WHMIS – Workplace Hazardous Material Information System

WHAT'S AT STAKE?

When working with hazardous material, it is important to understand what threats each material can pose. Many factors play a part in the potential risk of injury: Incorrect handling of material, a lack of knowledge of the dangers of each material, lack of or improper labeling and neglecting to update and obtain the safe handling documents of each material.

WHAT'S THE DANGER?

Many workers can be neglectful, complacent, or simply untrained when working with hazardous materials. A lack of caution or knowledge can cause dangers such as: respiratory or skin sensitization, skin corrosion, damage to the eye, explosions, fire, acute toxicity, or long-term effects like carcinogenicity. Diligence and awareness come with proper education and updated, documented information on the hazards of each material.

EXAMPLE
A fifty-year-old was working in a poorly ventilated, freshly filled silo. He was positioned at the surface of the silage with the silo door shut and was not equipped with an air supplied mask. Nitrogen Dioxide had been accumulating around him. He began coughing and struggled to breathe, which followed with severe nausea. He immediately exited the area through the door to vomit, which gave him the opportunity to escape the deadly gas, breathe fresh air and seek medical help.

HOW TO PROTECT YOURSELF

Workplace Hazardous Material Information System (WHMIS) was designed to educate all employees on the dangers of working with hazardous materials. WHMIS has compiled a guideline to inform workers of the risks and safety methods of many different classes of dangerous material.

You should be able to read and understand the WHMIS classifications and the specific dangers they cause.

WHMIS Classifications
There are six classifications of WHMIS (A-F). Many of these classifications have divisions or sub-divisions:

Compressed Gases (*Class A)* - Pressurized container (e.g. propane, oxygen, and acetylene).

Flammable and Combustible Material *(Class B)* - Indicates a product may ignite, burn or be explosive (e.g. gasoline or paint thinner).

Oxidizing Material *(Class C)* - Product may cause a fire if placed near flammable or combustible material (e.g. ammonia nitrate).

Poisonous *(Class D1)* (A&B) - Can be toxic or deadly if consumed. Subdivisions **A** - very toxic materials and **B** - toxic materials (e.g. pine oil and cyanide).

Other Toxic Effects *(Class D2)* (A&B) - Indicates a wide range of acute (immediate) and chronic (long-term) hazards. Subdivisions **A** - very toxic materials and **B** - toxic materials (e.g. asbestos fibres and acetone).

Biohazardous Infectious Materials *(Class D3)* - Contains material that may infect the body with a disease (e.g. hypodermic needles).

Corrosive Material *(Class E)* - Material may cause severe tissue damage over time (e.g. chromic acid).

Dangerously Reactive Materials *(Class F)* - May react to other materials or unstable. Jarring, heating, or exposure to light may cause a dangerous reaction (e.g. acetylene).

Do not mix any chemicals unless directed by the supplier.

Labels
All hazardous products must be properly labelled. Here are the two types of labels:

1. A **supplier label** must be affixed to the product when delivered to the workplace. It will have a WHMIS hatched border.
2. A **workplace label** must be legible and affixed to containers that have been filled

by workers with material from supplier containers, to containers that have arrived from the suppliers without a label or to replace supplier labels that have become illegible or are missing.

Workplace labels must contain the following:

- Product identifier
- Information on the safe handling of the product
- A statement that informs the user that a MSDS is available.

Workplace Identifiers can be used in situations where a workplace label is not possible (e.g. controlled substances pipes). The content of a workplace label can be colour coding, warning signs and pictures that convey the necessary information.

Material Safety Data Sheets (MSDS)

An MSDS is a document compiled by the supplier of the product. It contains the information of each specific hazardous material. This includes the risks and the safe handling practices.

The employer must update the MSDS of each product every three years and must obtain any new and updated information for the MSDS.

Training

Employees should be routinely trained and informed of the following information:

- The content, purpose, and importance of labels and MSDS.
- Safe handling storage procedures, types of identification and their uses and the proper usage and disposal of controlled products.
- Training in emergency situations and the correct procedures to follow in the presence of stray emissions.

Be sure you are also wearing the appropriate protective gear for the job!

FINAL WORD

You must take the time to learn the many hazardous materials in your workplace. This includes labelling, reading and understanding the different classifications and their dangers, the material's purpose and safe handling methods, where the MSDS documents are and referring to them when necessary, and what you should do in the event of an emergency caused by a hazardous material.

QUIZ

1. **There are _____ classifications of WHMIS.**
   - Five
   - Seven
   - Six
   - Ten

2. **When hazardous products are delivered, they are affixed with a _____ label.**
   - Bold
   - Supplier
   - Metallic
   - Blank

3. **Oxidizing material can cause a fire in the presence of flammable or combustible material.**
   - True
   - False

4. **The document that contains all information on products risks and uses is called a _____.**
   - Material Safety Data Sheet
   - Material Supplier Data Sheet
   - Product Information Document
   - Material Sheet of Data Safety

5. **Employees do not need to be trained on the safe handling of hazardous materials. Studying the MSDS is sufficient.**
   - True
   - False

WHAT WOULD YOU DO?

You are newly employed at a fertilizer company, working in an area where several ammonium nitrate containers are stored. You notice that the conditions are incredibly dangerous. You have a good understanding of ammonium nitrate. You know it is an oxidizing material, but the supplier labels have been worn, or removed. The ventilation system is in poor condition, and you have seen several workers sneaking smoke breaks inside the building.

What would you do?

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BEFORE THE TALK - TIPS

This safety talk is a general discussion of the importance of having a good attitude toward safety. Use it to get your people talking about attitudes, good and bad.

Ask your group for examples of "bad" attitudes concerning safety. Dig deeper about why people might have these attitudes.

Also ask for examples of good safety attitudes. Consider what else you can do to promote safety-consciousness. How about safety posters and bulletins?

Look for ways to improve your company's safety culture.

Identify some of the barriers to a good safety attitude among your workers, such as job uncertainty, conflicting priorities, perceived injustices, and others.

Ask your company's safety officer about injury incidents involving a poor safety attitude.

AFTER THE TALK - *CHECKLIST*

PROVIDED FOLLOW-UP TO WORKERS THAT DID

POORLY ON THE QUIZ
NAME: _____
_____
DATE: _____

OBSERVED WORKERS
TASK(S): _____
_____
DATE: _____

REFRESHER TRAINING
TOPIC(S): _____
_____
DATE: _____

OTHER (DESCRIBE): _____
MEETING DATE: _____
LOCATION: _____

NOTES

ANSWERS:

1. Six
2. Supplier
3. True
4. Material Safety Data Sheet
5. False

ATTENDANCE

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INSTRUCTOR: _____ **DATE:** _____

SAFETY TALK: _____