations, the Hazardous Materials Information Review Regulations, the Ingredient Disclosure List and an amendment to the Canada Occupational Safety and Health Regulations.

These regulations were published in the Jan. 20, 1988 edition of Part II of the Canada Gazette and can be obtained from the Canadian Government Publishing Centre, Ottawa, Canada, K1A 0S9, or by calling (819) 997-2560.

ACCEPTABLE FORMAT FOR THE SUPPLIER LABEL



Special Precautions: Will it ignite, or explode from sparks or being dropped, compressed, etc?

SECTION V: REACTIVITY DATA
Other substances that will react with it and the hazardous bi-products produced as well as the conditions under which the reaction normally takes place.

SECTION VI: TOXICOLOGICAL DATA

Toxicology Information: Describes the results, immediate (acute) or long term (chronic), from ingesting or absorbing the toxic materials, and suggested exposure limits if any.

SECTION VII: PREVENTATIVE MEASURES

Handling Information: Recommended safe procedures when working with hazardous materials. Gloves, eye protection or required

breathing protection (respirators), are listed. It will tell you if the workplace must be ventilated or enclosed or if temperature or humidity must be regulated.

Shipping, storage and waste disposal information is also provided as well as procedures for leak, spill or accident.

SECTION VIII: FIRST-AID PROCEDURES

First Aid: How to handle exposure to a hazardous or toxic material as a first response procedure.

SECTION IX: ADDITIONAL INFORMATION

Additional Material: Will contain additional information the supplier thinks is important for the safe handling of the product.

May contain preparation information, date, etc., as well as shipping numbers and names or where to obtain additional information.

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Suppliers must use labels

For years, various companies have placed labels on hazardous materials for the workplace. The amount and usefulness of the information varied as there were no national standards to meet.

Now there are.

As the first step in a new three-step program designed to provide the people who work with hazardous materials with the information they need, suppliers of these materials now have national standards to follow.

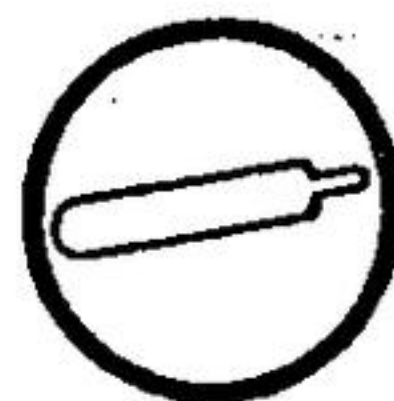
Under the Workplace Hazardous Materials Information System, suppliers have to use a label with a special border. The information on that label must be bilingual and include: the supplier's name, product identification, one or more precautionary statements, one or more first-aid statements and a reference to a material safety data sheet (step two in the program).

Each label must also include at least one special symbol. Eight symbols have been designated, under WHMIS, for this purpose. All eight have a round border.

The symbols include:

COMPRESSED GAS

The symbol indicates there is pressure inside the container. If the container is damaged, it may rupture or explode.



FLAMMABLE, COMBUSTIBLE (Gas/Liquid, Solid)

Readily ignites or burns or may be explosive in some situations. This material may react with water to produce a flammable gas.



OXIDIZER

This material produces oxygen or contributes to oxidizing or burning of another substance.



POISONOUS (Immediate Serious Effect)

Material will act quickly to produce serious effects or death if it enters the body.



TOXIC

Will produce less serious or less immediate effects if it enters the body. Immediate effects can include eye or skin irritation or respiratory inflam-



mation. Long-term effects can damage, eventual include chronic cancer, birth defect or sterility.

BIOHAZARDOUS

Material likely to infect the body with disease.



CORROSIVE

Likely to corrode metals or cause burns to skin or eyes. Most likely a liquid, but can be a solid or a gas.



DANGEROUSLY REACTIVE

Material will react dangerously with other materials or is unstable. May react with water to produce dangerous gases. May undergo violent chemical reactions, heating up, jarring, or exploding under certain conditions.

