

# WHMIS

## WHMIS - Safety Data Sheet (SDS)

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## Important Information

Canada has aligned the Workplace Hazardous Materials Information System (WHMIS) with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

This document discusses the WHMIS supplier requirements as regulated by the federal legislation – the *Hazardous Products Act* and the *Hazardous Products Regulations* (HPR). This document reflects the Hazardous Products Regulations requirements as of December 15, 2022. The changes introduced in December 2022 are in force. Suppliers are granted a 3-year transition period (to December 15, 2025) to bring product classifications, safety data sheets and labels into compliance with the amendments.

For most workplaces, the most notable impact will be seen in the changes to the flammable gases class, and the new class of chemicals under pressure.

Health Canada is the government body responsible for the overall WHMIS supplier-related laws. Note that WHMIS is also regulated in the workplace by the provinces, territories and federal (for federally regulated workplaces) governments under their occupational health and safety legislation. While these jurisdictions based their WHMIS regulations on a common model, small variations between jurisdictions may exist.

Suppliers and employers must use and follow the WHMIS requirements for labels and safety data sheets (SDSs) for hazardous products sold, distributed, or imported into Canada.

Please refer to the following OSH Answers documents for more information about WHMIS:

- [WHMIS – General](#)
- [WHMIS – Pictograms](#)
- [WHMIS – Labels](#)
- [WHMIS – Hazard Classes and Categories](#)
- [WHMIS – Education and Training](#)
- [WHMIS – WHMIS Program](#)
- [WHMIS – Glossary](#)
- [WHMIS – Confidential Business Information \(CBI\)](#)
- [WHMIS – Variances](#)
- [WHMIS – Laboratories](#)
- [WHMIS - Information for Suppliers and Importers](#)
- [WHMIS - Legislation](#)

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## What is a safety data sheet (SDS)?

Safety Data Sheets (SDSs) are summary documents that provide information about the hazards of a product and advice about safety precautions. SDSs are usually written by the manufacturer or supplier of the product, and must be provided by the suppliers of the hazardous products at the time of sale. In some circumstances, an employer may be required to prepare an SDS (e.g., when the product is produced and used exclusively in that workplace).

SDSs provide more detailed hazard information about the product than the label. They are an important information resource for workplaces and workers about the product(s) used. Use this information to identify the hazards of the products you use, and follow the recommended safe handling and emergency measures to protect workers from those hazards.

SDSs tell users what the hazards of the product are, how to use the product safely, what to expect if the recommendations are not followed, how to recognize symptoms of exposure, and what to do if emergencies occur.

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## Do I need an SDS?

If a product covered by the *Hazardous Products Act* meets the criteria to be classified in a hazard class or category as listed in the *Hazardous Products Regulation*, it is considered to be a "hazardous product".

Every product classified as a "hazardous product" under WHMIS that is intended for use, handling or storage in a workplace in Canada must have an SDS. (Products exempted from WHMIS are listed in Schedule 1 or Section 12 of the *Hazardous Product Act*).

Note that employers who produce hazardous products for use in their own workplaces must meet the requirements for suppliers, including creating an SDS for their workers.

The information elements provided on a safety data sheet must be in both official languages of Canada (English and French). The SDS may be provided as one bilingual SDS, or as two SDSs (one each in English and French). In situations where two separate SDSs are used, both the English and French parts must be provided to the purchaser at the same time. Providing an SDS in only English or French would not meet the requirements of the *Hazardous Products Regulations* (i.e., would not be in compliance).

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## What information is on the SDS?

The *Hazardous Products Regulations* (HPR) specify the sections and content for the SDS. Schedule 1 within the *Hazardous Products Regulations* outlines the section number and heading that must be presented in the specified order, as follows:

SDS Section and Heading		Specific Information Elements
1	Identification	<ul style="list-style-type: none"> <li>• Product identifier (e.g., Product name)</li> <li>• Other means of identification (e.g., product family, synonyms, etc.)</li> <li>• Recommended use</li> <li>• Restrictions on use</li> <li>• Canadian supplier identifier+ <ul style="list-style-type: none"> <li>◦ Name, full address and phone number(s)</li> </ul> </li> <li>• Emergency telephone number and any restrictions on the use of that number, if applicable++</li> </ul>
2	Hazard identification	<ul style="list-style-type: none"> <li>• Hazard classification (class, category or subcategory) of substance or mixture or a description of the identified hazard for Physical or Health Hazards Not Otherwise Classified</li> <li>• Label elements: <ul style="list-style-type: none"> <li>◦ Symbol (image) or the name of the symbol (e.g., flame, skull and crossbones)</li> <li>◦ Signal word</li> <li>◦ Hazard statement(s)</li> <li>◦ Precautionary statement(s)</li> </ul> </li> <li>• Other hazards which do not result in classification (e.g., molten metal hazard)</li> </ul> <p>NOTE: Information elements are specified directly in the <i>Hazardous Products Regulations</i> for: combustible dusts, simple asphyxiants, physical hazards not otherwise classified, chemicals under pressure, biohazardous infectious materials, and health hazards not otherwise classified.</p>

SDS Section and Heading		Specific Information Elements
3	Composition/Information on ingredients	<ul style="list-style-type: none"> <li>When a hazardous product is a material or substance: <ul style="list-style-type: none"> <li>Chemical name</li> <li>Common name and synonyms</li> <li>Chemical Abstract Service (CAS) registry number and any unique identifiers</li> <li>Chemical name of impurities, stabilizing solvents and/or additives*</li> </ul> </li> <li>For each material or substance in a mixture that is classified in a health hazard class**: <ul style="list-style-type: none"> <li>Chemical name</li> <li>Common name and synonyms</li> <li>CAS registry number and any unique identifiers</li> <li>Concentration</li> </ul> </li> </ul> <p>NOTE: Confidential business information rules can apply</p>
4	First-aid measures	<ul style="list-style-type: none"> <li>First-aid measures by route of exposure: <ul style="list-style-type: none"> <li>Inhalation</li> <li>Skin contact</li> <li>Eye contact</li> <li>Ingestion</li> </ul> </li> <li>Most important symptoms and effects (acute or delayed)</li> <li>Immediate medical attention and special treatment needed, if necessary</li> </ul>
5	Fire-fighting measures	<ul style="list-style-type: none"> <li>Suitable extinguishing media</li> <li>Unsuitable extinguishing media</li> <li>Specific hazards arising from the hazardous product (e.g., hazardous combustion products)</li> </ul>

SDS Section and Heading		Specific Information Elements
		<ul style="list-style-type: none"> <li>• Special protective equipment and precautions for fire-fighters</li> </ul>
6	Accidental release measures	<ul style="list-style-type: none"> <li>• Personal precautions, protective equipment and emergency procedures</li> <li>• Methods and materials for containment and cleaning up</li> </ul>
7	Handling and storage	<ul style="list-style-type: none"> <li>• Precautions for safe handling</li> <li>• Conditions for safe storage (including incompatible materials)</li> </ul>
8	Exposure controls/ Personal protection	<ul style="list-style-type: none"> <li>• Control parameters, including occupational exposure guidelines or biological exposure limits and the source of those values</li> <li>• Appropriate engineering controls</li> <li>• Individual protection measures (e.g., personal protective equipment)</li> </ul>
9	Physical and chemical properties	<ul style="list-style-type: none"> <li>• Physical state</li> <li>• Colour</li> <li>• Odour</li> <li>• Melting point and Freezing point</li> <li>• Boiling point, or initial boiling point and boiling range</li> <li>• Flammability</li> <li>• Lower flammability or explosion limit</li> <li>• Upper flammability or explosion limit</li> <li>• Flash point</li> <li>• Auto-ignition temperature</li> <li>• Decomposition temperature</li> <li>• pH</li> <li>• Kinematic viscosity</li> <li>• Solubility</li> </ul>

SDS Section and Heading		Specific Information Elements
		<ul style="list-style-type: none"> <li>• Partition coefficient - n-octanol/water</li> <li>• Vapour pressure</li> <li>• Density and relative density</li> <li>• Relative vapour density</li> <li>• Particle characteristics</li> </ul>
10	Stability and reactivity	<ul style="list-style-type: none"> <li>• Reactivity</li> <li>• Chemical stability</li> <li>• Possibility of hazardous reactions</li> <li>• Conditions to avoid (e.g., static discharge, shock, or vibration)</li> <li>• Incompatible materials</li> <li>• Hazardous decomposition products</li> </ul>
11	Toxicological information	<p>A concise but complete description of the various toxic health effects and the data used to identify those effects, including:</p> <ul style="list-style-type: none"> <li>• Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)</li> <li>• Symptoms related to the physical, chemical and toxicological characteristics</li> <li>• Delayed and immediate effects, and chronic effects from short-term and long-term exposure</li> <li>• Numerical measures of toxicity, including acute toxicity estimates (ATEs)</li> </ul>
12	Ecological information***	<ul style="list-style-type: none"> <li>• Ecotoxicity</li> <li>• Persistence and degradability</li> <li>• Bioaccumulative potential</li> <li>• Mobility in soil</li> <li>• Other adverse effects</li> </ul>

SDS Section and Heading		Specific Information Elements
13	Disposal considerations***	Information on safe handling for disposal and methods of disposal, including any contaminated packaging
14	Transport information***	<ul style="list-style-type: none"> <li>• UN number</li> <li>• UN proper shipping name</li> <li>• Transport hazard class(es)</li> <li>• Packing group</li> <li>• Environmental hazards</li> <li>• Special precautions</li> </ul>
15	Regulatory information***	Safety, health and environmental regulations specific to the product
16	Other information	Date of the latest revision of the SDS

+The supplier that must be identified on an SDS is the initial supplier identifier (i.e., the name, address and telephone number of either the Canadian manufacturer or the Canadian importer). There are two exceptions to this requirement. 1) In a situation where a hazardous product is being sold by a Canadian distributor, the distributor may replace the name, address and telephone number of the initial supplier with their own contact information. 2) In a situation where an importer imports a hazardous product for use in their own workplace in Canada (i.e., the importer is not selling the hazardous product), the importer may retain the name, address and telephone number of the foreign supplier on the SDS instead of replacing it with their own contact information.

++The emergency telephone number is a telephone number that will allow the caller to get information about the hazardous product. This number does not have to be a Canadian telephone number. Any restrictions on the use of that number must be stated (e.g., days and hours of operation). If the language spoken at the telephone number is neither English nor French, this should be indicated on the SDS as part of the restrictions on the use of the number.

\*These impurities and stabilizing products are those that are classified in a health hazard class and contribute to the classification of the material or substance.

\*\*Each ingredient in the mixture must be listed when it is classified in a health hazard class and is present:

- above the concentration limit that is designated for the hazard class in which it is classified, or



- in the mixture at a concentration that results in the mixture being classified in any health hazard class.

Each ingredient present in mixtures at concentrations above the relevant cut-off levels set for its category or subcategory must be disclosed, regardless of whether the hazardous ingredient contributes to the classification of the mixture as a hazardous product.

\*\*\*Sections 12 to 15 require the headings to be present, but under Canadian regulations, the supplier has the option not to provide information in these sections.

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## How may a supplier provide the SDS to their customers?

A supplier will provide the SDS, in English and French, to the purchaser of the hazardous product either in hard copy (e.g., by mail, hand delivered, etc.) or by electronic means. Acceptable electronic delivery methods include an e-mail from the supplier to the purchaser with the SDS attached, or a USB on which the SDS is saved and given to the purchaser. If the English and French portions of the SDS are two separate parts, both the English and French parts must be attached in the same email or saved on the same USB stick.

Note: It is not acceptable to provide an SDS by only providing the purchaser of the hazardous product with a website address or hyperlink from which the purchaser may download the SDS for the hazardous product that they purchased.

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## When does the SDS need to be updated?

The *Hazardous Products Act* and regulations require that SDSs be accurate at the time of sale. An SDS will be required to be updated when the supplier becomes aware of any "significant new data". The definition of "significant new data" is:

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

This definition means that an SDS must be updated when new information changes how the hazardous product is classified or when you change how you will handle, store, or protect yourself from its hazards.

SDSs must be updated within 90 days of the supplier becoming aware of the new information. If you purchase a product within this 90-day time period, the supplier must provide an SDS plus a document stating the changes to the SDS that are required as a result of the significant new data and the date on which the data became available.

Note: The Hazardous Products Act and regulations no longer require suppliers to update a safety data sheet every three years, as was the case under WHMIS 1988. Suppliers have an ongoing responsibility to ensure that SDSs and labels are accurate and compliant at the time of every sale or importation of the hazardous product.

Note: Your jurisdiction regulates the requirement for the employer to update or obtain updated SDSs in the workplace.

- The SDS must be updated within 90 days when significant new information becomes available in Alberta, Manitoba, New Brunswick, Ontario, Prince Edward Island, and Quebec
- The employer must actively seek an updated SDS every three years in workplaces regulated by federal WHMIS legislation (i.e., under *Canadian Occupational Health and Safety Regulations*), British Columbia, Saskatchewan, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, and Yukon. The employer should ask the supplier for written confirmation if the SDS content has not changed or if an updated SDS is not available. If the employer is aware of significant new information, the employer must add this data to the existing SDS.

Check with your [jurisdiction](#) for more information.

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## How will I know if an SDS has been updated?

Every SDS must provide a date of last revision in Section 16 – Other Information. You will know if an SDS has been updated by checking this date, and comparing it to the one on any previous SDS you have.

Note that there is no requirement for the supplier to provide an updated SDS to past purchasers of a hazardous product. However, it continues to be good practice to provide this information to purchasers who may still be using the product.

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## As an employer, do I have responsibilities for SDSs?

Yes. Employers will be required to make sure that all hazardous products (as defined by the *Hazardous Products Regulations*) have an up-to-date SDS when it enters the workplace. The SDSs must be readily available to the workers who are exposed to the hazardous product, and to the health and safety committee or representative.

Employers may computerize the SDS information as long as:

- all workers have access to and are trained on how to use the computer or device,
- the computers or devices are kept in working order, and

- the employer makes a hard copy of the SDS available to the worker or health and safety committee/representative upon request.

As mentioned, in some circumstances, an employer may be required to prepare an SDS (e.g., when the product is produced and used in the workplace).

If the employer is aware of significant new information, the employer must add this information to the existing SDS.

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## Why is my SDS so hard to understand?

SDSs have many different audiences, including occupational hygienists and safety professionals, employers, supervisors, nurses, doctors, emergency responders, and workers. To ensure that SDS users can quickly find the information that they need, information directed toward these various users will be listed in specific sections. Having a set format will make it easier to find the information you need on every SDS. Your health and safety committee or representative, health and safety specialist, occupational health nurse or family doctor, supervisor, employer, or supplier should be able to help you understand the SDS.

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## Is all the information I need on the SDS?

Not necessarily. A lot of health hazard information, for example, is written in general terms. In addition, SDSs are often written for many different uses or applications of the product, and the handling and safety precautions may not be specific to your workplace. Your health and safety committee or representative, health and safety specialist, occupational health nurse or family doctor, supervisor, employer, or supplier should be able to help you find more information if needed.

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## What does "not available" or "not applicable" mean when I see these on the SDS?

With the exception of Sections 12-15, the supplier is required to provide information on each specific information element required on the SDS. In some cases, it may be appropriate for the supplier to state "not available" or "not applicable" instead of providing the specific information.

- "Not available" means that the information could not be located or does not exist. For example, if the supplier cannot locate any studies that describe the odour, which is reported in Section 9 of the SDS, the supplier would report "not available".
- "Not applicable" means that the information element is not relevant. For example, if the product is odourless, then the odour would be reported as "Not applicable".

Note that the supplier should not use the abbreviation "n.a." or "NA" without defining it, as it could mean "not applicable" or "not available" or something entirely different.

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## As a worker, when would I use an SDS?

Always be familiar with the hazards of a product **before** you start using it. You should look at an SDS, match the name of the product on the container to the one on the SDS, know the hazards, understand safe handling and storage instructions, as well as understand what to do in an emergency.

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

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

For most people who work with hazardous products, you should always:

- read the name of the chemical (Section 1),
- know the hazards (Section 2),
- understand safe handling and storage instructions (Section 7), and
- understand what to do in an emergency (Sections 4, 5 and 6).

A few things to know:

- Make sure that the product is being used in the way the manufacturer intended; otherwise, the advice provided on the SDS and label may not apply, or the protective measures listed may not be adequate. Section 1 of the SDS should describe the typical use of the product and may indicate restrictions. Ask your supervisor or a health and safety professional for advice if the way you use the product does not match the SDS.
- Section 2 will summarize the hazards related to the product, precautions to take, and what to do in an emergency. Understand that the SDS covers information about the potential hazards, but may not be specific about the required safe work procedures needed for your workplace (e.g., the SDS may not specify what type of respirator must be used, just that a respirator is needed). More information can be found by asking your supervisor. These decisions may require the help of a safety professional or someone with chemical safety knowledge.

## Disclaimer

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