

HENNEPIN COUNTY
MINNESOTA



Reducing hazardous
chemicals in your home
and green cleaning recipes

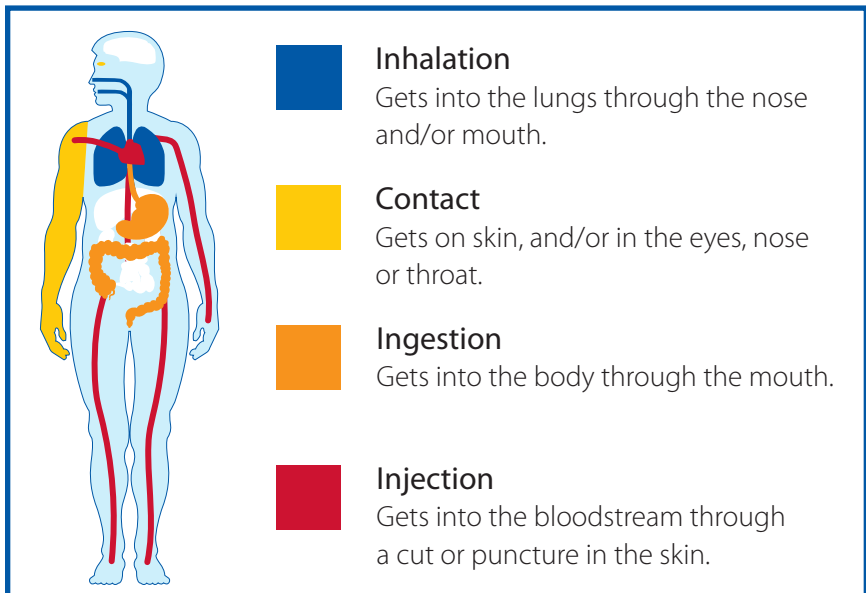
Why reducing hazardous chemicals is important

According to the U.S. Environmental Protection Agency, only a fraction of registered chemicals have gone through complete testing for human health concerns. Some chemicals have immediate toxic effects. Others are toxic to our bodies only after repeated, long-term exposure. These days it seems like every product comes with a warning, so you may not pay much attention to the words on the label. However, when it comes to hazardous products, reading the label is the easiest way to identify one.

Children and pets are impacted more significantly by the negative effects of chemicals. Pound for pound, children and pets breathe more air, drink more water and eat more food than adults. When children play, they crawl and put things in their mouths. Pets can pick up harmful chemicals on their bare paws, which they can then ingest when they clean their paws. As a result, children and pets have an increased chance of exposure to potential pollutants.

Exposure pathways for chemicals

Chemicals can enter our bodies through a number of “exposure pathways.”




Signal words

Federal law requires labeling of hazardous products by using these signal words. By understanding the difference in the use of signal words, you can determine how hazardous a product is.

Become a label reader

Look for signal words on labels and choose the least hazardous product

Less hazardous



More hazardous

Signal Word	Hazard Level
Caution	Mild/moderate hazard
Warning	Moderate hazard
Danger	Extremely flammable, corrosive or highly toxic
Poison	Highly toxic

Hazard levels of common household products

Caution

- Ammonia
- Dishwashing detergent
- Soft scrub cleanser
- Laundry detergent
- All-purpose cleaners

Danger

- Metal polish
- Lighter fuel
- Rubber cement
- Oven cleaner
- Drain cleaner
- Chlorine bleach

Warning

- Pine-based floor cleaners
- Antifreeze
- Bathroom tile cleaner

Poison

- Lye
- Mouse/rat poison
- Ant/insect sprays



Reduce hazardous chemicals in your home

- Buy fewer household hazardous products by making your own cleaners using recipes in this guide.
- Remove your shoes at the entrance to your home so you don't track chemicals from outside throughout your house.
- Use pump spray products instead of aerosols as aerosol mist is more easily inhaled.
- Avoid chemical air fresheners and candles.
- Avoid chemicals used in traditional dry cleaning.
- Avoid chemical pesticides and herbicides.

Safe storage tips

- Keep products out of reach of children and animals.
- Store products that say "prevent freezing" (such as latex paint) indoors.
- Never mix chemicals together (such as bleach and ammonia).
- Keep products away from ignition sources.
- Only buy the amount of product that you will use.
- Keep products in original containers and make sure the label is legible.

Safely dispose of household hazardous waste

Improper disposal of household hazardous waste, such as throwing it in the garbage or pouring it down the drain or storm sewer, could harm your family, your garbage hauler, or the environment.

Hazardous waste from households includes automotive products, cleaners, lawn and garden products, mercury-containing items, paints, stains, paint thinners, and pesticides.

Hennepin County Drop-Off Facilities accept these items. They can also be brought to seasonal collection events for disposal. Learn more about hazardous waste disposal at:



[hennepin.us/green-disposal-guide/
household-hazardous-waste](https://hennepin.us/green-disposal-guide/household-hazardous-waste)

Green cleaning recipes

You can protect your health and the health of your family, pets and the environment by making your own cleaning products with simple, less-toxic ingredients. Many common household products, such as baking soda, lemon juice, vinegar and liquid dish soap, can make effective and inexpensive cleaners.

Basic cleaning supplies

- Baking soda
- Lemon juice
- Washing soda
- White vinegar
- Drain snake
- Pumice stone



Tips and tricks

- Mix your homemade cleaners in small batches.
- Label all containers with ingredients, intended use and date made.
- Keep all containers out of reach of children and pets.
- Keep all containers closed when not in use.
- Never use food or beverage containers for cleaning chemicals of any type.
- Check product on a small area to test for colorfastness (carpet and clothing stain removal). Vinegar can leach color from some items.

Basic properties and uses for cleaning supplies

Baking soda (sodium bicarbonate)



- Odorless
- Anti-fungal properties
- Deodorizer
- Stain remover when diluted with warm water
- Fabric softener when added to rinse cycle
- Polisher – removes dirt without damaging surfaces

Lemon or lime juice



- Smell symbolizes cleanliness
- Acidic – can provide antibacterial/antiseptic properties
- Stain removing – let sit for a few minutes

Washing soda (sodium carbonate)



- Similar to baking soda (not for use in cooking)
- Odorless
- Stain remover – has alkaline properties
- Water softener - treats hard water
- Descale coffee machines or bathroom tiles

White vinegar



- Antibacterial
- Kills most mold
- Deodorizer
- Lime deposit remover
- Stain remover
- Fabric softener when added with laundry detergent
- Use to eliminate bacteria, mold and germs

Drain snake



- Helps clear clogged piping

Pumice stone

- Helps remove lime build up in toilets

Borax, non-chlorine bleach and washing soda can be



used by themselves as household cleaners and laundry products in accordance with label directions. All of these products are harmful if swallowed. Washing soda is not the same as baking soda and should not be used in place of baking soda.

- Use only non-chlorine bleach if you feel you must use a bleach product. Use it by itself.
- Avoid using bleach or ammonia. Never mix these products with each other or any other product.

Recipe cards

All-purpose cleaner



Ingredients

- ¼ cup white vinegar
- Water
- 1½ teaspoons non-antibacterial liquid dish soap
- Lemon juice (optional)

Instructions

In a 16 oz. spray bottle, add the vinegar and fill with water. Add dish soap last. Add lemon juice if desired.

Carpet cleaner



Ingredients

- ½ cup vinegar
- 1 teaspoon liquid soap
- White absorbent towels/cloth
- Warm water

Instructions

Mix vinegar and soap together in a bowl.

Absorb as much moisture as you can from the stained area with towels, rinse area with warm water and apply vinegar and soap solution, leave for 15 minutes, then rinse a towel with clean water and blot dry.

Floor cleaner (including wood)



Ingredients

- White vinegar
- Water

Instructions

Mix $\frac{1}{2}$ cup of white vinegar per gallon of water. Use a cloth or mop to wipe the floor.

Oven cleaner



Ingredients

- 1 cup or more baking soda
- 1 or 2 teaspoons of non-antibacterial dish soap

Instructions

Sprinkle water generously over bottom of oven, then cover the grime with enough baking soda so surface is totally white. Sprinkle or spray more water over the top. Let sit overnight. Wipe up the next morning; then with a bit of liquid soap on a damp scrub sponge or cloth, wash remaining residue from oven.

Dishwasher detergent



Ingredients

- ¼ cup washing soda
- 3 drops of non-antibacterial dish soap
- ¼ cup lemon juice (optional)

Instructions

Mix ingredients in a bowl and spoon into the dishwasher detergent area in your dishwasher. This recipe will clean one load of dishes.

Laundry detergent



Ingredients

- 4 tablespoons borax
- 4 tablespoons washing soda
- 1 gallon warm water
- ¼ cup lemon juice (optional)
- 4 tablespoons non-antibacterial dish soap

Instructions

Combine water, borax, lemon juice and washing soda in a gallon container. Add dishwashing liquid last, cover and shake until combined. Use ¼ cup per load of laundry.

Fabric softener



Ingredients

- 1 cup white vinegar

Instructions

Add to load of laundry when you add the detergent in the washing machine.

Toilet bowl cleaner



Ingredients

- 1 cup baking soda
- 1 cup white vinegar
- 1 pumice stone
- 1 toilet brush

Instructions

Sprinkle baking soda into toilet bowl, then drizzle vinegar and scrub with toilet brush.

Next, use a pumice stone to remove lime in bowl.

Unclog and deodorize drains



Ingredients

- 6 oz box baking soda
- 1 cup white vinegar
- Drain snake

Instructions

Sprinkle a generous amount of baking soda in and around the drain opening.

Follow with a cup of white vinegar.

Finish by flushing with very hot water.

Use drain snake to remove remaining clogs.

Repeat if needed.

Product purchasing tips

If you choose to purchase cleaning products instead of making your own, you can reduce exposure to harmful chemicals by purchasing less hazardous household products.

- Look for products that list all their ingredients on the label. Generally, fewer ingredients are better.
- Use a multi-purpose cleaner rather than buying many specialty cleaners.
- Choose products that are made from plant-based materials like citrus, seeds, vegetables, herbs or pine oils.
- Choose products that have low or no volatile organic compounds (VOCs). VOCs are toxic chemicals that are released into the air.
- Choose chlorine-free products.
- Choose water-based glues, adhesives and paints.
- Choose the least toxic product to do the job. A product with the signal word Caution on its label is less hazardous than a product with the signal word Warning, Danger or Poison.
- Look for environmentally friendly certifications:
 - Green Seal certification: Products have been assessed for meeting rigorous performance, health and environmental criteria.
 - U.S. EPA Safer Choice: Products with the Safer Choice label help consumers and commercial buyers identify products with safer chemical ingredients, without sacrificing quality or performance.
- Learn more about the products you buy:
 - Consumer Products Information Database:
whatsinproducts.com

