



# 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 disruptors (cause reproductive disorders), and some emit large doses of VOCs (volatile organic compounds) that contribute to smog.



## ENVIRONMENTAL IMPACTS OF CONVENTIONAL CLEANERS



Phosphates in waterways cause rapid algae growth, decreased water clarity, and lower dissolved oxygen levels. Many states, including Maryland, have banned phosphates from laundry detergent and other cleaning products.

Surfactants, or detergents are often petroleum-based. Petroleum is a limited resource and its extraction often results in pollution and habitat destruction. Look for environmentally-friendly detergents that use plant-based ingredients.

Chlorine bleach 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.**



# To disinfect or not to disinfect?

The use of disinfectants can also be harmful to the environment and may actually do the opposite of that which we intend. Being exposed to some germs helps the immune system learn to fight off disease. 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. A product can only be advertised as a disinfectant in the U.S. if it is registered as a pesticide with the EPA.

**NOTE:** During a public health crisis, like COVID-19, please refer to the disinfectant guidelines recommended by the [Center for Disease Control and Prevention](#).

## DISINFECTANT ALTERNATIVES



Soap and hot water



Homemade cleaners containing essential oils



UV sterilizing rod



Botanical disinfectants

**NOTE:** During a public health crisis, like COVID-19, please refer to the disinfectant guidelines recommended by the [Center for Disease Control and Prevention](#).

## 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.



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.



White, distilled vinegar (acetic acid) is a powerful deodorizer that repels grease, helps prevent mold and mildew, and dissolves soap film and mineral deposits. Vinegar works well on ceramic tiles in a ½ gallon of hot water.



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



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

## References

National Institute of Environmental Health Sciences | [www.niehs.nih.gov](http://www.niehs.nih.gov)  
Environmental Protection Agency - Safer Choice | [www.epa.gov/saferchoice](http://www.epa.gov/saferchoice)



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