



COMMUNITY ACTION NETWORK

# Protect Your Community from Household Hazardous Waste



# Protect Your Community from Household Hazardous Waste

Earth Day Canada presents the *Protect Your Community from Household Hazardous Waste* project. It's your guide to combating the harmful effects of household hazardous products.

Note: Use this project in conjunction with your CAN Manual. The Project Planner Pack may help you as well.

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## About Earth Day Canada

Earth Day Canada is your link to positive action in your community.

Earth Day Canada is a national environmental charitable organization that provides youth and community organizations, schools, businesses, government departments and individual Canadians with an opportunity to make a positive difference.

We have a network that now totals thousands of organizers in every sector — all working for positive change.

Operating year-round, our mission is to improve the state of the environment by motivating and helping individual Canadians just like you to take positive environmental action. We offer interactive programs, a free community Earth Day/Earth Week public Events Calendar (available in March and April), and information and tools you'll use again and again.

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*Earth Day Canada is the national organizer of Earth Day/Earth Week in Canada.*

April 22 is International Earth Day — the largest environmental event in the world. Every Earth Day, millions of Canadians join people in about 100 countries in positive environmental action. This popular event has grown into Earth Week in Canada to accommodate scores of events that take place across the country.

## Protect Your Community from Household Hazardous Waste

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## Goals

- Learn about household hazardous waste (hhw) and its dangerous effects on human health, wildlife, and the ecosystems we all live within.
- Encourage people to stop dumping harmful chemicals in landfill sites, incinerators, and in the water supply.
- Encourage people to reduce their dependence on hazardous chemical cleaners.
- Make alternative cleaners.

## Challenge

Did you know that of the several million chemicals in existence, 50,000 have commercial uses? It's true! The Ontario Ministry of the Environment and Energy (MOEE) says that these chemicals can be hazardous if they're toxic (poisonous), corrosive (strong acids or alkalis), flammable, explosive, leachate (penetrate and contaminate the soil), or reactive (aren't dangerous on their own but can be

if they are combined with other chemicals).

What's more, products containing these substances (check labels of products) are stored in the kitchens, bathrooms, closets, and garages of Canadian homes. Every year, the average Canadian throws out 23 kilograms (50 pounds) of household hazardous waste (MOEE).

Source: The Ontario Ministry of Environment and Energy

## *You, hazardous products, and the environment*

### **Improper disposal of hhw**

Products with hazardous chemicals can harm human health, wildlife, and the ecosystems we all live within.

Here's how:

- In a landfill, the chemicals from these products travel through the garbage and become part of the leachate (a liquid composed of chemicals and other dissolved components of the garbage). Because leachate contains a variety of harmful ingredients, it has to be controlled to prevent it from contaminating the environment and drinking water supplies.
- If these products escape detection before entering an incinerator, the chemicals are burned and may become an air pollutant or stay behind in the ashes.
- Our sewer systems and municipal water treatment centres—which are not designed to treat chemicals—regularly receive chemicals from commercial cleaning products. When they enter a septic tank system or sewage treatment plant, hazardous chemicals can destroy the biological systems used to treat sewage. Most people aren't aware that dumping

hazardous substances down the drain is dangerous. Sewage treatment plants are designed to treat biological waste, not dangerous chemicals that are poured down drains (Earth Day Canada).

### **The use of products with hazardous ingredients**

Commonly used hazardous products can pollute the air, water, and soil, and recombine to form other even more dangerous compounds. Persistent substances can build up in the bodies of wildlife. They can also accumulate in the fruits and vegetables we grow and in the livestock we raise. Trace amounts can contaminate groundwater supplies and well water.

What does "toxic" mean? Scientists say something is toxic if it causes illness or damage when inhaled, swallowed, or absorbed through the skin.

Every year, deadly pesticides, cleaners, and drugs poison thousands of children and pets. When used indoors, chemicals from household products can cause headaches, rashes, asthma, allergies, and other health problems.





Many consumer products contain ingredients that with years of exposure and at higher concentrations can cause cancer, brain damage, genetic mutations, and other serious problems. Source: The Conservation Council of Ontario

### What are some examples of household hazardous products?

(Source: Conservation Council of Ontario)

- weed and insect killers
- mould and mildew cleaners
- chlorine bleach
- chemical fertilizers
- rug and carpet shampoo
- moth balls
- reactive drain cleaners
- furniture and floor polish
- brass, silver, and other metal polish
- fabric dyes
- synthetic air fresheners
- disposable batteries
- paint strippers, turpentine, and other solvents
- oil-based paints and enamels
- epoxy, rubber cement and “super glue”
- film developer and other “hobby” chemicals
- gasoline, propane, and other fuel
- motor oil, brake and transmission fluid, anti-freeze, and other auto products
- over the counter and prescription medicines

### FAST FACTS

Source of facts from 1 to 7: Conservation Council of Ontario

1. Every year, Canadian families buy 40 to 50 different kinds of flammable, corrosive, and poisonous cleaners, pesticides, paints, and other products.
2. Every day, tonnes of harsh cleansers, drain cleaners, and disinfectants are poured down our drains and flushed down our toilets.
3. Unwanted hazardous chemicals in rusting cans and unlabelled bottles are sitting in garages, basements, and kitchen cabinets and releasing airborne contaminants.
4. The air pollution in our homes is five or six times worse than the air we breathe outdoors.
5. Phosphate-free detergents may contain harmful chemical substitutes (eg. NTA and EDTA).
6. Oven cleaners contain ammonia and lye which can burn your skin, irritate your lungs, and damage the environment.
7. Floor and furniture polishes contain chemicals, such as volatile chlorinated hydrocarbons and formaldehyde, which can harm your lungs if inhaled.
8. Some detergents contain chemicals called phosphates. Phosphates travel through our water systems and are eventually released into the environment. Phosphates fertilize plants in the water, causing them to grow out of control. When the plants decay, they use up the oxygen which fish and other water organisms need to live (Earth Day Canada).
9. Most detergents also contain chemical agents, such as bleaches, whiteners, and surfactants which contribute to water pollution (Pollution Probe Foundation. *The Canadian Green Consumer Guide*. McClelland and Stewart. Toronto, Ontario, 1991).
10. The Great Lakes are part of an ecosystem which includes the water bodies and lands which drain into them. The lakes receive both natural and human-made pollutants. The rivers that drain into the lakes have become contaminated with chemicals. Many of these chemicals have been shown to be toxic and/or cancer causing, even at very low concentrations. Their build-up in the Great Lakes' ecosystem affects entire food chains, from micro-organisms to people who live in the surrounding areas (Environment Canada, 1991).

# Solutions

## Just say “NO” to toxic products!

- NO more endangering human health, wildlife, and the ecosystems we all live within
- NO more spending money on costly commercial, chemical cleaning products
- NO more hassles with excess packaging from cleaning products
- LESS strain on landfill sites and incinerators
- LESS strain on sewage treatment plants and drinking water treatment facilities

## 1. Learn more about household hazardous waste

### *Gather Info:*

- a. Check out the enclosed recipe book for non-toxic cleaning recipes and quick cleaning tips.
- b. Contact your Public Works Department or other agency responsible for waste disposal, and ask:
  - What is your community’s source of drinking water? See “e” on page 6.
  - What are they doing to help stop pollution from household hazardous waste?
  - Do they have a household hazardous waste disposal program in place to make sure harmful products don’t contaminate the environment? If so:
    - Do they tell residents where and how to safely dispose of hazardous waste?
    - Where is the location of the household hazardous waste depot?
    - When are the collection days for household hazardous waste?
- c. What products do your organization and household use? Find out by doing a “toxic” audit of your organization and home.
  - Find out what types of cleaners are currently used, and what information is on the labels.
  - Suggest alternatives to the appropriate individuals.

### *Learn how hhw impacts your community:*

#### *Suggestions for trips, surveys, and studies*

- a. Find out how water is cleaned. Contact your Public Works Department to arrange for your group to visit the local water treatment centre or sewage treatment plant.
- b. Find out what measures are in your community to prevent groundwater contamination from landfills. Contact your Public Works Department to arrange for your group to visit the local dump or landfill site. Ask them what precautions have been taken at that site to stop chemicals in the dump or landfill from leaking into the groundwater.
- c. Check out the quantities of available harmful commercial cleaners. Arrange for your group to survey local supermarkets to investigate the types of products on the market. (Refer to the *Consumer Survey* booklet to find out how to organize a group survey.) Make note of the cleaning products that claim to be environmentally friendly. If these supermarkets don’t sell alternative cleaners, urge the store managers to stock them. If the demand is high, they’ll accommodate their customers. Urge other individuals to ask for these products.
- d. Have your group compare the prices of home-made cleaners with commercial ones. Making your own alternative cleaners is usually much cheaper than buying commercial cleaners. Tell family members and the community about your results! Spread the word that alternative cleaners are cheaper and better for human health and the environment. (See *Share Information* section.)

e. Have your group study nearby streams, creeks, or lakes for high levels of certain chemicals from household products. Contact local environmental groups, science educators, and stores that sell educational materials to find out if they have water chemistry test kits and do-it-yourself

books. You may want to do a broad water study or focus on a specific pollutant you think is present. Can you determine a possible source of the chemical discharge? Is the source natural or human-made? What are the environmental impacts from the chemicals found, if any?

## 2. Share information: displays and workshops

Your group has the option of setting up a display or holding workshops to share your knowledge with others. A display can include your home-made alternative cleaners with information on ingredients and quick cleaning tips; a workshop can teach people how to make alternative cleaners.

Displays and/or workshops can take place in your organization, at an ecofestival, or in a public site (library, community centre, City Hall).

### Suggested topics/display materials:

- information about household hazardous waste, its harmful effects on human health, wildlife, and the ecosystems we all live within

- information on what your municipal, regional, district, or provincial government is doing to stop this type of pollution, the location of the nearest hazardous waste depot, and the dates of hazardous waste collections
- a comparison of the effectiveness between commercial cleaners (hazardous chemical cleaners and cleaners that claim to have a lower environmental impact) and home-made alternative cleaners

*Let people know that although harmful chemical cleansers may have faster results, the convenience isn't worth polluting our environment.*

## 3. Make alternative cleaners

Your group can make alternative cleaners for use at home and in your organization, to sell as a fundraising project, or to give away as gifts to friends and family members. Or you can stage workshops to show people how to switch over to using non-hazardous alternative cleaners.



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## Needs

- ***safety instructions and procedures***

The ingredients you will use to make your alternative cleaners are less harmful to the environment—but they're still a potential hazard if ingested!

Young children need to do this activity with the help and supervision of an adult.

Keep the cleaners away from small children and pets.

Clearly label your home-made alternative cleaners, and include a complete list of the ingredients. If accidents occur, the poison control centre will need this information.

- ***recipes*** (Refer to the enclosed recipe book.)

- ***basic ingredients:*** baking soda, borax, corn starch, lemon juice, olive oil, salt, soap flakes, steel wool, washing soda (sodium carbonate), white vinegar

(You'll find these ingredients at bulk food stores, health food stores, and in most supermarkets. If these products aren't available, ask the store manager to order them.)

- ***clean containers,*** such as plastic and glass bottles, to contain the cleaners
- ***labels*** on which to write the names of the cleaners and their ingredients (For convenience, it's a good idea to write the recipes right on the labels.)
- ***measuring utensils*** (cups and spoons) to measure portions of ingredients
- ***stirring spoons***

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## Information Sources

### Publications

*What We Can Do For Our Environment.* Hull, Quebec: Environment Canada, 1990. (819) 997-2800.

*Cleaner 'n Greener: Recipes for a Healthier Planet.* Toronto: Waste Management Corporation, 1993. (416) 923-2918 ext. 213

*The Canadian Green Consumer Guide.* Toronto: McClelland and Stewart, 1991.

*Household Toxics and Alternatives.* Toronto: Pollution Probe Foundation. (416) 926-1907.

*Little Book of Non-Toxic Cleaning Recipes.* Toronto: The Urban Environment Centre, 1992. (416) 461-9670.

*The Healthy Home* by Linda Mason Hunter. Pennsylvania: Rondale Press, 1989.

*The Natural Formula for Home and Garden* by Dan Wallace. Pennsylvania: Rodale Press.

*Pollution Prevention for the Great Lakes; Tips for Small Quantity Hazardous Waste Generators.* Oakville, Ontario: Environment Canada, 1991.

### Government departments

Contact the following government departments for information and to find out what they're doing to reduce the harmful effects of household hazardous waste on human health and the environment.

Environment Canada's Communications Office (General Inquiries: 1-800-668-6767)

Provincial Ministry/Department of Environment, Natural Resources, etc.

Public Works Department or another agency responsible for waste disposal

### Environmental organizations

Contact the following organizations for help and additional information:

Conservation Council of Ontario, 489 College St., Suite 506, Toronto, Ontario M6G 1A5 (416) 969-9367

Friends of the Earth, 251 Laurier Ave. W., Suite 701, Ottawa, Ontario K1P 5J6 (613) 230-3352

Toronto Environmental Alliance, 401 Richmond St. W., Suite 104, Toronto, Ontario M5V 3A8 (416) 348-0660

Pollution Probe Foundation, 12 Madison Avenue, Toronto, Ontario M5R 2S1 (416) 926-1907

Trout Unlimited Canada, P.O. Box 6270, Stn. D, Calgary, Alberta T2P 2C8 (403) 221-8373