



Online Courses for Wildland Firefighters

~ Serving the Forest Industry since 1996 ~

Safety is Our #1 Priority!



W.H.M.I.S. ~ Workplace Hazardous Materials Information System Course Compliant with 2015 GHS updates

Introduction

This online course is designed for those people who work in the forest industry in British Columbia and may be required to fight Wildland fires. This course is not necessarily transferable to other industries.

Outline:

- Section 1- What is W.H.M.I.S.?
- Section 2- What are the worker's rights in the work place?
- Section 3- What hazardous products will the worker find on the job site?
- Section 4- W.H.M.I.S. Symbols
- Section 5- Understanding the W.H.M.I.S. label
- Section 6- How should hazardous products be handled
- Section 7- What are Safety Data Sheets (SDS)
- Section 8- Special on-site hazards
- Section 9- Other aspects of W.H.M.I.S.

If wish to take this course, please follow these instructions:

- 1- Read each section carefully and answer the questions at the end of each section.
- 2- Complete the registration form and hit "send", then submit your payment

As soon as the payment is received, we will send you an email letter of confirmation. You can use this letter as proof of course completion. Your W.H.M.I.S. for forest workers certification wallet card will be sent to you within 2-3 working days.

Part One, Sections 1 and 2

Section 1 - What is W.H.M.I.S.?

W.H.I.M.S., Workplace Hazardous Material Information System, is an information program put together by Government and Industry to educate workers about the hazardous materials they may encounter in the work place.

The goal is to educate the worker in the recognition and safe handling of these materials in order to protect their health and safety. As of February, 2015, W.H.M.I.S. became internationally coordinated thru GHS (Globally Harmonized System)

After taking the course, the worker should be able to;

- Know the hazards associated with controlled products.
- Know how to protect themselves from injury when using these products.
- Know what to do in an emergency if a worker comes in contact with a controlled substance.
- Know where to get more information about a controlled product.

What are hazardous materials, also know as controlled products ?

A hazardous material is any substance that can cause injury or health problems to anyone coming in physical contact with the material or breathing in the vapors.

These injuries can be anything from simple eye or skin irritation to internal organ damage or cancer. Materials that can cause fire or explosions are also included in this program as well as materials that can be harmful to the environment.

What is the legislation associated with the W.H.M.I.S. program ?

Federal Legislation, Hazardous Products Act and the Controlled Products Regulations, deals with the importation, labeling and sale of controlled products.

Provincial Legislation, Occupational Health and Safety Regulations, covers the use of hazardous materials in the workplace.

The Administrating Authority in British Columbia is WorkSafeBC, They can be contacted via their web site, www.worksafebc.com

WorkSafeBC, the Worker's Compensation Board of BC, is dedicated to promoting workplace health and safety for the workers and employers of British Columbia.

Section 2 - What are the worker's rights in the work place?

Every worker in British Columbia has the right to protect themselves from hazardous materials and dangerous situations while employed.

Every worker has the right to know what sort of material they are handling, how to handle it, and how to protect themselves from any harmful effects that material may pose.

Every worker has the right to refuse to work in dangerous situations if they are not properly trained or do not have the associated approved protective gear.

In other words, you have a legal right to refuse to do work that can be dangerous to your health or safety unless you are properly trained and protected.

Your primary job is to get home safely each day...!

Questions for Sections One and Two

Is the following statement True or False;

1- W.H.M.I.S. stands for Workplace Hazardous Material Information System.

True False

2- The goal of the W.H.M.I.S. program is to educate the worker in the recognition and safe handling of hazardous materials.

True False

3- A hazardous material, can only cause damage if it touches your skin.

True False

4- W.H.M.I.S. is administrated by your employer.

True False

5- Workers in BC have the right to refuse work with hazardous materials if they are not properly trained or have the associated protective gear.

True False

Continue...

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W.H.M.I.S for Forest Workers

Part 2, Sections Three and Four

Section Three - What hazardous products will the worker find on the job site.

There are thousands of hazardous products in both our workplace and homes. Of those, many are regulated and do not fall under the WHMIS system. These include such items as wood products, manufactured articles, tobacco products, many consumer and medical products, food and drug products and pesticides.

If a product falls under the WHMIS labeling requirements, a warning label will be attached to the container.

Section Four - WHMIS Symbols

There are 10 categories of controlled products with each having its own unique symbol. Only the first 4 are relevant to Forest Workers:

1- Compressed gases

These are comprised of any gas under pressure, such as propane, butane and acetylene tanks and fire extinguishers.



2- Flammable/Combustible materials

These are comprised of any materials that can ignite and catch fire, such as gasoline, diesel, drip torch fuel and fire ignition products.



3- Harmful or Irritant

This group is comprised of materials such as Fire Foam, fire ignition products and smoke. Gasoline and Diesel also carry this label.



4- Dangerous for the Environment

This group is comprised of materials are harmful to the environment, land and water.



5- Oxidizers

This group is comprised of products that can cause or contribute to the combustion of other materials, examples are; hydrogen peroxide, potassium nitrate and sodium chlorate.



6- Toxic materials

These are comprised of materials that can cause immediate and serious toxic effects, such as arsenic, methylene chloride and formaldehyde.



7- Corrosive materials

These are comprised of materials that can cause burns, such as lye, bleach, hydrochloric and sulfuric acids (battery acid).



8- Explosive materials

This group is comprised of materials that are explosive.



9- Health Hazard

This group is comprised of products that can undergo dangerous reactions if subject to heat, light, pressure, shock, water or air. Examples are hydrogen cyanide, benzoyl, peroxide and chlorine dioxide (bleach).



10- Biohazardous Infectious materials

This group is comprised of materials such as harmful microorganisms like HIV, Ebola and Hepatitis. Only used in B.C.



Of all these classes and products, the Wildland Firefighter, Tree Planter or Forest Worker need only be concerned with a few. If after taking this course you transfer to another industry, you must update your WHMIS course to comply with the requirements of that field. This course only covers information relevant to the above-mentioned fields.

Workers in the firefighting, tree planting and forestry field should be familiar with the following products;

Compressed gases.

Propane tanks are commonly used in forest camp situations. The containers are under great pressure and contain a flammable substance. These tanks will show both the compressed gas and flammable symbols. Handle these tanks with care and avoid dropping them, avoid smoking within 50 metres and keep them away from open flame or high heat sources.

Be aware of any onsite vehicles that may either be powered by propane or carry propane tanks on board.

Acetylene welding tanks should be treated the same as a propane tank.

In some areas, a pressure tank of argon gas may be used for infrared scanning. Handle these containers with care.

Flammable/Combustible materials

This class covers gasoline, oil and diesel, commonly used in forestry operations. Follow all precautions listed on the container. Keep the containers in a safe area away from heat or open flame. Ensure all containers have proper labels indicating the contents. No smoking within 10 metres. Avoid prolonged breathing of the vapors.

Materials causing toxic effects such as irritation or chronic health problems.

A common item in this class is Fire Foam, used to suppress fires. Avoid contact with your skin and take precautions not to spill the foam in any watercourse. Follow the instructions on the label when using and wear protective clothing as suggested.

If you must remove or replace a wet cell battery, such as in a truck, be careful not to spill any of the acid on your skin. Avoid breathing in any vapors emitted from the battery.

If you work with tree planting fertilizers, read and be familiar with the manufacturer's recommendations.

Questions for Sections 3-4

Is the following statement True or False;

6- There are 10 classes of hazardous materials.

True False

7- Flammable materials are not included in any of the classes.

true False

8- Workers should be familiar with hazardous materials relative to their field of work.

True False

9- Common hazardous materials found in forestry are gasoline, diesel, propane tanks and fire foam.

True False

10- Truck batteries are free of hazards.

true False

[Continue...](#)

W.H.M.I.S. for Forest Workers

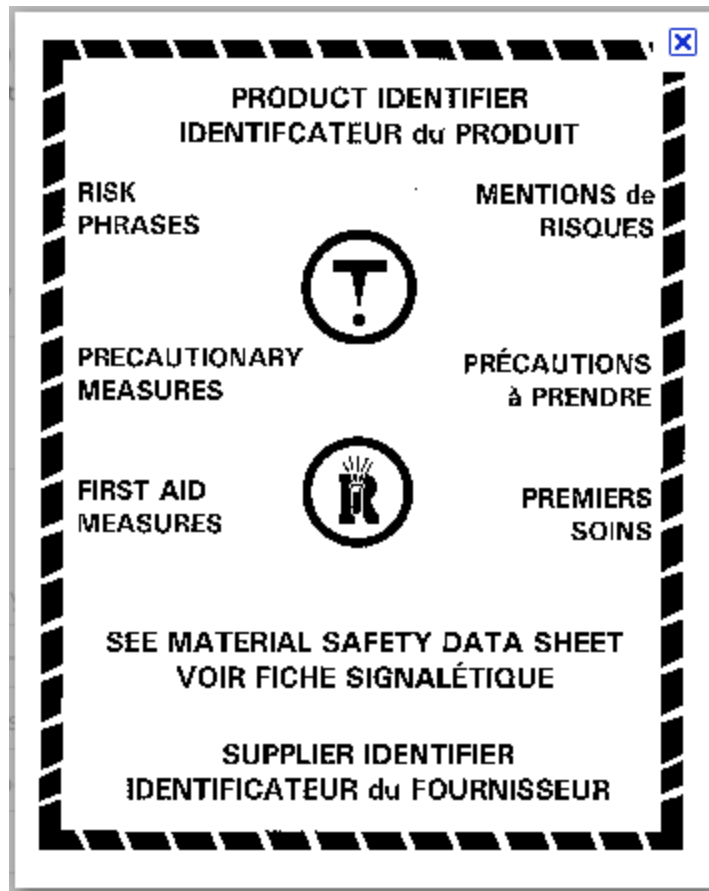
Part 3, Sections Five and Six

Section 5- Understanding the WHMIS label.

Workplace hazardous materials will come with a Supplier Label. These labels will show seven types of information. The hatched border makes these labels easy to identify but is no longer required.

The information on the label will include the following:

- Product name
- Hazard symbols
- Risk phrases
- Precautionary measures
- First aid measures
- Supplier identifier
- Reference to MSDS



The product name is the common name used to identify the material, such as "Gasoline".

The hazard symbol will be any of the 10 symbols that are appropriate to the material. More than one symbol may be present.

The risk phrase will be a brief description of the main risk, such as "Flammable".

The precautionary phrase gives a warning of the hazards associated with this product.

The first aid measure will be a brief description of what first aid steps should be taken if contact with the material happens.

The supplier identifier is the products name.

The reference to SDS (Safety Data Sheet) means that there is a sheet with more information available. These sheets were previously call MSDS (Material Safety Data Sheets)

If a hazardous material has been transferred from its original container, a smaller label should be placed on that container. This label should have at least the product name, safe handling procedures and a reference to the SDS sheet.

Other identifiers are a) placards, b) warning signs, c) colour codes.

Warning samples

GHS Pictograms



FLAMMABLE



CORROSIVE



EXPLOSIVE



**COMPRESSED
GAS**



OXIDIZING



TOXIC



Colour codes sample

1 Sulphuric Acid, 93% (H₂SO₄)

2 Danger!
Poison!
Corrosive!

5

HEALTH

FIRE

0

3

2

W

REACTIVITY

W - WATER REACTIVE

4 - SEVERE
3 - SERIOUS
2 - MODERATE
1 - SLIGHT
0 - MINIMAL

4

6

Consult MSDS for more Information **3**

1) Product Identifier 4) Hazard Symbols

2) Safe Handling Instructions 5) NFPA Information

3) Reference to MSDS 6) P.P.E. Information

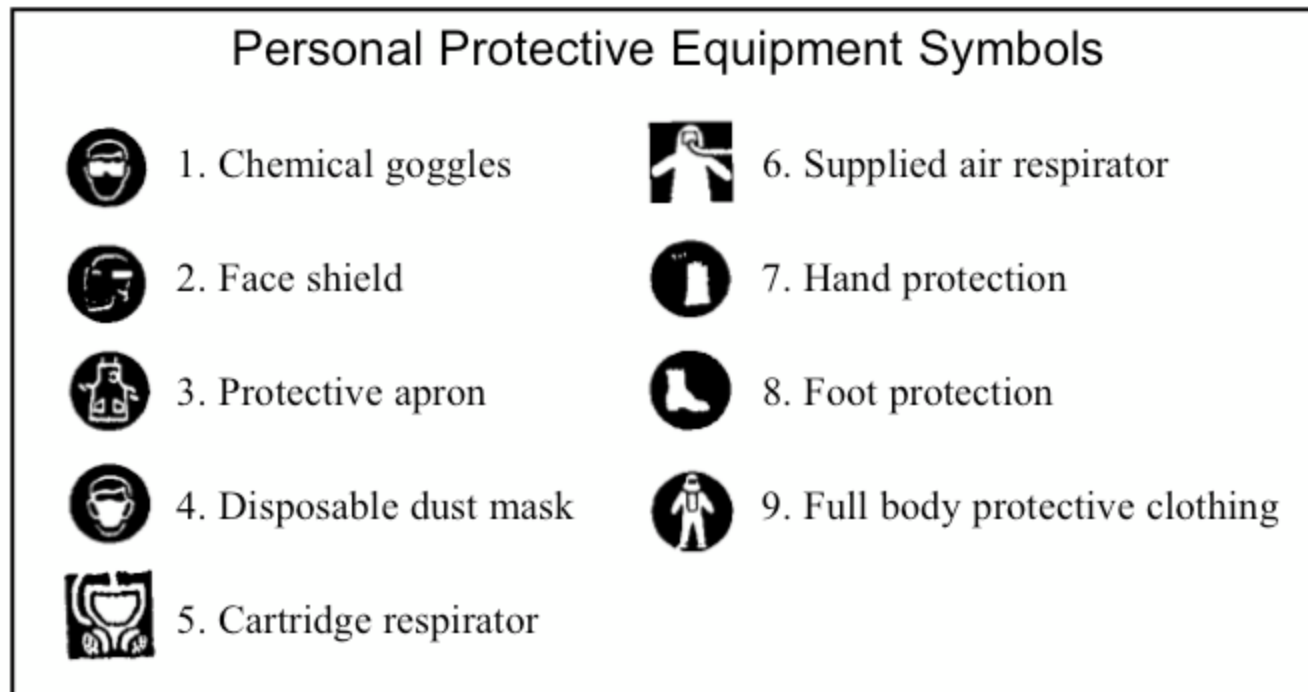
Section 6- How should hazardous products be handled.

Any worker using a product that has a WHMIS label should follow the cautions and instructions on that label.

Protective equipment symbols are another form of letting the worker know how to handle the material. Attached is a chart of those symbols.

Become familiar with them and use whatever protective gear is required. Your employer has an obligation to provide you with the required equipment before you can handle the material.

Sample of Personal Protective Equipment



Questions for Sections Five and Six

Is the following statement True or False;

11- Workplace hazardous products do not need a label.

True False

12- Hatched borders on supplier labels are optional.

True False

13- Each label will have 7 types of information.

True False

14- There can be only 1 symbol on each label.

True False

15- The worker should use all the protective gear required on the label.

True False

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W.H.M.I.S. for Forest Workers

Part Four, Sections Seven and Eight

Section 7- What are Safety Data Sheets (SDS).

The WHMIS shippers label can accommodate just so much information. In order to provide the user with more information, the supplier must provide a technical data sheet known as the Safety Data sheet (SDS).

The SDS will provide:

- Product ingredient
- Specific hazard information
- Measures needed to protect workers
- Safe handling and storage information
- Emergency procedures
- Detailed health and safety information

Sample of office SDS

SECTION 1 — PRODUCT IDENTIFICATION AND USE				
PRODUCT IDENTIFIER			PRODUCT IDENTIFICATION NUMBER (PIN)	
PRODUCT USE				
MANUFACTURER'S NAME		SUPPLIER'S NAME		
STREET ADDRESS		STREET ADDRESS		
CITY	PROVINCE	CITY	PROVINCE	
POSTAL CODE	EMERGENCY TELEPHONE NO.	POSTAL CODE	EMERGENCY TELEPHONE NO.	
SECTION 2 — HAZARDOUS INGREDIENTS				
HAZARDOUS INGREDIENTS	%	CAS NUMBER	LC ₅₀ OF INGREDIENT (SPECIFY SPECIES AND ROUTE)	LC ₅₀ OF INGREDIENT (SPECIFY SPECIES)
SECTION 3 — PHYSICAL DATA				
PHYSICAL STATE	OCCUR AND APPEARANCE		OCCUR THRESHOLD (ppm)	
VAPOUR PRESSURE (mm Hg)	VAPOUR DENSITY (AIR=1)	EVAPORATION RATE	BOILING POINT (°C)	FREEZING POINT (°C)
pH	SPECIFIC GRAVITY	COEFF. WATER/OIL DIST.		
SECTION 4 — FIRE AND EXPLOSION DATA				
FLAMMABILITY YES <input type="checkbox"/> NO <input type="checkbox"/> IF YES, UNDER WHICH CONDITIONS?				
MEANS OF EXTINCTION				
FLASHPOINT (°C) AND METHOD		UPPER FLAMMABLE LIMIT (% BY VOLUME)	LOWER FLAMMABLE LIMIT (% BY VOLUME)	
AUTOIGNITION TEMPERATURE (°C)		HAZARDOUS COMBUSTION PRODUCTS		
EXPLOSION DATA		SENSITIVITY TO STATIC DISCHARGE		
SECTION 5 — REACTIVITY DATA				
CHEMICAL STABILITY YES <input type="checkbox"/> NO <input type="checkbox"/> IF NO, UNDER WHICH CONDITIONS?				
INCOMPATIBILITY WITH OTHER SUBSTANCES YES <input type="checkbox"/> NO <input type="checkbox"/> IF SO, WHICH ONE(S)?				
REACTIVITY, AND UNDER WHAT CONDITIONS				
HAZARDOUS DECOMPOSITION PRODUCTS				

Sample of container SDS

3 Sodium Sulphite, Anhydrous

Irritating to eyes - Contact with acid liberates irritating sulphur dioxide gas - May cause allergic respiratory reaction. 7

Avoid contact with skin and eyes - Do not breathe dust - Use only in well ventilated area - Wear only suitable protective clothing, gloves and eye/face protection Wash thoroughly after handling. 8

In case of contact with eyes or skin, rinse immediately with plenty of water and seek medical advice. 9

See Material Safety Data Sheet 6

1-2-3 Chemicals Inc.
Waterloo, Ontario 4

Irritant pour les yeux - Au contact de l'acide degage du gaz sulfureux irritant - Peut provoquer des reactions allergiques respiratoires.

Eviter le contact avec la peau et les yeux - Eviter de respirer les poussières - Utiliser seulement dans des zones bien ventilees - Porter un vetement de protection approprie, des gant et un appareil de protection pour les yeux et le visage - Se laver soigneusement apres manutention du produit.

En cas de contact avec les yeux ou la peau, laver immediatement et abondamment avec l'eau et consulter un medecin.

Voir la Fiche Signaletique 2

1. Hatched Border
2. Written in English and French
3. Product Identifier
4. Supplier Identifier
5. Hazard Symbol(s)
6. MSDS Reference
7. Risk Phrases
8. Precautionary Measures
9. First Aid Measures

These sheets must be made accessible to the workers, either as a hard copy paper format or as a digital format. If the SDS are in a digital format, a hard copy must be available as a back up and workers should be trained how to access the digital formatted version.

The hard copy must be kept in a prominent location and accessible to workers during working hours. In most cases, if there is an assigned first aid attendant, they will have access to the sheets. If not, there must be some way for workers in the field to access the sheets either by on-site hard copies, telephone or by two-way radio.

Workers should familiarize themselves with the emergency procedures of specific products used on their work site. These

procedures will be listed on the SDS for that product.

The Safety Data Sheets should be no older than 3 years.

Section 8- Special on site hazards.

Each worksite is unique and will have its own conditions as to where and how hazardous materials will be used. It is imperative that a full assessment of the circumstances at each site be made and updated as conditions or situations change.

If a worker enters a worksite for the first time, they should be made aware of the hazardous material situation if any.

Questions for Sections 7 & 8

Is the following statement True or False;

16- All the information a worker needs about a hazardous substance is listed on the shippers label.

True False

17- SDS stand for Safety Data Sheets.

True False

18- Some form of the SDS must be available to workers at all times.

True False

19- All SDS are good for up to 12 years.

True False

20- The most important aspects of any job is personal Safety.

True False

Continue...