WHMIS 2015 – Laboratories Fact Sheet

WHMIS 2015 – LABORATORIES

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 2015 requirements as regulated by the federal legislation – the Hazardous Products Act and the new Hazardous Products Regulations (HPR).

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 the common model, small variations between jurisdictions may exist in how they adopted WHMIS 2015.

Suppliers and employers must use and follow the new WHMIS 2015 requirements for labels and safety data sheets (SDSs) for hazardous products sold, distributed, or imported into Canada.

Does WHMIS 2015 apply in laboratories?

Yes. WHMIS applies to hazardous products that are used, handled, or stored in all Canadian workplaces, including those found in laboratories. However, there are some unique circumstances that can apply to hazardous products in a laboratory setting. Some of these situations are treated differently with respect to hazard communication requirements – each of the following situations will be discussed in this document:

- products purchased for laboratories
- small containers
- decanted products
- hazardous products developed in a laboratory
- laboratory samples
- biohazardous infectious materials

Other situations may also be relevant in a laboratory. For situations not covered by this document, please consult with the WHMIS regulations and/or your jurisdiction for more information.

Note that while in certain circumstances some hazardous products may be exempt from the WHMIS requirements for a label and/or SDS, employers must still provide education and training on the hazards, safe use, and storage of these products.

What should I know about products purchased for laboratories?

Laboratories often use a variety of hazardous products. Unless an exemption applies, as outlined below, these products must be provided with WHMIS 2015 supplier labels and safety data sheets (SDSs). Suppliers will readily provide these documents to laboratories when products are purchased.

It is a good practice to have an up-to-date inventory of all laboratory products, and to fully review each SDS that arrives to ensure that workers are fully trained to safely handle, use, and store these products.

What labelling requirements apply for small containers?

Supplier labels for hazardous products in small containers may carry less information. Containers with a capacity of 100 ml or less are not required to have hazard statements or precautionary statements on the label.

Labels on containers with a capacity of 3 ml or less can be designed to be removed at the work place if the label interferes with the normal use of the product. The label must remain durable and legible while the product is stored and transported.

Figure 1 – Example of a Small Container Label

What requirements apply when labelling decanted products?

Decanting is a common laboratory practice where a hazardous product may be transferred or poured into another container. A workplace label is required:

- if the product is not used immediately,
- if more than one person will be in control of the product, or
- if the product is not used up during the shift in which it was decanted.

The following information must be present on a workplace label:

- Product name (matching the SDS product name).
- Safe handling precautions, may include pictograms or other supplier label information.
- A reference to the SDS (if available).

What should be done when hazardous products are developed in a laboratory?

If products developed in the laboratory will be used, handled, or stored in a workplace and if these products meet any of the criteria for the WHMIS 2015 hazard classes, the laboratory must classify the product hazards and provide a label and SDS.

For many newly created products, the hazards of the product may be unknown until testing is completed. In this case, the newly created product may be treated as a laboratory sample until it is analyzed and evaluated.

What requirements apply to laboratory samples?

For hazardous products sent to the laboratory for analysis or for products that are in the process of being developed, exemptions could apply if certain conditions are met. A laboratory sample is defined as a sample of a hazardous product that:

- is packaged in a container that contains less than 10 kilograms of the hazardous product,
- is intended solely to be tested in a laboratory, and
- does not include a sample that is to be used by a laboratory for testing other products or for educational or demonstration purposes.

Examples of laboratory samples include:

- samples for quality control testing,
- samples provided for the development of industrial processes,
- diagnostic specimens (e.g., blood or tissue samples), and
- industrial hygiene samples.

Laboratory samples do not require an SDS and have reduced label requirements if they are “bailed” and:

- the chemical name and concentration of the hazardous product or its ingredients are not known, or
- the hazardous product is not yet available on the market (i.e., has not been offered or exposed for transfer of ownership).

“Bailed” means transfer of possession without transfer of ownership. In this situation, the laboratory does not own the laboratory sample, but has possession of the sample while conducting testing on behalf of the owner.

When products are sent to a laboratory for analysis, it is not always clear how to label the samples because the owner of the sample may not yet know if a product is a hazardous product. It is expected that the owner of the sample will use their best judgement based on known information, and will label the sample accordingly.

At a minimum, a laboratory sample must be labelled with the following information (see also Figure xyz):

- the product identifier,
- the chemical name or generic chemical name of any material or substance in the sample that would have to be disclosed on an SDS, if it is known,
- the initial supplier identifier, and
- the statement “Hazardous Laboratory Sample. For hazard information or in an emergency call …” followed by an emergency telephone number for the person who can provide information that would be required on a SDS.

Figure 2 – Example of a Laboratory Sample Label

XYZ Sample
XYZ Company, 123 Anywhere St.,
Toronto, ON
Contains: Toluene
and Sulfuric Acid
Hazardous Laboratory Sample
For hazard information or in
an emergency call: (306) 555-5555

What are the requirements for Biohazardous Infectious Materials (BIMs)?

WHMIS 2015 has a hazard class for biohazardous infectious materials (BIMs).

BIMs are micro-organisms (e.g., bacteria, viruses, fungi, and parasites), nucleic acids, or proteins that cause or probably cause infection in people or animals. In Canada, hazardous products that meet the criteria for classification in this hazard class must have a nine-heading appendix to the SDS to provide information specific to the biohazard (see Table 1). This hazard class was retained from WHMIS 1988.

There are variations and exceptions that apply to labels and SDSs for BIMs used in the laboratory.

BIM SDS

A full supplier label and a 16-section SDS with a 9-section appendix is required when a laboratory receives a hazardous product that is classified as a BIM. This requirement applies to a hazardous product that is only classified as a BIM or that is classified as a BIM and another hazard class. The requirement is the same whether the BIM product was purchased or imported into the lab, or bailed from an owner.

Laboratory workers should be aware that there are Pathogen Safety Data Sheets available for pathogens at the Public Health Agency of Canada website. These PSDSs are technical documents that describe the hazardous properties of the pathogen and recommendations for work involving these agents in a laboratory setting. Note that work involving pathogens in Canada may require compliance with international, national, and provincial laws and guidelines.

Table 1
Additional information elements on SDS – Biohazardous Infectious Materials

Item	Heading	Specific Information Element
1	Section I – Infectious Agent	• Name • Synonym or cross-reference • Characteristics
2	Section II – Hazard Identification	• Pathogenicity/toxicity • Epidemiology • Host range • Infectious dose • Mode of transmission • Incubation period • Communicability
3	Section III – Dissemination	• Reservoir • Zoonosis • Vectors
4	Section IV – Stability and Viability	• Drug susceptibility/resistance • Susceptibility to disinfectants • Physical inactivation • Survival outside host
5	Section V – First Aid/Medical	• Surveillance • First aid/treatment • Immunization • Prophylaxis

6	Section VI – Laboratory Hazard	• Laboratory-acquired infections • Sources/specimens • Primary hazards • Special hazards
7	Section VII – Exposure Controls /Personal Protection	• Risk group classification • Containment requirements • Protective clothing • Other precautions
8	Section VIII – Handling and Storage	• Spills • Disposal • Storage
9	Section IX – Regulatory and Other Information	• Regulatory information • Last file update *(date)* • Prepared by *(name of author)*

Labels for laboratory samples of BIMs

There are exemptions that apply if the BIM is a laboratory sample (see Table 1). BIM laboratory samples have different SDS and/or label requirements in these situations:

Table 2
Biohazardous Infectious Materials – Laboratory sample exemptions for SDS and Label

Laboratory sample	Type	SDS	Supplier Label
Only classified as a BIM	Sold or imported (i.e., transfer of ownership)	No SDS required	Reduced label required
Only classified as a BIM	Bailed (transfer of possession, not ownership)*	No SDS required	No label required
Classified as BIM **and** any other hazard class	Sold, imported or bailed	Full 16-section SDS plus 9-section appendix required	Full label required

* Note that this exemption does not apply to cross-border shipments.

The reduced label requirements for a laboratory sample that is sold or imported and is only classified as a BIM are:

- the product identifier,
- the chemical name or generic chemical name of the BIM,
- the initial supplier identifier, and
- the statement “Hazardous Laboratory Sample. For hazard information or in an emergency call …” followed by an emergency telephone number for the person who can provide information that would be required on a SDS.

Hazardous wastes that are contaminated by BIMs are still treated as hazardous wastes and are exempt from WHMIS label and SDS requirements.