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# WHMIS 2015 - Safety Data Sheet (SDS)

**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 requirements after the alignment of WHMIS with the GHS. Information in this document is based on the federal legislation – the amended <u>Hazardous Products Act (http://laws-lois.justice.gc.ca/eng/acts/H-3/)</u> and the new <u>Hazardous Products Regulations (http://laws-lois.justice.gc.ca/eng/regulations/SOR-2015-17/index.html)</u> (HPR).

Health Canada is the government body responsible for making the required changes to the overall federal WHMIS-related laws. Note that WHMIS-related occupational health and safety regulations for the provinces, territories and federally regulated workplaces will also require updating.

While much is known with the federal legislation updates, legislative updates for each provincial or territorial jurisdiction may affect some of the information in this document.

The WHMIS 2015 legislation is currently in force. "In force" means that suppliers may begin to use and follow the new requirements for labels and safety data sheets (SDSs) for hazardous products sold, distributed, or imported into Canada. However, there is a transition period with various stages. At the outset of the transition period, the supplier must fully comply with either the repealed Controlled Products Regulations (WHMIS 1988) or the HPR (WHMIS 2015) for a specific controlled or hazardous product. The classification, label and (material) SDS must comply fully with the specific regulation chosen by the supplier, and not be a combination of the two.

Please refer to the following OSH Answers documents for information about WHMIS 2015:

- WHMIS 2015 General (http://www.ccohs.ca/oshanswers/chemicals/whmis\_ghs/general.html)
- WHMIS 2015 Pictograms (http://www.ccohs.ca/oshanswers/chemicals/whmis\_ghs/pictograms.html)
- WHMIS 2015 Labels (http://www.ccohs.ca/oshanswers/chemicals/whmis\_ghs/labels.html)
- WHMIS 2015 Hazard Classes and Categories (http://www.ccohs.ca/oshanswers/chemicals/whmis\_ghs/hazard\_classes.html)
- WHMIS 2015 Education and Training (http://www.ccohs.ca/oshanswers/chemicals/whmis\_ghs/education\_training.html)
- WHMIS 2015 WHMIS Program (http://www.ccohs.ca/oshanswers/chemicals/whmis\_ghs/program.html)
- WHMIS 2015 Glossary (http://www.ccohs.ca/oshanswers/chemicals/whmis\_ghs/glossary/)
- WHMIS 2015 Confidential Business Information (CBI) (http://www.ccohs.ca/oshanswers /chemicals/whmis\_ghs/cbi.html)
- WHMIS 2015 Variances (http://www.ccohs.ca/oshanswers/chemicals/whmis\_ghs/variances.html)

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## What is a 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. 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 resource for workplaces and workers to help you learn more about the product(s) used. Use this information to identify the hazards of the products you use and to protect yourself from those hazards, including safe handling and emergency measures.

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.

## Do I need an SDS?

Every product that is classified as a "hazardous product" under WHMIS that is intended for use, handling or storage in a workplace in Canada must have an SDS.

## What information is on the SDS?

The Hazardous Products Regulations specifies the sections and content for the SDS, as follows:

SI	SDS Section and Heading Specific Information Elements				
1	Identification	<ul> <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> <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> <li>Hazard classification (class, category) of substance or mixture or a description of the identified hazard for Physical or Health Hazards Not Otherwise Classified</li> <li>Label elements:         <ul> <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>			
3	Composition/Information on ingredients	<ul> <li>When a hazardous product is a material or substance:         <ul> <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> <li>Chemical name</li> <li>Common name and synonyms</li> <li>CAS registry number and any unique identifiers</li> <li>Concentration</li> </ul> </li> <li>NOTE: Confidential business information rules can apply</li> </ul>			

4 First-	aid measures	<ul> <li>First-aid measures by route of exposure:         <ul> <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, if necessary</li> </ul>
5 Fire-f	fighting measures	<ul> <li>Suitable extinguishing media</li> <li>Unsuitable extinguishing media</li> <li>Specific hazards arising from the hazardous product (e.g., hazardous combustion products)</li> <li>Special protective equipment and precautions for fire-fighters</li> </ul>
6 Accid	dental release sures	<ul> <li>Personal precautions, protective equipment and emergency procedures</li> <li>Methods and materials for containment and cleaning up</li> </ul>
7 Hand	dling and storage	<ul> <li>Precautions for safe handling</li> <li>Conditions for safe storage (including incompatible materials)</li> </ul>
	osure controls/ onal protection	<ul> <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> <li>Appearance (physical state, colour, etc.)</li> <li>Odour</li> <li>Odour threshold</li> <li>pH</li> <li>Melting point/Freezing point</li> <li>Initial boiling point/boiling range</li> <li>Flash point</li> <li>Evaporation rate</li> <li>Flammability (solid; gas)</li> <li>Lower flammable/explosive limit</li> <li>Upper flammable/explosive limit</li> <li>Vapour pressure</li> <li>Vapour density</li> <li>Relative density</li> <li>Solubility</li> <li>Partition coefficient - n-octanol/water</li> <li>Auto-ignition temperature</li> <li>Decomposition temperature</li> <li>Viscosity</li> </ul>
10 Stability and reactivity	<ul> <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	Concise but complete description of the various toxic health effects and the data used to identify those effects, including:  • Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)  • Symptoms related to the physical, chemical and toxicological characteristics  • Delayed and immediate effects, and chronic effects from short-term and long-term exposure  • Numerical measures of toxicity
12Ecological information***	<ul> <li>Ecotoxicity</li> <li>Persistence and degradability</li> <li>Bioaccumulative potential</li> <li>Mobility in soil</li> <li>Other adverse effects</li> </ul>

13 Disposal considerations***	Information on safe handling for disposal and methods of disposal, including any contaminated packaging
14 Transport information***	<ul> <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>Transport in bulk, if applicable</li> <li>Special precautions</li> </ul>
15 Regulatory information***	Safety, health and environmental regulations specific to the product
16Other information	Date of the latest revision of the SDS

<sup>+</sup>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. In a situation where a hazardous product is being sold by a distributor, the distributor may replace the name, address and telephone number of the initial supplier with their own contact information. 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.

# When is the SDS updated?

SDSs are required to be accurate at the time of sale. An SDS will be required to be updated when the supplier becomes aware of any "significant new data". The definition of "significant new data" is:

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

<sup>\*</sup>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.

<sup>\*\*</sup>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 is present in the mixture at a concentration that results in the mixture being classified in any health hazard class.

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

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

SDSs will be required to be updated within 90 days of the supplier being aware of the new information. If you purchase a product within this 90 day time period, the supplier must inform you of the significant new data and the date on which it became available in writing.

# 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.

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

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).

# 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.

## 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.

# 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 measure the odour threshold, 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 threshold 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.

# 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.

You can think of the 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.

# What format should MSDSs/SDSs follow during the transition period?

The Hazardous Products Regulations were published in *Canada Gazette*, Part II on February 11, 2015. Both the amended Hazardous Products Act and new regulations are currently in force. "In force" means that suppliers may begin to use and follow the new requirements for labels and SDSs for hazardous products sold, distributed, or imported into Canada.

During the transition period, the supplier must fully comply with either the repealed Controlled Products Regulations (WHMIS 1988) or the HPR (WHMIS 2015) for a specific controlled or hazardous product. The classification, label and (material) SDS must comply fully with the specific regulation chosen by the supplier, and not be a combination of the two.

As such, during the transition period, you may receive hazardous products that follow either WHMIS 1988 or WHMIS 2015 requirements.

For more information about the transition period, please see the <u>WHMIS 2015 - General (http://www.ccohs.ca/oshanswers/chemicals/whmis\_ghs/general.html)</u> OSH Answers.

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(http://www.ccohs.ca/ccohs/contacting.html)

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How can we make our services more useful for you? <u>Contact us (http://www.ccohs.ca/ccohs/contacting.html)</u> to let us know.

## **Related Products and Services**

You may also be interested in the following related products and services from CCOHS:

#### Courses

WHMIS 1988 for Workers (http://www.ccohs.ca/products/courses/whmiscourse/)

WHMIS 2015 for Workers (http://www.ccohs.ca/products/courses/whmis\_workers/)

#### **Software**

CANWrite (http://www.ccohs.ca/products/canwrite/)

WHMIS 2015 Pictograms Kit (Downloads) (http://www.ccohs.ca/WHMISpictograms.html)

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