Toxic Toolkit

A reference guide to Household Hazardous Waste

Produced by the

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How to determine if a product is hazardous

Look for these words on the product label:

- **Danger** indicates extremely hazardous products.
- **Warning** and **Caution** indicate less hazardous products.
- **Toxic** indicates a poisonous product which can cause illness. Pesticides, paint thinners, auto products and some cleaners are toxic. Look for warning labels like:

  Harmful or fatal if swallowed
  Use only in well ventilated area

- **Flammable** indicates a product which can catch fire spontaneously or burn easily. Paint thinners, solvents and auto products are flammable home products. Look for warning labels like:

  Do not use near heat or flame
  Combustible
  Do not smoke while using this product

- **Corrosive** indicates a product which can eat through materials or living tissue. Oven cleaners, drain cleaners and toilet bowl cleaners are common corrosive products. Look for warning labels like:

  Causes severe burns on contact
  Can burn eyes, skin, throat

- **Reactive** indicates a product which can react with air, water or other substances to cause rapid heating or explosions. Muriatic acid is reactive when mixed with water.

A hazardous product can be toxic, flammable, corrosive, reactive or any combination of these.

How to safely store household hazardous products

- Store products on high selves or in locked cabinets away from children
- Protect the label
- Store household hazardous products in the original container
- Close containers tightly

- Keep containers dry to prevent corrosion
- Store similar products together to reduce any danger from reactions if containers should leak or contents should spill

Advertising and our use of household hazardous products

Whether we realize it or not we are constantly being bombarded with advertising messages encouraging us to buy household hazardous products. Many household cleaning products introduced to consumers are unnecessary and have safer alternatives. For example, Consumer Reports found that plain water was more effective than half the glass cleaners on the market.

For more information, call the RCBC Hotline at 604-RECYCLE or 1-800-667-4321.

What to do with household hazardous products

DO use it up

Use a household hazardous product for its intended purpose.

DO give the product to someone else who can use it

If the product cannot be used for its intended purpose, give it to someone who can.

DO avoid buying hazardous products in the future

The best thing to do is avoid buying household hazardous products at all. Before buying a product, determine how it can be safely disposed.

DO save the product for a Municipal Collection Day

Many communities hold Household Hazardous Waste Round-ups where household hazardous products can be taken to a collection site for safe disposal.

Call the RCBC Hotline at 604-RECYCLE or 1-800-667-4321 to find out if or when there will be one happening in the area.

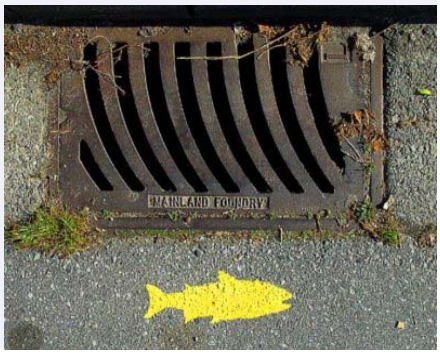
DO dispose of it safely

Most of B.C.'s residential garbage is collected at the curbside by private collection companies or taken to drop-off centers by individuals.

Ultimately, the garbage ends up in the landfill. Most landfills are not designed for household hazardous waste as they can leak into water supplies and cause air pollution.

EVER NOTICE...

The yellow fish painted beside a storm drain? The yellow fish is there to remind us that the storm drain empties into the local stream. The education program is carried out by local residents dedicated to protecting their local streams. For more information, visit www-heb.pac.dfo-mpo.gc.ca.



What to do with household hazardous products

DON'T pour it down the drain

When household hazardous products are poured down the sink or flushed down the toilet, they enter either a septic or municipal sewer system.

Both systems rely on bacteria to breakdown the wastewater. Toxic materials in the wastewater can kill the beneficial bacteria, causing the system to improperly operate. Also, some toxic material can pass through both systems unchanged and pollute water downstream.

DON'T dump or bury it

Dumped or buried hazardous waste can leach and contaminate soil or water, Especially if the waste is non-biodegradable.

IMPORTANT NOTE:

Even if a container seems empty, it is rarely empty of all chemicals. There is always some liquid the pump will not spray and chemical residue may remain on the walls of the container.

DON'T pour it into ditches, storm drains or gutters

Household hazardous waste poured into ditches, storm drains or gutters travel directly to nearby waterways. It can poison plants and wildlife, contaminate the soil and harm children and adults who come into contact with it.

DON'T burn it

Burning hazardous waste can produce poisonous fumes, which can contribute to air pollution or cause an explosion. Controlled burning in special hazardous waste incinerators by trained professionals can be a good disposal method however, open burning by an untrained homeowner is not. Also, some hazardous materials may not burn away completely and become concentrated in ash.

For more information, call the RCBC Hotline at 604-RECYCLE or 1-800-667-4321.

Safer Alternatives

Household cleaners and polishes

Some cleaners contain hazardous ingredients that can burn eyes, skin or lungs. These products need to be handled carefully during use, storage and disposal. Fortunately, there are a number of less toxic choices.

Drain cleaners

Consumer Reports do not recommend commercial drain cleaners because they can cause chemical burns and may not be very effective.

Clogs can be prevented by pouring boiling water down a drain, or using enzymes to break down grease and soap. Also, a plunger, snake or hose-end bladder are tools that can be employed to unclog drains without using harmful chemicals.

Drain cleaner

To clean your drains, pour 1/2 cup of baking soda down the drain followed by 1/2 cup of vinegar. Let stand for 15 minutes and flush with boiling water.

All-purpose cleaner

Mix 1/2 cup (125 ml) of pure soap and 1 gallon (4 litres) of hot water. To help cut grease add 1/4 cup of lemon juice.

All-purpose cleaners

All-purpose cleaners are used for cleaning surfaces around the home, like walls, floors, woodwork, counters and tile. It is best to buy fewer products which can be used for several purposes. For example, castile soap is a mild, versatile cleaner.

Safer Alternatives

Bathroom cleaners and disinfectants

Many bathroom cleaners are also disinfectants that kill germs, viruses or mildew. Disinfectants kill germs on surfaces temporarily, but cannot kill germs in the air or provide long-lasting disinfection.

A special cleaner for the bathroom is often unnecessary. A good general purpose cleaner and a scouring powder should be adequate in most homes.

Toilet bowl cleaners

Many commercial toilet bowl cleaners are strong acids that can burn eyes and skin.

A special cleaner for the toilet is unnecessary. In many cases, soap and water or a non-chlorine scouring powder will do the job, unless the porcelain is old, damaged or your water has high mineral content. Stains can be removed by carefully rubbing with fine, wet/dry sandpaper or rottenstone. Frequent and thorough cleaning is the key.

Disinfectant properties of some toilet bowl cleaners, under normal circumstances, are not needed. Generally, toilet bowls do not stay germ -free long after cleaning.

Disinfecting/deodorizing cleaner

Add 1/2 cup of borax to 4 litres of warm water.

Oven cleaners

Most commercial oven cleaners contain lye which is corrosive to eyes and skin. It is best to use an oven cleaner without lye or use a mixture of baking soda, soap and water with a copper scrubber and lots of elbow grease.

Prevent the need for caustic oven cleaners by placing aluminum foil or a metal tray to catch drips.

For more information, call the RCBC Hotline at 604-RECYCLE or 1-800-667-4321.

Safer Alternatives

Scouring cleaners

Most scouring powders combine a surfactant with an abrasive powder. A common abrasive used is silica which is very dangerous if inhaled. A few scouring cleaners contain chlorine bleach which can emit hazardous gases if mixed with ammonia or acid cleaners, such as toilet bowl cleaners.

Scouring solution

Mix 125 ml baking soda and 125 ml water into a bowl.

Automatic dishwasher detergents

Automatic dishwasher detergents are more hazardous than products for washing dishes by hand. Besides being stronger, they may contain phosphates and chlorine bleach. Phosphates cause water pollution, especially in lakes and rivers.

Detergents that are chlorine and phosphate-free, are available.

Laundry bleaches and boosters

Household chlorine bleach is an eye and lung irritant. Non-chlorine bleaches are safer alternatives, but they do not have disinfectant properties. Look for the words "non-chlorine bleach" or "hydrogen peroxide" on the product label.

Safer Alternatives

Metal cleaners and polishes

Some metal cleaners and polishes contain hazardous ingredients like petroleum distillates or ammonia.

Copper cleaners

Use equal parts vinegar and salt. Scrub paste onto copper and rinse immediately after to prevent corrosion.

Stain removers

Commercial spot removers often contain toxic solvents such as petroleum naphtha or chlorinated hydrocarbons. Many spots can be effectively removed using relatively non-toxic materials such as water, dishwashing liquid or rubbing alcohol.

Wine stain

Immediately pour salt or cold soda water on the stain and soak in milk before washing.

Grease stain

Use borax on a damp cloth.

Glass cleaners

Glass cleaners are low in acute toxicity because they are diluted. However, some contain ingredients such as glycol ethers and ammonia, which may pose chronic health hazards through inhalation or skin absorption.

Consumer Reports found that plain water was more effective than half of the commercial glass cleaners on the market and that a mix of lemon juice and water was most effective for removing greasy fingerprints.

For more information, call the RCBC Hotline at 604-RECYCLE or 1-800-667-4321.

What does the label mean

It is important to read product labels to determine if the product is potentially toxic to humans or the environment. However, keep in mind that labels can be misleading. Federal guidelines regarding product labelling are incomplete and not strictly enforced. It is important to question what the product label claims.

Natural

There is no legal definition of the word *natural*. Many products that could be considered natural are also toxic. Natural does not always mean that a product is safer. For example, petroleum could be considered natural because it comes from the earth however, petroleum is flammable and toxic.

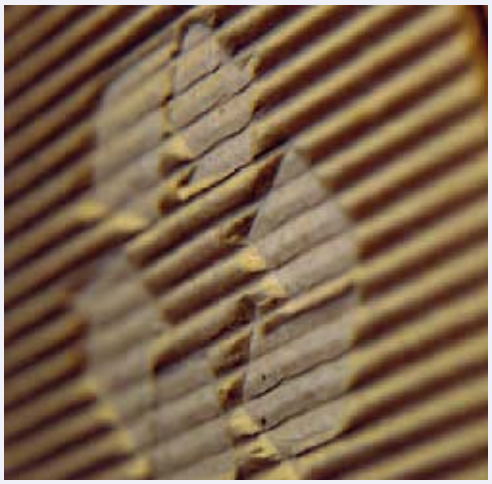
Biodegradable

When encountering the term *biodegradable* on a product, think about what it is referring to. Is the packaging biodegradable or are the contents biodegradable? While biodegradable packaging is better for the environment, it is unlikely that the package will ever have the opportunity to degrade in a landfill. Most substances need light and oxygen to break down, neither are readily available in a landfill. If the contents are biodegradable this does not necessarily mean that the product is entirely safe for you or the environment. Chlorine bleach is biodegradable, however both it and its by-products are toxic.

What does the label mean

Environmentally friendly or environmentally safe

These are misleading claims because every product has an impact on the environment. Also, without any specific environmental standards cited, the claim is debatable.



Recyclable

The term *recyclable* indicates a product or its packaging can be diverted from the waste stream and processed into new products.

Keep in mind, even if the product or its packaging is recyclable, there may not be a facility in the area as recycling programs vary from municipalities.

Call the RCBC Hotline at 604-RECYCLE or 1-800-667-4321 to find out if there are facilities in the area to recycle the product.

Made from recycled materials

The term *recycled* can mean that scrap from the production process is put back in the manufacturing mix. A better claim to look for is **Post Consumer Content** which indicates that the material has been collected through recycling programs. Check the label to see if it indicates the % of in-plant and post-consumer content. Look for a post-consumer content of 30% or higher.

Ozone friendly or CFC free

Chlorofluorocarbons, CFCs, is an ozone-depleted substance that has been banned from aerosols since the early eighties. They have since been replaced with hydrochlorofluorocarbons, HCFCs. However, HCFCs can not be called *ozone friendly* because they also deplete the ozone layer, but to a lesser extent.

The safest alternative is hydrofluorocarbons, HFCs. HFCs contain no chlorine and have no known effects on the ozone layer.

For more information, call the RCBC Hotline at 604-RECYCLE or 1-800-667-4321.

What does the label mean

Non-toxic

This is a vague claim that should be explained or substantiated by certification standards. Usually this claim does not refer to the product's environmental effects.

Compostable

A product or packaging is compostable if it produces a homogenous and stable humus-like substance in a timely matter. The material should break down in the same amount of time it takes for leaves, grass or food to break down. Also, it is important to note whether a home composter or an industrial composting facility is required. Few municipalities operate industrial composting facilities.

Phosphate free

Most soaps no longer contain phosphates however, there are still some out there that do. Naturally occurring phosphorus is beneficial for aquatic environments as it is vital for algal growth however, an excess of it can be harmful. Phosphates trigger algal growth and when they eventually die, oxygen is required for their decomposition. If there is an excess of algal growth, the resulting decomposition can leave little to no oxygen for the rest of the aquatic organisms.

Sources

"Reassessing Environmental Labelling: The Consumer Perspective". Environmentally Sound Packaging Coalition of Canada, April 1997.

"Consumer Factsheet: Green Products and Labelling". Environmentally Sound Packaging Coalition of Canada, 1997.

"Environmental claims: A guide for industry and advertisers". Canadian Standards Association, 2008.

Who is responsible for safe disposal

B.C. is moving in a new direction for dealing with household hazardous waste. Today, producers and consumers are responsible for the costs and effects of household hazardous waste disposal. This is known as Extended Producer Responsibility, EPR.

Manufacturers of goods and packaging are now being asked to manage their products from *cradle-to-grave* which means they have to be responsible for:

- the consequences of using certain raw materials
- the effects the production process has on the environment and
- what happens to the products when it is time for disposal

By making producers responsible for all aspects of their products life, incentives are created for the product's redesign and packaging to make them more environmentally friendly. Producers have the ultimate authority to design *cleaner* products.

Environmental Handling Fee

Environmental Handling Fees, EHFs, are collected by industry to supplement the cost of administration, collection, transportation and recycling of the products they produce. Although EHFs are displayed as a separate item when you purchase a product, they should be considered part of the real cost of manufacturing the product. Compared to raising taxes, EHFs are a cheaper and more efficient way to pay for safe disposal. They ensure that it is the manufacturers and the consumers who pay for proper disposal.

For more information, call the RCBC Hotline at 604-RECYCLE or 1-800-667-4321.

What products are accepted at collection depots

In B.C., household hazardous products such as paint, pesticides, flammable liquids and gasoline are included in a recycling program and can be taken to designated collection depots for proper disposal. This industry-funded program is partially supported through the collection of Environmental Handling Fees at the point of purchase.

For information on the nearest collection depot, contact the RCBC Hotline at 604-RECYCLE or 1-800-667-4321.

CAN take to the collection depot:

- Paint, aerosol paint or architectural coatings intended for household use
- Acrylic driveway sealer
- Marine enamel or bottom paint
- Solvent intended for household use, with a flammable symbol or a warning of fire hazard such as "Keep away from heat, open flame or spark" on the label
- Pesticide with a poison symbol and a **Pest Control Product** registration number on the label
- Gasoline sold for use in spark ignition engines and is contained in an ULC approved container

CAN'T take to the collection depot:

- Product with no identification
- Product in a container that is leaking or improperly sealed
- Diesel fuel or gaseous fuel such as propane or butane
- Product label saying it is for commercial, agricultural or industrial use
- Empty solvent or pesticide containers
- Non-aerosol automotive, industrial or multi-component paint
- Product is a diluted, ready-to-use pesticide or solvent without "poisonous" or "flammable" symbols or warnings
- Cosmetic, insect repellant, disinfectant or pet product