

WHMIS 2015 – Glossary – H-M Fact Sheet



WHMIS 2015 – COMMON TERMS

Note: This document explains common terms used in WHMIS 2015. Not all terms are listed here. These definitions are not intended to be a legal interpretation of legislatively defined terms. For legal definitions, consult the Hazardous Products Act (HPA), the Hazardous Products Regulations (HPR), and/or the legislation in your jurisdiction.

This glossary has three parts:

- A-G
- H-M
- N-Z

Handling and storage – the basic precautions to be followed when handling and for storing a hazardous product, or the basic equipment to be used during handling and storing.

Hazard – the potential for harmful effects. The hazards of a product are evaluated by examining the properties of the product, such as toxicity, flammability and chemical reactivity.

Hazard class – a way of grouping products together that have similar hazards or properties.

Hazard category – the subdivision within a hazard class that tells you about how hazardous the product is (the severity of hazard). Category 1 is always the greatest level of hazard (it is the most hazardous within that class). If Category 1 is further divided, Category 1A within the same hazard class is a greater hazard than category 1B. Category 2 within the same hazard class is more hazardous than category 3, and so on.

Hazard classification – the hazard class and category assigned to a hazardous product based on the comparison of the properties of the hazardous product with the criteria for each hazard class in the HPR.

Hazardous combustion product – hazardous substance(s) formed when the product burns. These substances may be flammable, toxic, reactive and/or have other hazards.

Hazard statement – a required phrase assigned to a category or subcategory of a hazard class that describes the nature of the hazard presented by a hazardous product.

Hazardous decomposition product – hazardous substance(s) that may be released when a product reacts with other substances, as a result of aging, reaction with airborne oxygen or moisture or exposure to light.

Hazardous ingredient – an ingredient in a mixture that, when evaluated as an individual substance according to the HPR, is classified in a category or subcategory of a health hazard class.

Hazardous product – a product, mixture, material or substance that meets the criteria to be classified in one or more of the hazard classes of the HPR.

Hazardous Products Act / Hazardous Products Regulations – The Hazardous Products Regulations (HPR) are Canadian federal regulations enabled by the Hazardous Products Act (HPA). They are part of the national Workplace Hazardous Materials Information System (WHMIS 2015), and replace the Controlled Products Regulations (CPR). The HPR applies to all suppliers (importers or sellers) in Canada of hazardous products intended for use, handling or storage in Canadian work places. The regulations specify the criteria for classification of hazardous products. They also specify what information must be included on labels and Safety Data Sheets (SDSs).

Health hazards not otherwise classified (HHNOC) – hazardous products classified in this hazard class have a health hazard that is different from any other health hazard addressed in the HPR. These hazards must have the characteristic of occurring following acute or repeated exposure and having an adverse effect on the health of a person exposed to it, including an injury, or resulting in the death of that person. If a product is classified in this hazard class, the hazard statement on the label and SDS will describe the nature of the hazard.

Health professional – as defined by the Hazardous Products Regulations, are

1. physicians who are registered and entitled under the laws of a province to practice medicine and who are practicing medicine under those laws in that province; and
2. nurses who are registered or licensed under the laws of a province to practice nursing and who are practicing nursing under those laws in that province.

HPA – the Hazardous Products Act. See “Hazardous Products Act / Hazardous Products Regulations”.

HPR – the Hazardous Products Regulations. See “Hazardous Products Act / Hazardous Products Regulations”.

IARC – IARC stands for the International Agency for Research on Cancer. IARC is an agency of the World Health Organization. IARC evaluates information to identify environmental factors that can increase the risk of human cancer. These factors include chemicals, complex mixtures, occupational exposures, physical agents, biological agents and lifestyle factors. IARC publishes lists of agents which are classified as carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), possibly carcinogenic to humans (Group 2B), or not classifiable as to its carcinogenicity to humans (Group 3).

IDLH – IDLH stands for Immediately Dangerous to Life or Health. For the purposes of respirator selection, the U.S. NIOSH defines the IDLH concentration as the airborne concentration that poses a threat of exposure to airborne contaminants when that

exposure is likely to cause death or immediate or delayed permanent adverse health effects or prevent escape from such an environment. The purpose of establishing an IDLH exposure concentration is:

- to ensure that the worker can escape from a given contaminated environment in the event of failure of the respiratory protection equipment, and
- is considered a maximum level above which only a highly reliable breathing apparatus providing maximum worker protection is permitted.

In the event of failure of respiratory protective equipment, every effort should be made to exit immediately.

Impervious – is a term used to describe protective gloves and other protective clothing. If a protective material is impervious to a substance, then that substance cannot readily penetrate through the material or damage the material. Different materials are impervious (resistant) to different substances. No single material is impervious to all substances. If a SDS recommends wearing impervious gloves, you need to know the specific type of material from which the gloves should be made.

Importer – is a person or company that brings a hazardous product into Canada for sale to, or use at, a work place. Importers have the same WHMIS responsibilities as suppliers. An employer can be an importer.

Incompatible materials – substances which, when combined with a hazardous product, could react to produce a hazardous situation (e.g., explosion, release of toxic or flammable materials, liberation of excessive heat).

Individual protection measures (or Personal protective equipment (PPE)) – the clothing or equipment that a worker handling a hazardous product wears to reduce or prevent exposure to the product. Individual protection measures may include coveralls, face shields, aprons, gloves or respirators. The exact type of gloves and respirators should be specified, e.g., “vinyl gloves” or “organic vapour cartridge respirator”.

Initial boiling point – the temperature of a liquid at which its vapour pressure is equal to the standard pressure of 101.3 kPa, (i.e., the temperature at which the first gas bubble appears).

Initial supplier identifier – the name, address and telephone number of the manufacturer or the importer of the hazardous product who operates in Canada.

Interactive effects – the potential effects from exposure to more than one substance at the same time. The effects of the individual substances may be increased or decreased due to the combined exposure.

Label – a group of written, printed or graphic information elements that relate to a hazardous product. The label is to be affixed to, printed on or attached to the hazardous product or the container in which the hazardous product is packaged.

Laboratory sample – a sample of a hazardous product that is packaged in a container that contains less than 10 kg of the hazardous product and that is intended solely to be tested in a laboratory. The definition of laboratory sample does NOT include a sample that is to be used:

- by the laboratory for testing other products, mixtures, materials or substances;
- or
- for educational or demonstration purposes.

LC50 (Lethal Concentration50) – the airborne concentration of a substance or mixture that causes the death of 50 per cent of the group of animals in tests that measure the ability of a substance or mixture to cause poisoning when it is inhaled. These tests are usually conducted over a 4-hour period. The LC50 is usually expressed as parts of test substance or mixture per million parts of air (ppm) for gases, or as milligrams of test substance or mixture per litre of air (mg/l) for dusts, mists or vapours.

LD50 (Lethal Dose50) – the single dose of a substance or mixture that causes the death of 50 per cent of the group of animals in tests that measure the ability of a substance or mixture to cause poisoning when it is swallowed (oral exposure) or absorbed through the skin (dermal exposure). The LD50 can vary depending on factors such as the species of animal tested and by the route of entry. The LD50 is usually expressed as milligrams of substance or mixture per kilogram of test animal body weight (mg/kg).

Local exhaust ventilation – see Ventilation.

Lower explosive limit (LEL) or Lower flammability limit (LFL) – the lowest concentration of a substance in air that will burn or explode when it is exposed to a source of ignition. At concentrations below the LEL, the mixture is “too lean” to burn or explode. The LEL is the same as the LFL. (See also “Upper explosive limit (UEL) or Upper flammability limit (UFL)”).

Manufacturer – a supplier who, in the course of business in Canada, manufactures, produces, processes, packages or labels a hazardous product and sells it.

Manufactured article – an article that:

- is formed to a specific shape or design during manufacture, the intended use of which is dependent in whole or in part on the shape or design, and
- will not release or otherwise cause an individual to be exposed to a hazardous product when being installed, if the intended use of the article requires it to be installed, or under normal conditions of use.

Examples of manufactured articles include a screwdriver, a refrigerator, or an empty cylinder.

Mechanical ventilation – see Ventilation.

Melting point – the temperature at which a solid product becomes a liquid. It is important to know the freezing or melting point for storage and handling purposes. For example, a frozen or melted product may burst a container. As well, a change of physical state could alter the hazards of the product. (See also “Freezing point”.)

Mixture – a combination of, or a solution that is composed of, two or more ingredients that, when they are combined, do not react with each other. (This definition does not include any such combination or solution that is a substance. (See also “Substance”.)

Mutagenicity – see Germ cell mutagenicity.

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