

WHMIS 2015

The Global Harmonized System

Occupational Health & Safety
2018/2019

The times they are a changing...

Modifications to WHMIS 1988 has Incorporated
the Globally Harmonized System(GHS) of
classifying and labelling chemicals

WHMIS 2015 GHS



The times they are a changing...

What is W.H.M.I.S?

Workplace **H**azardous **M**aterials
Information **S**ystem (WHMIS) is

Canadian legislation

(in effect since October 31, 1988,) of a standard hazard communication system.

It was established to assist workers by giving more information about the hazardous materials that are produced, handled, stored, used or disposed of in the workplace.



The times they are a changing...

WHY?

WHMIS is being updated to align with the Global Harmonized System (GHS).

The goal of GHS is to standardize classification of Hazards and the format of Safety Data sheets all over the world.

GHS is set to be fully implemented by 2018.

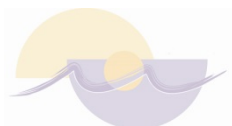


Roles and Responsibilities

NO CHANGE

SUPPLIERS

- Identify hazardous products
- Prepare the labels and (M)SDS's and provide them to the purchasers for intended use in the workplace



Roles and Responsibilities

NO CHANGE

Employers

- Educate and train workers
- Prepare the labels and (M)SDS's as needed
- Ensure proper labelling
- Appropriate control measures



Roles and Responsibilities

NO CHANGE

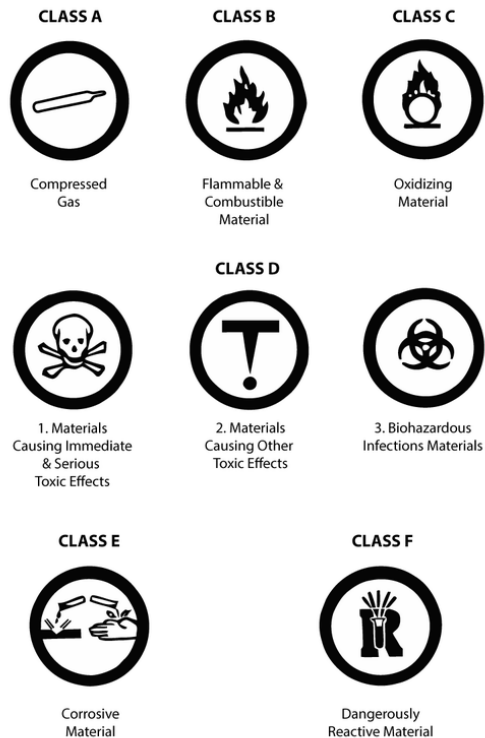
Workers

- participate in WHMIS and chemical safety training programs;
- take necessary steps to protect themselves and their co-workers; and,
- participate in identifying and controlling hazards.



Transition

We will have to be familiar with both systems until the transition is complete!



Three Elements of WHMIS

Labels: All hazardous materials must carry labels that clearly identify risks, and recommend precautions for safe handling.

Safety Data Sheets (SDS): A SDS contains much more detailed information about a material than is found on the label. A SDS must be provided for every hazardous material in your workplace. (Formerly called MSDS).

Worker Training: Employers are required to educate workers on how to use and interpret WHMIS information. Generic WHMIS training is an annual requirement in most



So, what's different

- WHMIS 2015 introduces:
- **new** classification criteria and hazard classes
- **new** label requirements
- a **new** standardized format for Safety Data Sheets

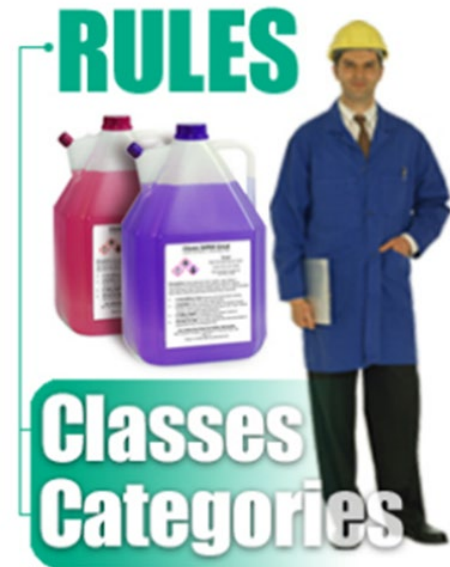


RULES, CLASSES AND CATEGORIES

The purpose of WHMIS is to:

Establish rules for classifying products into classes and categories.

Labels and safety data sheets (sds) provide information about products according to the criteria of the Hazardous Products Act and regulations.













Hazards And Classess

WHMIS applies to hazardous materials known as **controlled products**.

A controlled product is any product that can be included in any of the following nine classes (formerly eight classes):



	Exploding bomb (for explosion or reactivity hazards)		Flame (for fire hazards)		Flame over circle (for oxidizing hazards)
	Gas cylinder (for gases under pressure)		Corrosion (for corrosive damage to metals, as well as skin, eyes)		Skull and Crossbones (can cause death or toxicity with short exposure to small amounts)
	Health hazard (may cause or suspected of causing serious health effects)		Exclamation mark (may cause less serious health effects or damage the ozone layer*)		Environment* (may cause damage to the aquatic environment)
	Biohazardous Infectious Materials (for organisms or toxins that can cause diseases in people or animals)				

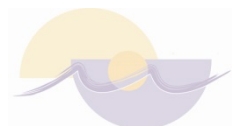
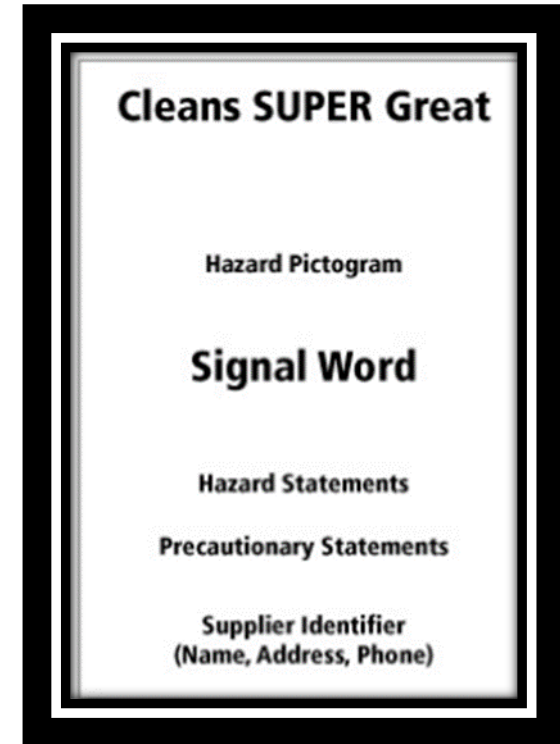
* The GHS system also defines an Environmental hazards group. This group (and its classes) was not adopted in WHMIS 2015. However, you may see the environmental classes listed on labels and Safety Data Sheets (SDSs). Including information about environmental hazards is allowed by WHMIS 2015.



WHMIS Guides

Every product that falls into a hazard class

- Physical hazards – 19 classes
- Health hazards – 12 classes



Criteria for type and amount of Training

- If the product is under WHMIS and is already used in the workplace, workers should already be trained to work with it safely.
- If the same product enters the workplace with WHMIS 2015 labels and safety data sheets, and workers know how to work with it safely, workers may continue to use the product but must be trained as soon as practicable on the content and format of the new supplier labels and safety data sheets.



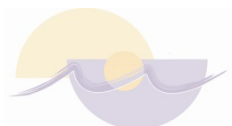
Is This a New Product or Newly Classified?

- products with WHMIS 1998 labels and material safety data sheets for as long as they are still used in the workplace; and,
- products with WHMIS 2015 labels and safety data sheets, as soon as practicable after these products enter the workplace and, in some cases, before they are used.



STOP!!


If a hazardous product enters the workplace with WHMIS 2015 labels and safety data sheets, and it was not previously used, You need to make sure you have the training before you use it!




WHMIS Controlled products fall into nine **'classes'**, some of which are further broken down into **'divisions'**. Each class or division has a unique distinctive hazard symbol.

Let's review each of these symbols!




Symbol	Potential Hazards	Precautions
<p data-bbox="208 458 494 672">CLASS A Gas Cylinder</p> 	<p data-bbox="625 304 1193 482">Cylinder may explode if heated in a fire or if dropped.</p> <p data-bbox="625 558 1190 862">Sudden release of compressed gas due to puncture can cause cylinder to become a projectile.</p> <p data-bbox="625 1001 846 1039">Examples:</p> <ul data-bbox="625 1051 942 1139" style="list-style-type: none">▪ Oxygen▪ Nitrous Oxide	<p data-bbox="1265 304 1760 419">Handle with care, do not drop cylinder.</p> <p data-bbox="1265 495 1798 672">Keep cylinder away from potential sources of ignition</p> <p data-bbox="1265 748 1806 862">Store the containers in the designated area.</p>




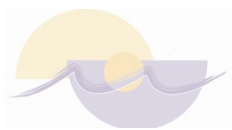
Symbol	Potential Hazards	Precautions
<p data-bbox="131 368 531 649">CLASS B Flammable & Combustible Material</p> 	<p data-bbox="622 289 1180 464">Substance may burn at relatively low temperatures.</p> <p data-bbox="622 544 1238 654">May cause fire if exposed to heat, sparks, or flames.</p> <p data-bbox="622 796 838 929">Examples:</p> <ul data-bbox="622 846 823 929" style="list-style-type: none">▪ Acetone▪ Alcohol	<p data-bbox="1298 289 1864 525">Keep the material away from heat sources and other combustible materials.</p> <p data-bbox="1298 605 1870 779">Never smoke when working with or near the material.</p> <p data-bbox="1298 859 1825 975">Store the material in a cool, fire-proof area.</p>




Symbol	Potential Hazards	Precautions
<p data-bbox="166 382 452 588">CLASS C Oxidizing Material</p> 	<p data-bbox="585 304 1192 539">Has a fire and/or explosion risk in the presence of flammable or combustible material.</p> <p data-bbox="585 622 1155 986">May cause fire when it comes into contact with combustible material such as wood or fuels. May also burn eyes and skin upon contact.</p> <p data-bbox="585 1036 799 1076">Examples:</p> <ul data-bbox="585 1089 1049 1229" style="list-style-type: none"> ▪ Oxygen ▪ Hydrogen peroxide ▪ Sodium Hypochlorite 	<p data-bbox="1230 304 1837 544">Keep the material away from combustible materials and store in the designated area.</p> <p data-bbox="1230 622 1846 862">Keep the material away from sources of ignition and never smoke when working near the material.</p> <p data-bbox="1230 939 1866 1179">Wear the proper protective equipment, including eye, face and hand protection and protective clothing.</p>




Symbol	Potential Hazards	Precautions
<p data-bbox="183 297 473 428">CLASS D Division 1</p> <div data-bbox="67 485 589 735">  </div> <p data-bbox="86 871 569 1170">Poisonous & Infectious Material: Causing Immediate & Serious Toxic Effects</p>	<p data-bbox="627 292 1149 399">Is a potential fatal poisonous substance.</p> <p data-bbox="627 478 1236 778">May be fatal or cause permanent damage if it is inhaled or swallowed or if it enters the body through skin contact.</p> <p data-bbox="627 863 1149 971">May burn eyes or skin upon contact.</p> <p data-bbox="627 1049 840 1085">Examples:</p> <ul data-bbox="627 1099 1023 1185" style="list-style-type: none"> ▪ Carbon Monoxide ▪ Phosphoric Acid 	<p data-bbox="1271 292 1758 399">Handle material with extreme caution.</p> <p data-bbox="1271 478 1864 906">Avoid contact with the skin or eyes by wearing the protective equipment, including eye, face and hand protection and protective clothing.</p> <p data-bbox="1271 985 1825 1099">Store in the designated area only.</p>




Symbol	Potential Hazards	Precautions
<p data-bbox="181 297 484 425">CLASS D Division 2</p>  <p data-bbox="69 933 591 1168">Poisonous & Infectious Material: Causing Other Toxic Effects</p>	<p data-bbox="629 289 1213 525">May cause disease or permanent damage as a result of repeated exposures over time.</p> <p data-bbox="629 608 1145 843">May be a skin or eye irritant, or a sensitizer which produces a chemical allergy.</p> <p data-bbox="629 922 846 958">Examples:</p> <ul data-bbox="629 972 942 1165" style="list-style-type: none"> ▪ Alcohol ▪ Asbestos ▪ Nitrous Oxide ▪ Epoxy Glues 	<p data-bbox="1273 289 1862 715">Avoid skin and eye contact by wearing all protective equipment necessary including eye, face and hand protection and protective clothing.</p> <p data-bbox="1273 793 1827 908">Store in the designated area only.</p>




Symbol	Potential Hazards	Precautions
<p data-bbox="183 307 486 435">CLASS D Division 3</p>  <p data-bbox="86 942 579 1178">Poisonous & Infectious Material: Biohazardous Infectious Material</p>	<p data-bbox="633 292 1226 471">May cause an infectious disease resulting in illness or possible death.</p> <p data-bbox="633 606 898 749">Examples:</p> <ul data-bbox="633 656 898 749" style="list-style-type: none">▪ Blood▪ Body fluids	<p data-bbox="1275 292 1825 406">Take every measure to avoid contamination.</p> <p data-bbox="1275 485 1864 728">Handle the material only when fully protected by the proper, designated equipment.</p> <p data-bbox="1275 799 1854 1042">Handle the material in designated areas where controls are in place to prevent exposure.</p>



Symbol	Potential Hazards	Precautions
<p data-bbox="69 372 542 496">CLASS E Corrosive Material</p> 	<p data-bbox="581 289 1161 596">Cause severe eye and skin irritation upon contact. Causes severe tissue damage with prolonged contact.</p> <p data-bbox="581 729 794 772">Examples:</p> <ul data-bbox="581 782 794 868" style="list-style-type: none"><li data-bbox="581 782 726 818">▪ Acids<li data-bbox="581 829 794 868">▪ Caustics	<p data-bbox="1209 289 1754 396">Keep containers tightly closed.</p> <p data-bbox="1209 439 1850 811">Avoid skin and eye contact by wearing all necessary protective equipment, including eye, face and hand protection and protective clothing.</p> <p data-bbox="1209 846 1715 961">Use in well-ventilated areas only.</p> <p data-bbox="1209 975 1740 1089">Wear the proper respiratory equipment.</p>



Symbol	Potential Hazards	Precautions
<p data-bbox="92 386 533 572">CLASS F Dangerously Reactive Material</p> 	<p data-bbox="587 301 1141 796">Substance is very unstable. Can react with water to form toxic or flammable gas. Can explode as the result of shock, friction or increase in temperature.</p> <p data-bbox="587 933 803 976">Examples:</p> <ul data-bbox="587 986 900 1076" style="list-style-type: none">▪ Sodium Metal▪ Picric Acid	<p data-bbox="1219 301 1812 411">Keep material away from heat.</p> <p data-bbox="1219 494 1843 604">Open containers carefully; do not drop them.</p> <p data-bbox="1219 684 1870 793">Store the material in a cool, flame-proof area.</p>



3 Types of Labels

PRODUCT IDENTIFIER

HAZARDOUS LABORATORY SAMPLE
For hazard information or in an emergency call

ÉCHANTILLON POUR LABORATOIRE DE PRODUIT DANGEREUX

Pour obtenir des renseignements sur les dangers ou en cas d'urgence, composez

Tel. _____

SUPPLIER IDENTIFIER

- Lab

- **Workplace**

ACETONE

Flammable

- Keep away from heat, sparks and flames
- Wear butyl rubber gloves and safety goggles
- Use with local exhaust ventilation

Safety Data Sheet Available

- **Supplier**

Supplier Label
Etiquette du fournisseur

NETTOYANT XYZ CLEANER

Causes Burns		Cause des brûlures
Very Toxic Material		Produit très toxique
Avoid Contact with Skin		Éviter tout contact avec la peau
In case of skin or eye contact, flush with copious amounts of water for 15 minutes and seek medical attention		En cas de contact avec la peau ou les yeux, laver à grande eau pendant 15 minutes et consulter un médecin.

See Material Safety Data Sheet
Voir la fiche signalétique

ABC Chemical Company Ltd.
Fabricant de produits chimiques ABC

Product WSNB-1 / Produit WSNB-1

Danger
Fatal if swallowed.
Causes skin irritation.

Précisions:
Mortel si avalé.
Provoque une irritation cutanée.

Precautions:
Wear protective gloves.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.

Précautions:
Porter des gants de protection.
Se laver les mains soigneusement après manipulation.
Ne pas manger, boire ou fumer en manipulant ce produit.

Keep out of reach of children.
Éloigner le contenu de la portée des enfants.

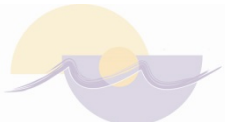
IF ON SKIN: Wash with plenty of water. If into contact with eyes, Get medical advice or attention. - Do not use immediately after contact with skin. Wash it before reuse.

SI EN CONTACT AVEC LA PEAU: Laver abondamment à l'eau. Éviter d'utiliser immédiatement après contact avec la peau. Rincer à l'eau avant de réutiliser.

IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth.

EN CAS D'INGESTION: Appeler immédiatement un CENTRE ANTIDOTIQUE ou un médecin. Rincer la bouche.

ABC Chemical Co., 123 rue Anywhere St., Mytown, ON N0N 0N0 (123) 456-7890



Supplier Labels

1 → **Product WSNB-1 / Produit WSNB-1**

→ **3** →

4 → **Danger**
Fatal if swallowed.
Causes skin irritation.

5 → **Precautions:**
Wear protective gloves.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.

6 → Store locked up.
Dispose of contents/containers in accordance with local regulations.

4 → **IF ON SKIN:** Wash with plenty of water.
If skin irritation occurs: Get medical advice or attention.
Take off contaminated clothing and wash it before reuse.
IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
Rinse mouth.

2 → **ABC Chemical Co., 123 rue Anywhere St., Mytown, ON NON ONO (123) 456-7890**

Danger
Mortel en cas d'ingestion.
Provoque une irritation cutanée.

Conseils :
Porter des gants de protection.
Se laver les mains soigneusement après manipulation.
Ne pas manger, boire ou fumer en manipulant ce produit.

Garder sous clef.
Éliminer le contenu/récipient conformément aux règlements locaux en vigueur.

EN CAS DE CONTACT AVEC LA PEAU : Laver abondamment à l'eau.
En cas d'irritation cutanée : Demander un avis médical/consulter un médecin.
Enlever les vêtements contaminés et les laver avant réutilisation.
EN CAS D'INGESTION : Appeler immédiatement un CENTRE ANTIPOISON ou un médecin.
Rincer la bouche.

1. Product Identifier
2. Initial Supplier Identifier
3. Pictogram(s)
4. Signal Word
5. Hazard Statement(s)
6. Precautionary Statement(s)
7. Label Information



WHMIS 1988

WHMIS 2015

Supplier Label Étiquette du fournisseur

NETTOYANT XYZ CLEANER

<p>Causes Burns Very Toxic Material Avoid Contact with Skin</p>		<p>Cause des brûlurs Produit très toxique Éviter tout contact avec la peau</p>
<p>In case of skin or eye contact, flush with copious amounts of water for 15 minutes and seek medical attention</p>		<p>En cas de contact avec la peau ou les yeux, laver à grande eau pendant 15 minutes et consulter un médecin.</p>

See Material Safety Data Sheet
Voir la fiche signalétique

ABC Chemical Company Ltd.
Fabricant de produits chimiques ABC

Product WSNB-1 / Produit WSNB-1



Danger

Fatal if swallowed.
Causes skin irritation.

Precautions:

Wear protective gloves.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.

Store locked up.
Dispose of contents/containers in accordance with local regulations.

IF ON SKIN: Wash with plenty of water.
If skin irritation occurs: Get medical advice or attention.

Take off contaminated clothing and wash it before reuse.

IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
Rinse mouth.

Danger

Mortel en cas d'ingestion.
Provoque une irritation cutanée.

Conseils :

Porter des gants de protection.
Se laver les mains soigneusement après manipulation.
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En cas d'irritation cutanée : Demander un avis médical/consulter un médecin.

Enlever les vêtements contaminés et les laver avant réutilisation.

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ABC Chemical Co., 123 rue Anywhere St., Mytown, ON NON ONO (123) 456-7890

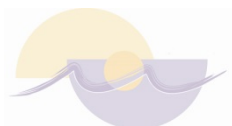


Workplace Labels

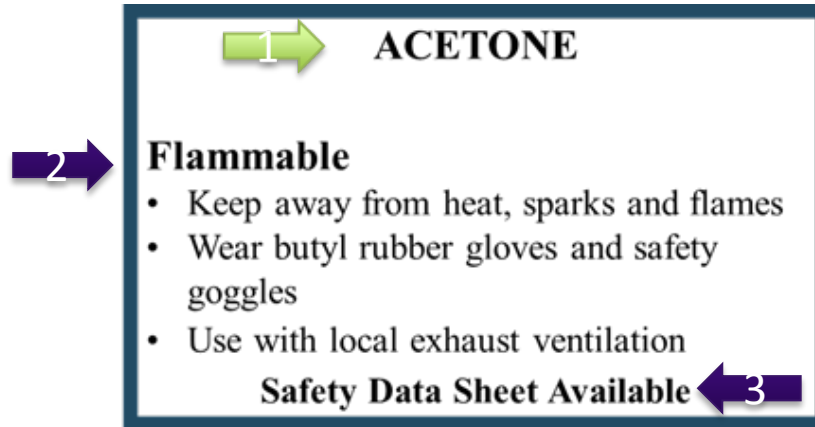
Affixed to a product in the workplace when the product is **decanted from a large container** to a smaller container, or when the original label is lost, damaged, or illegible.

Workplace labels are applied to:

- Secondary containers
- Containers of products received in bulk
- Employer-produced products
- Containers with missing or illegible supplier labels



Workplace Labels



1 → **ACETONE**

2 → **Flammable**

- Keep away from heat, sparks and flames
- Wear butyl rubber gloves and safety goggles
- Use with local exhaust ventilation

Safety Data Sheet Available ← **3**

- 1. Product Name**
- 2. Safe Handling Procedures**
- 3. Reference to the SDS**



Material Safety Data Sheets

Are Now

Safety Data Sheets

Safety Data Sheets (SDS) need to be available for all products under WHMIS and provide more detailed information than can be found on a label.

They must be updated when **new information is made available** by the supplier.

The new format has a 16-section SDS with each section listed in a standardized order



MSDSonline

— a velocityEHS solution —

***MSDS ONLINE© provides updated (M)SDS on all our
products here at BCHS
The link is on the VSNet homepage on the WEBLINK list***



MSDSonline

a velocityEHS solution

SEARCH PRODUCTS
HERE

The screenshot displays the MSDSonline web application interface. At the top, there are navigation links for "Log In", "Edit Memory", and "Help Center". The main header features the "Brant Community Healthcare System" logo and the "MSDSonline" logo. Below the header, there are tabs for "Safety Center" and "MSDS Search". The "MSDS Search" section is active, showing a search form with the following fields:

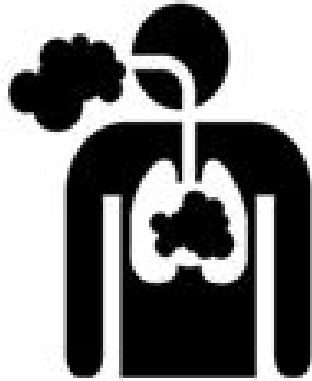
- Search by Product Name, Manufacturer, CAS#, and/or Product Code or search by indexed fields, Ingredient, Ingredient CAS#, UNNA#, Dc
- Locations: Brant Community Healthcare System (342)
- Product Status: Active
- Groups: Select Group
- Product Data: Select Product Data
- Custom Module: (empty field)

Buttons for "Search" and "Reset" are located below the search form. At the bottom of the search area, there is a "Product name starts with:" dropdown menu with an alphabetical list: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z 0-9 #+.

Search the departmental or group list or the total product list for the entire facility!



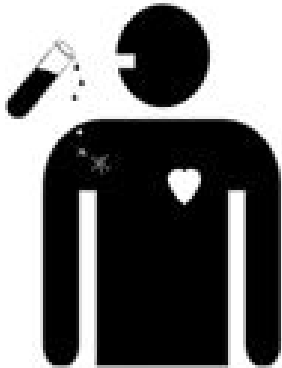
Routes of Entry



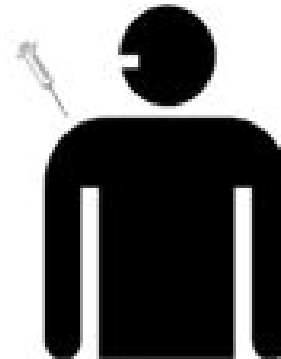
Inhalation



Ingestion



Absorption



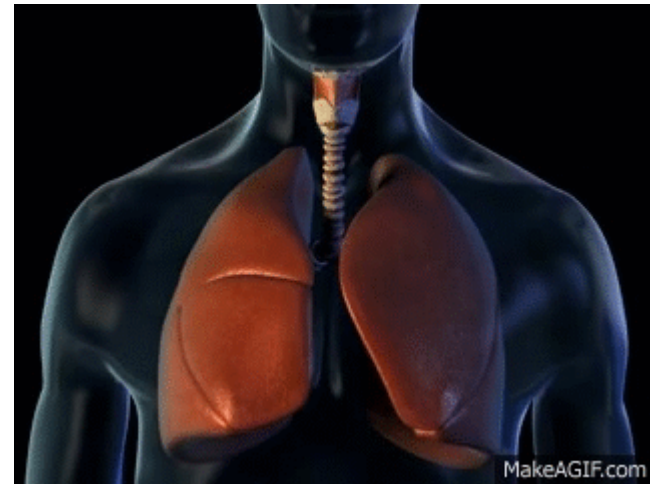
Injection/Penetration Wounds





Inhalation

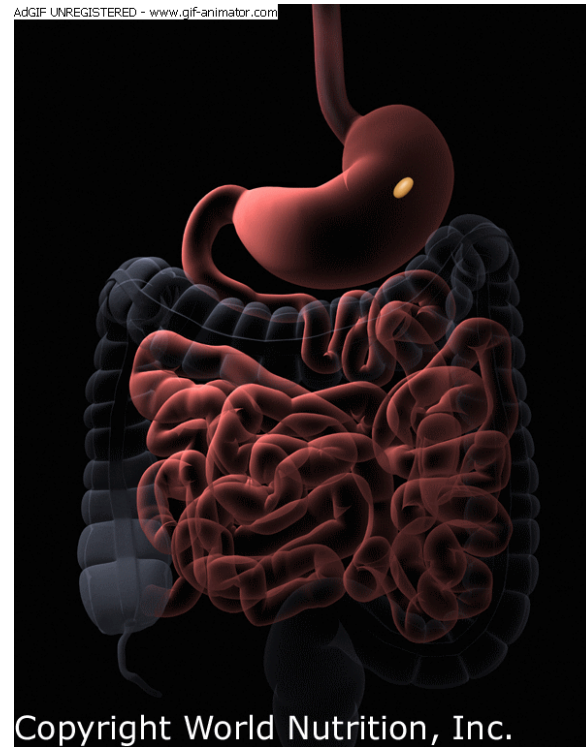
The material enters your body by breathing it in. Airborne contaminants can be easily absorbed through the tissue and become in constant contact with the air we breathe.





Ingestion

The material enters the body by mouth (swallowing). Toxic material entering the body by ingestion can occur from eating in a contaminated workplace.





Absorption

The material can be absorbed into the body through the eyes or skin causing dangerous effects.





Injection/Penetration Wounds

The material enter the body through an open wound or contaminated



Control of Hazards

Here are some ways to control exposure to hazardous substances:

1. Elimination – remove the hazard from the workplace.



2. Substitution – substitute hazardous materials or machines with less hazardous ones.



3. Safe Work Practices (Administrative Controls) – controlling the way the work is done, including timing, policies and rules, and work practices.



4. Ventilation (Engineering Controls) – eliminating atmospheric hazards or merely controlling them.

