Procedure

Saskatoon & Area - Occupational Health & Safety

Number: 51-002

Title: Chemical Hazard:
Workplace Hazardous Material Information System (WHMIS) 2015

Saskatchewan Employment Act: Division 7, 3-47 - 3-51
OHS Regulation: Part 22, 22-1 to 22-15

Date: November 17, 2017
Date Revised/Reaffirmed: December 2, 2021

Purpose

To establish the processes to prevent the exposure of a worker to a hazardous product

Procedure

Manager/Supervisor:

- Ensure that all hazardous products regulated by Workplace Hazardous Material Information System (WHMIS) used in the workplace are identified, reviewed and risks assessed
- Ensure all workers are educated about the hazards and measures in place to minimize the exposure to these chemicals. Workers must be informed about the use, storage, handling and disposal hazardous products of a hazardous product.
- Training must be provided to all workers who use a hazardous product or who work in close proximity to the product. Train workers in safe work procedures for the safe use, storage, handling and disposal of hazardous products including procedures if fugitive emissions are present.
- When new processes or products are introduced, education and training is required for these products. All education and training must be documented in department training records. Workers must be educated and trained on the content, purpose and significance of information required on a supplier label, workplace label, and the Safety Data Sheet (SDS); the workers must be educated and trained on emergency procedures
- The education and training program must be reviewed at least annually. The Occupational Health Committee (OHC) must be consulted on the development of the education and training program and on the annual review
- Ensure that all containers are labeled. If a hazardous product is decanted to a new container, a workplace label must be affixed. If a label becomes illegible or is accidently removed, it must be replaced with a new supplier or workplace label. The label or the information on the label must be updated as soon as significant new data is supplied to the employer by the manager.
- If a hazardous product is produced at the worksite, a workplace label must be applied to the product
- If hazardous products are contained or transferred in or on a piping system or vessel, the pipe or vessel must be labelled and workers must be educated and trained in the safe use, storage, handling and disposal of the product
- Ensure that the SDS for a hazardous product is in an SDS Binder and is readily available to all staff
- During the transition between WHMIS 1988 and WHMIS 2015, MSDS's and SDS's must be kept in separate binders (until December 1, 2018)

- Review SDS's on a semi-annual basis and update, as required
- Update the SDS Binder on an annual basis
- Ensure the hazardous product is being used in the way the manufacturer intended
- If the supplier indicates there is new and/or significant information about the hazardous product, the new information must be added to the SDS as soon as possible, and no later than 90 days
- If a hazardous product is used in a workplace is three years old, if possible, obtain from the supplier an up-to-date SDS
- The most recent SDS sheet must be dated and signed as the most current information at the time of the review. If an up to date SDS cannot be obtained, the manager must add any significant new data to the existing SDS.
- If a hazardous product is received without an SDS, the product may be stored in the site/department while the manager/supervisor is actively seeking information required
- An updated SDS should be provided to the site/department by the supplier/manufacturer upon distribution of the hazardous product. If a SDS is not provided, the supplier/manufacturer should be contacted and an SDS sheet requested. A hazardous product should never be used or handled without a SDS.
- If there are any changes to the hazardous product within the SDS, this information must be reviewed with the employees in the department. If a department introduces any new hazardous products, or there is a change to any hazardous products, education and training on the safe use, storage, handling and disposal must be provided to the workers who use or are in close proximity to the product
- If a hazardous product is no longer used in the site/department the product must be removed from the department and disposed of following the disposal guidelines noted within the SDS. The SDS must also be removed from the SDS Binder.
- Supervise to ensure safe work process and procedures are followed and that personal protective equipment (PPE) is worn. The knowledge of workers must be regularly evaluated using written tests, practical demonstrations or other suitable means.

Worker:

- Follow safe work procedures in the safe handling, storage and use when working with hazardous products
- Is responsible to use PPE and report equipment or process failures to their supervisor and to the Safety Alert System/Incident Reporting Line
- If a hazardous product may be harmful to a pregnant worker or if a worker has become sensitized to the product, the worker must notify the manager/supervisor as soon as possible and the manager/supervisor must take steps to minimize exposure or to assign the worker to less hazardous alternate work if that work is available. The worker must report the product sensitivity to the Safety Alert System/Incident Reporting Line.

Non-Compliance/Breach:

Non-compliance with this policy will result in a review of the incident. A review for non-compliance may result in disciplinary action, up to and including termination of employment or privileges; fines and /or prosecution of individuals under the Saskatchewan Employment Act and OHS Regulations.

Resources

- Table 16, 17, 18 Appendix of Saskatchewan Occupational Health & Safety Regulations
- To obtain MSDS for a controlled product, go to the SHR OHS website and look for MSDS On-Line - http://infonet.sktnhr.ca/peopleandpartnerships/occupational-health-safety/Pages/Home.aspx
- For more information see - https://www.saskatchewan.ca/business/safety-in-the-workplace/hazards-and-prevention/workplace-hazardous-materials-information-system
- WHMIS Pictograms http://www.ccohs.ca/oshanswers/chemicals/whmis_ghs/pictograms.html

WHMIS 2015 Pictograms

Pictogram	Hazard Classes and Categories
 **Flame** (fire hazards)	There are many classes of flammable materials. Four of the classes are materials that are commonly encountered in the workplace: **flammable gases** (Category 1), **flammable aerosols** (Category 1 and 2)**, flammable liquids** (Category 1, 2, and 3)**,** and **flammable solids** (Category 1 and 2). These materials will burn if ignited by a spark, static discharge, or a hot surface (ie. a hot plate). Other classes that are not common in the workplace include: pyrophoric liquids, solids, and gases, self-heating substances and mixtures, substances and mixtures which, in contact with water, emit flammable gases, and organic peroxides. **Examples:** Propane(heating, cooking, car fuels), butane (fuel and aerosol propellant), acetylene (welding), acetone (industrial cleaners, degreasers), paint thinners, kerosene (solvent), gasoline (fuel, solvent), toluene (industrial solvent)
 **Flame over circle** (oxidizing hazards)	The flame over circle pictogram is used for the following classes and categories: **oxidizing gases** (Category 1)**, oxidizing liquids** (Category 1, 2, and 3)**,** and **oxidizing solids** (1, 2, and 3)**.** Oxygen is necessary for a fire to burn, therefore, they do not usually burn by themselves but will increase the intensity of a fire and can cause material that normally do not burn to suddenly catch on fire (sometimes without an ignition source). **Example:** Nitric acid can spontaneously ignite and burn when the spilled acid dries
 **Gas Cylinder** (gases under pressure)	The gas cylinder pictogram is used for the following classes and categories: **compressed gas, liquefied gas, refrigerated liquefied gas**, and **dissolved gas.** These gases are stored under pressure in a container, liquefied, chilled, or dissolved in a carrier. The main hazards: the cylinder or container may explode if heated, leaking gas can be very cold and may cause frostbite it comes into contact with skin, and a leaking cylinder can rapidly release extremely large amounts of gas into the workplace. **Examples:** Propylene cylinder valve vented gas which ignited and caused a domino effect fire
 **Corrosion** (corrosive damages to metals, skin, eyes)	The corrosion pictogram is used for the following classes and categories: **corrosive metals** (Category 1)**, skin corrosion/irritation—skin corrosion** (Categories 1, 1A, 1B, and 1C)**,** and **serious eye damage/eye irritation—serious eye damage** (Category 1). Materials that are corrosive to metals can damage or destroy metals (steel and aluminum). If a corrosive hazard eats through a container, the contents may spill out into the workplace, resulting in health effects, reactive, or fire damage. **Examples:** Nitric acid, hydrochloric acid, and sodium hydroxide solutions
 **Exploding Bomb** (explosion or reactivity hazards)	The exploding bomb pictogram is used for the following classes and categories: **self-reactive substances and mixtures** (Types A and B), and **organic peroxides** (Type A and B). "Self-reactive substances and mixtures" and "organic peroxides" are two classes that can be explosive or flammable or both. "Self-reactive substances or mixtures" are unstable materials that can cause or increase the intensity of a fire. "Organic peroxides" are unstable, and may be highly reactive or explode. These materials require specific storage and handling. **Note:** Both the flame and exploding bomb pictogram are used for "Self-reactive substances and mixtures" (Type B) and "Organic peroxides" (Type B).

 **Skull and Crossbones** (can cause death or toxicity with short exposure to small quantities)	The skull and crossbones pictogram is used for the following classes and categories: The **Acute toxicity** health hazard class contains subclasses: **oral** (Categories 1, 2, and 3), **dermal** (Categories 1, 2, and 3), and **inhalation** (Categories 1, 2, and 3). Products in the acute toxicity hazard class can cause adverse effects following brief exposures. The hazard statements for this class will help indicate the seriousness of the effects of the product. Statements with fatal are more serious than toxic. Toxic is more serious than harmful. **Examples:** Sodium cyanide, carbon monoxide, sulfuric acid, acrylonitrile, and 4-dissocyanate (TDI)
 **Health Hazard** (may cause or suspected or causing serious health effects)	The health hazard circle pictogram is used for the following classes and categories: **respiratory or skin sensitization—Respiratory sensitizer** (Categories 1, 1A, and 1B), **germ cell mutagenicity** (Categories 1, 1A, 1B, and 2), **carcinogenicity** (Categories 1, 1A, 1B, and 2), **reproductive toxicity** (Categories 1, 1A, 1B, and 2), **specific target organ toxicity–Single exposure** (Categories 1 and 2), **specific target organ toxicity—Repeated exposure** (Categories 1 and 2), and **aspiration hazard** (Category 1). **Examples:** Toluene may cause drowsiness or dizziness
 **Exclamation Mark** (may cause less serious health effects or damage the ozone layer)	The exclamation mark pictogram is used for the following classes and categories: **acute toxicity—oral, dermal, and inhalation** (Category 4), **skin corrosion/irritation—Skin irritation** (Category 2), **serious eye damage/eye irritation—Eye irritation** (Categories 2 and 2A), **respiratory or skin sensitization—Skin sensitizer** (Categories 1, 1A, and 1B), and **specific target organ toxicity—Single exposure** (Category 3). These products have health hazards but may not be as severe as other categories in that class. **Examples:** Methyl methacrylate can cause skin sensitization
 **Biohazardous Infectious Materials** (organisms or toxins that can cause diseases in people or animals)	The Biohazardous infectious materials pictogram is used for the following classes and categories: **Biohazardous infectious materials** (Category 1). **Examples:** Body fluids (blood, saliva)

Revision Dates:
November 14, 2017
December 13, 2017
March 27, 2018
December 2, 2021