

WHMIS

The Global Harmonized System

Occupational Health & Safety



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

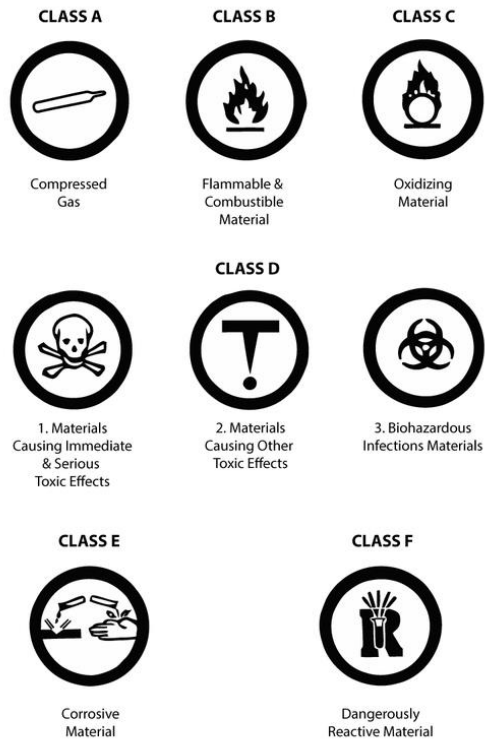
Workers

- 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

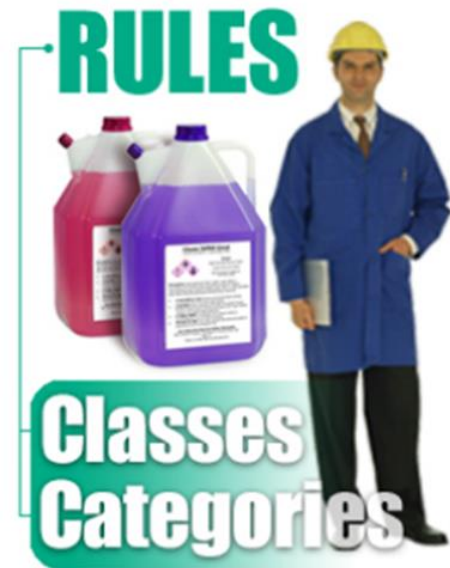


RULES, CLASSES AND CATEGORIES

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 Classes

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

SuperKleen 007



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.
Ne pas manger, boire ou fumer en manipulant ce produit.

Garder sous clef.
Éliminer le contenu/réceptacle 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.

Compagnie XYZ, 123 rue Machin St, Mytown, ON, N0N 0N0 (123) 456-7890



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.

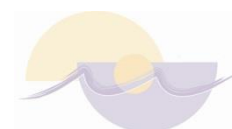
Let's review each of these symbols!




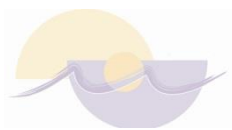
Symbol	Potential Hazards	Precautions
<p data-bbox="193 492 483 714">CLASS A Gas Cylinder</p> 	<p data-bbox="614 335 1188 521">Cylinder may explode if heated in a fire or if dropped.</p> <p data-bbox="614 592 1188 906">Sudden release of compressed gas due to puncture can cause cylinder to become a projectile.</p> <p data-bbox="614 1042 840 1085">Examples:</p> <ul data-bbox="614 1092 937 1185" style="list-style-type: none">▪ Oxygen▪ Nitrous Oxide	<p data-bbox="1265 335 1767 449">Handle with care, do not drop cylinder.</p> <p data-bbox="1265 528 1806 714">Keep cylinder away from potential sources of ignition</p> <p data-bbox="1265 785 1816 906">Store the containers in the designated area.</p>



Symbol	Potential Hazards	Precautions
<p data-bbox="142 451 544 733">CLASS B Flammable & Combustible Material</p> 	<p data-bbox="625 372 1186 548">Substance may burn at relatively low temperatures.</p> <p data-bbox="625 625 1244 739">May cause fire if exposed to heat, sparks, or flames.</p> <p data-bbox="625 876 846 915">Examples:</p> <ul data-bbox="625 925 832 1015" style="list-style-type: none"><li data-bbox="625 925 832 963">▪ Acetone<li data-bbox="625 973 832 1015">▪ Alcohol	<p data-bbox="1286 372 1823 605">Keep the material away from heat sources and other combustible materials.</p> <p data-bbox="1286 691 1773 862">Never smoke when working with or near the material.</p> <p data-bbox="1286 943 1818 1058">Store the material in a cool, fire-proof area.</p>



Symbol	Potential Hazards	Precautions
<p data-bbox="150 378 434 585">CLASS C Oxidizing Material</p> 	<p data-bbox="569 299 1168 535">Has a fire and/or explosion risk in the presence of flammable or combustible material.</p> <p data-bbox="569 621 1139 978">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="569 1035 782 1071">Examples:</p> <ul data-bbox="569 1085 1033 1220" style="list-style-type: none">▪ Oxygen▪ Hydrogen peroxide▪ Sodium Hypochlorite	<p data-bbox="1217 299 1816 535">Keep the material away from combustible materials and store in the designated area.</p> <p data-bbox="1217 621 1825 856">Keep the material away from sources of ignition and never smoke when working near the material.</p> <p data-bbox="1217 935 1845 1170">Wear the proper protective equipment, including eye, face and hand protection and protective clothing.</p>



Symbol

CLASS D
Division 1



**Poisonous &
Infectious Material:
Causing Immediate
& Serious Toxic
Effects**

Potential Hazards

Is a potential fatal poisonous substance.

May be fatal or cause permanent damage if it is inhaled or swallowed or if it enters the body through skin contact.

May burn eyes or skin upon contact.

Examples:

- Carbon Monoxide
- Phosphoric Acid


Precautions

Handle material with extreme caution.


Avoid contact with the skin or eyes by wearing the protective equipment, including eye, face and hand protection and protective clothing.

Store in the designated area only.




Symbol	Potential Hazards	Precautions
<p data-bbox="170 321 473 449">CLASS D Division 2</p>  <p data-bbox="61 959 583 1196">Poisonous & Infectious Material: Causing Other Toxic Effects</p>	<p data-bbox="620 311 1207 554">May cause disease or permanent damage as a result of repeated exposures over time.</p> <p data-bbox="620 631 1136 873">May be a skin or eye irritant, or a sensitizer which produces a chemical allergy.</p> <p data-bbox="620 945 840 988">Examples:</p> <ul data-bbox="620 996 937 1188" style="list-style-type: none"> ▪ Alcohol ▪ Asbestos ▪ Nitrous Oxide ▪ Epoxy Glues 	<p data-bbox="1265 311 1854 745">Avoid skin and eye contact by wearing all protective equipment necessary including eye, face and hand protection and protective clothing.</p> <p data-bbox="1265 816 1825 931">Store in the designated area only.</p>




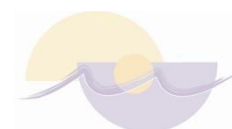
Symbol	Potential Hazards	Precautions
<p data-bbox="170 321 473 449">CLASS D Division 3</p>  <p data-bbox="77 956 569 1192">Poisonous & Infectious Material: Biohazardous Infectious Material</p>	<p data-bbox="618 307 1207 485">May cause an infectious disease resulting in illness or possible death.</p> <p data-bbox="618 621 888 763">Examples:</p> <ul data-bbox="618 671 888 763" style="list-style-type: none"> <li data-bbox="618 671 772 706">▪ Blood <li data-bbox="618 721 888 763">▪ Body fluids 	<p data-bbox="1265 307 1816 421">Take every measure to avoid contamination.</p> <p data-bbox="1265 499 1845 742">Handle the material only when fully protected by the proper, designated equipment.</p> <p data-bbox="1265 821 1845 1063">Handle the material in designated areas where controls are in place to prevent exposure.</p>



Symbol	Potential Hazards	Precautions
<p data-bbox="69 429 542 554">CLASS E Corrosive Material</p> 	<p data-bbox="581 348 1161 651">Cause severe eye and skin irritation upon contact. Causes severe tissue damage with prolonged contact.</p> <p data-bbox="581 786 794 825">Examples:</p> <ul data-bbox="581 839 794 925" style="list-style-type: none">▪ Acids▪ Caustics	<p data-bbox="1209 348 1754 454">Keep containers tightly closed.</p> <p data-bbox="1209 501 1850 868">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 905 1715 1019">Use in well-ventilated areas only.</p> <p data-bbox="1209 1033 1740 1148">Wear the proper respiratory equipment.</p>



Symbol	Potential Hazards	Precautions
<p data-bbox="79 429 513 615">CLASS F Dangerously Reactive Material</p> 	<p data-bbox="568 344 1122 836">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="568 979 880 1115">Examples:</p> <ul data-bbox="568 1029 880 1115" style="list-style-type: none">▪ Sodium Metal▪ Picric Acid	<p data-bbox="1199 344 1792 451">Keep material away from heat.</p> <p data-bbox="1199 536 1823 644">Open containers carefully; do not drop them.</p> <p data-bbox="1199 729 1850 836">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
Étiquette du fournisseur

NETTOYANT XYZ CLEANER

Causes Burns
Very Toxic Material
Avoid Contact with Skin

In case of skin or eye contact, flush with copious amounts of water for 15 minutes and seek medical attention

Causes des brûlures
Produit très toxique
Éviter tout contact avec la peau

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.
Cause skin irritation.

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

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

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

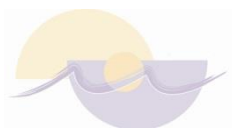
Store isolated
Separate and store incompatible materials away from oxidizers.

Stocker isolé
Séparer et stocker incompatibles conformément aux règlements locaux en vigueur.

IF YOU SMELL Wash with plenty of water.
If skin irritation occurs, Get medical attention or a physician.
Wash with copious amounts of water.
If swallowed, Do not induce vomiting. Call a physician immediately.

SI VOUS SENTIR Rincer abondamment avec de l'eau.
En cas d'irritation cutanée, Demander un avis médical immédiatement ou consulter.
Éviter les réflexes vomitifs et de se laver avec copieuses quantités d'eau.
En cas d'ingestion, Ne pas provoquer de vomissements. Appeler immédiatement un médecin.

ABC Chemical Co., 123 rue Anywhere St., Montreal, QC H0N 0N0 (112) 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/réceptacle 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

Quick Clean Paint Stripper

<p>DANGER POISONOUS/ FLAMMABLE</p> <ul style="list-style-type: none">• Keep away from heat sparks and flame.• Avoid contact with eyes and skin.• Do not inhale vapors or mist.• Do not swallow.• Harmful if absorbed through the skin. <p>PRECAUTIONS</p> <ul style="list-style-type: none">• Wear chemical goggles and resistant gloves.• Wash thoroughly after handling.• Keep container tightly closed. <p>FIRST AID</p> <ul style="list-style-type: none">• Contains METHANOL (30%).• In case of contact, flush eyes and skin with water for 15 minutes.• If swallowed, induce vomiting.• Get medical attention immediately.	 	<p>DANGER POISON/ INFLAMMABLE</p> <ul style="list-style-type: none">• Garder loin de la chaleur, des étincelles et de la flamme.• Éviter tout contact avec les yeux et la peau.• Ne pas respirer les vapeurs.• Ne pas absorber.• Nocif, si absorbé par la peau. <p>PRÉCAUTIONS</p> <ul style="list-style-type: none">• Porter des lunettes protectrices et des gants résistants.• Se laver minutieusement les mains après usage.• Garder le contenant bien fermé. <p>PREMIERS SOINS</p> <ul style="list-style-type: none">• En cas de contact avec les yeux, ou la peau, laver à grande eau pendant 15 minutes.• Si avalé, provoquer le vomissement.• Obtenir des soins médicaux immédiats.
--	--	--

**SEE MATERIAL SAFETY DATA SHEET
VOIR FICHE SIGNALÉTIQUE**

Acme Paint Company
Ottawa, Ontario (613) 123-4567

Product WSNB-1 / Produit WSNB-1

	
<p>Danger</p> <p>Fatal if swallowed. Causes skin irritation.</p> <p>Precautions:</p> <p>Wear protective gloves. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.</p> <p>Store locked up. Dispose of contents/containers in accordance with local regulations.</p> <p>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.</p>	<p>Danger</p> <p>Mortel en cas d'ingestion. Provoque une irritation cutanée.</p> <p>Conseils :</p> <p>Porter des gants de protection. Se laver les mains soigneusement après manipulation. Ne pas manger, boire ou fumer en manipulant ce produit.</p> <p>Garder sous clef. Éliminer le contenu/récipient conformément aux règlements locaux en vigueur.</p> <p>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.</p>

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





***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

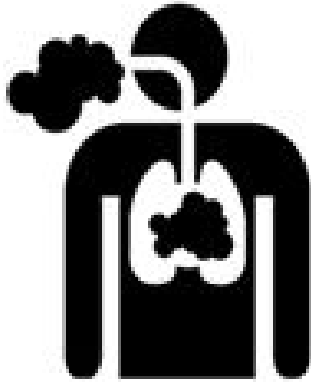
Search Products Here

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". A left-hand navigation menu includes options for "All Products", "Locations", "Manufacturers", and "MSDSonline Search". The central "MSDS Search" section contains a search bar with the text "Search by Product Name, Manufacturer, CAS#, and/or Product Code or search by indexed fields, Ingredient, Ingredient CAS#, UNNAF, DC" and a search button. Below the search bar are three dropdown menus: "Locations" (set to "Brant Community Healthcare System (942)"), "Groups" (set to "Select Group"), and "Product Data" (set to "Select Product Data"). There is also a "Product Status" dropdown set to "Active" and a "Custom Module" input field. "Search" and "Reset" buttons are located below the dropdowns. At the bottom of the search section, there is a link: "Product name starts with: 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 department or group list or the total product list for the entire facility



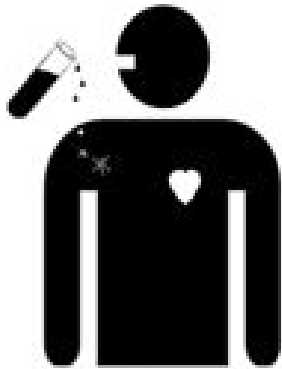
Routes of Entry



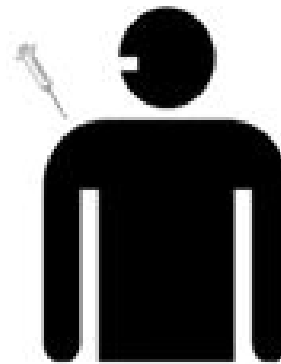
Inhalation



Ingestion



Absorption



Injection/Penetration Wounds





Inhalation

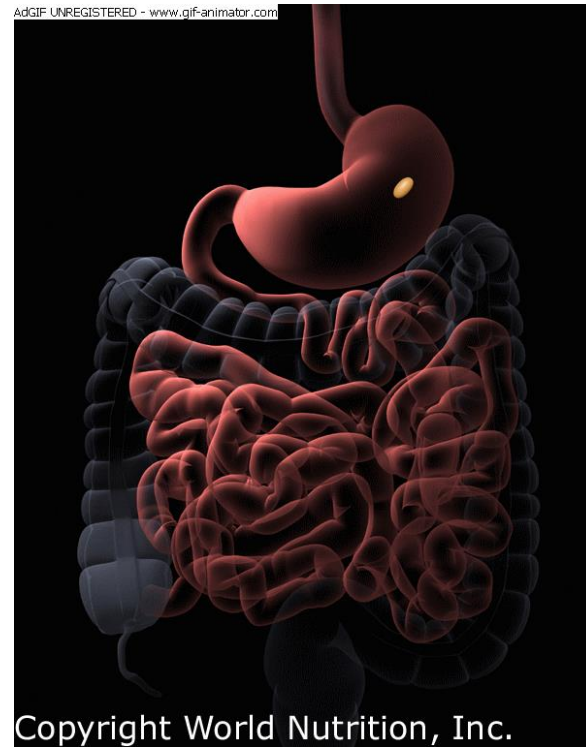
The material enters your body by breathing it in. Airborne contaminants can be easily absorbed through the tissue and become in constant contact with the air we breathe.





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



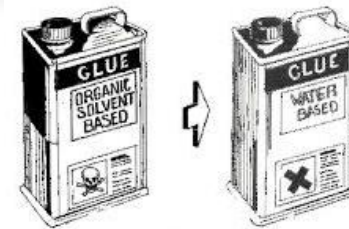
Control of Hazards

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.

