Tips for Green Leaders

in-
Frederick County

Natural Household Cleaners

Cleaning Made Safe and Healthy

Conventional cleaners contain some of the most dangerous chemicals found in the home, but these chemicals are not always listed on the labels. Many cleaners contain known carcinogens (cancer-causing substances) and endocrine disrupters (cause reproductive disorders), and some emit large doses of VOCs (volatile organic compounds) that contribute to smog.

The healthiest and most environmentally-friendly products are vegetable-derived, perhaps with some mineral content. The least environmentally-friendly products are entirely petroleum-derived, do not readily biodegrade, and contain highly toxic or carcinogenic components. In the middle are products that are petroleum based but less toxic, as well as cleaners that contain both plant and petroleum components.

When possible, use non-toxic products to clean your home. Many of these products are just as effective as their toxic counterparts. Better yet, they are safer to use, and less expensive. One way to ensure you are using safe cleaners is to make your own using natural ingredients.

Basic ingredients for homemade cleaners:

- **Baking Soda** (sodium bicarbonate) works as a deodorizer, mild abrasive, and stain remover. It is non-toxic to humans, inexpensive, and versatile.

- **White, distilled vinegar** (acetic acid) is a powerful deodorizer that repels grease, helps prevent mold and mildew, and dissolves soap film and mineral deposits.

- **Borax** cleans, deodorizes, disinfects, and softens water. Borax can usually be found with laundry products in grocery stores.

- **Castile soap** dissolves oils that bind dirt to surfaces. Made from vegetable sources rather than petroleum, castile soap biodegrades quickly and comes from renewable resources.

- **Essential oils** can provide a pleasant smell and make a dirty job more enjoyable.

Resources:

Cleaning recipe

Websites:

- Boulder County recycling webpage
  [ecocycle.org/hazwaste/ecofriendly-cleaning](http://ecocycle.org/hazwaste/ecofriendly-cleaning)

- Earth Easy, Solutions for Sustainable Living
  [eartheasy.com/live_nontoxic_solutions.htm](http://eartheasy.com/live_nontoxic_solutions.htm)

- National Ag Safety database
  [tinyurl.com/6fn2fge](http://tinyurl.com/6fn2fge)

Cleaning recipe Books:

- **Clean House, Clean Planet** by Karen Logan,
  ISBN: 9780671535957

- The Green kitchen Handbook
  by Annie Berthold-Bon,
  ISBN: 0060951869

- **Home Safe Home**
  by Debra Dadd-Redalia,
  ISBN: 9780882821139

References:

- National institutes of Health, National Library of Medicine, Household Products database
  Search the database for household products to find out what is in them and their potential health effects.

- The Consumer union Guide to Environmental Labels
  [www.eco-labels.org](http://www.eco-labels.org)
  Defines terms used in advertising and on labels, such as “earth smart” and “biodegradable,” and explains product regulations.
Environmental impacts of Conventional Cleaners

Phosphates are minerals that act as water softeners. They can be very effective cleaners, but are also harmful to the environment in large quantities. When cleaning products are washed down the drain, phosphates enter waterways and cause rapid algae growth, decreasing water clarity and lowering dissolved oxygen. Many states have banned phosphates from laundry detergent and other cleaning products, but automatic dishwasher detergents are usually exempt from these restrictions.

The key ingredients in many cleaners are the detergents themselves, called surfactants. Most surfactants are petroleum based. Petroleum is a limited resource and its extraction often results in pollution and habitat destruction.

Responsible use of bleach means minimal use. Chlorine combines with organic materials in the environment to create dangerous chlorinated organic compounds that are harmful to people and wildlife. Use bleach only if absolutely required, or try a peroxide-based bleach substitute.

It is important to determine the life cycle of a product before purchase. Ask questions about the manufacturing process, packaging, shipping, performance, and resource recovery. The answers will help to determine if the product is environmentally friendly.

To disinfect or not to disinfect?

Many households rely on disinfectants like chlorine bleach to stop the spread of disease. However, the use of disinfectants poses some serious problems. A product can only be advertised as a disinfectant in the U.S. if it is registered as a pesticide with the EPA. Like some pesticides, disinfectants can be dangerous for our health, increasing the risk of asthma and acting as endocrine disruptors (which cause reproductive disorders) in some cases. Their production can also be harmful to the environment. But, perhaps most importantly, disinfectants may actually do the opposite of that which we intend. They may increase our likelihood of getting sick for two reasons. 1) Being exposed to some germs helps the immune system learn to fight off disease. 2) Strong disinfectants that kill 99.9% of germs leave behind the strongest 0.1% of germs. This repeated selection of disinfectant-resistant germs creates superbugs that humans can no longer control.

Disinfectant Alternatives:
- Undiluted vinegar
- Soap and hot water
- Cleaners containing essential oils
- UV sterilizing rod
- Botanical disinfectants
  To learn more, visit: tinyurl.com/ctt9nph