In Search of Greener Cleaning Products
Cleaning Product Ratings and Ingredient Information

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There are thousands of cleaning products on the U.S. market. And they can be comprised of any of over 100,000 chemical ingredients. Some of these chemicals are acutely toxic through accidental ingestion and inhalation. Long-term, some of the chemicals are carcinogenic, neurotoxic, and cause harm to fertility, childhood development, and proper hormone levels.

To the average person trying to keep their home or clothes clean – to the business manager trying to keep their office habitable – to the educators that want their children to be safer – analyzing these products to find options that are least toxic or non-toxic can seem dizzying and overwhelming. Fortunately there are online tools that recommend product alternatives, and that make analyzing the safety of common consumer products much easier.

Major U.S. Environmental Rating Programs That Include Cleaning Products

EPA Safer Choice
epa.gov/saferchoice/products

The U.S. Environmental Protection Agency's Safer Choice rating program lists over 2,200 cleaning products that are rated to meet multiple environmental criteria. The database allows searches of rated products by: brand and product name, home or business use, fragrance added or fragrance free, and product use (e.g., dish soaps, floor care).

Participating companies are subject to an annual "desk audit" of requirements by a third party for compliance paperwork, as well as an onsite audit of manufacturing facilities once every 3 years.

Requirements in 2024 include the following.

Safe Chemicals – Ingredients cannot include: 1) chemicals that are carcinogens, mutagens or reproductive or developmental toxicants (CMRs); 2) chemicals that are persistent, bioaccumulative and toxic (PBTs); 3) certain endocrine disrupting chemicals; 4) phosphates; 5) highly toxic preservatives.

The standards prohibit ozone depleting chemicals and greatly restrict volatile organic compound (VOC) emissions, and chemicals that are hazardous air pollutants (HAPs) or that are on EPA's list of Toxic Release Inventory (TRI) chemicals.

Products must have low acute toxicity, as well as pH standards that restrict harsh acid and alkaline chemicals that can harm skin and eyes. Skin and respiratory sensitizers are prohibited.

Performance – Products must achieve a minimum tested level of cleaning effectiveness.

Non-Flammability or Specified Flammability – Labeled products must be non-flammable. Industrial products must provide customer information on spontaneous combustion.

Energy Efficiency – The rating standards encourage product concentrates and cold-water cleaning capabilities to encourage efficiency.

Sustainable Packaging – Sustainable packaging is required, with: 1) at least 25% use of recycled source materials or at least 25% renewable product sources in its primary packaging; 2) prohibition of heavy metals, BPA, and orthophthalates; and 3) material recoverability via recycling or composting.

Find safer products in the search box on Safer Choice Web site

EWG's Guide to Healthy Cleaning
ewg.org/guides/cleaners#.Wnvg2CMrLow

The Environmental Working Group (EWG), active since the 1993, has been a champion of national environmental policy reform as well as giving individual consumers advice about safer products in their home environment. One of its projects is a *Guide to Healthy Cleaning* database of more than 2,500 rated cleaning products judged for their chemical ingredient safety on a "report card" scale of A through F. Ingredients are judged for dangers. Are they: carcinogenic; developmental and reproductive toxins; skin or respiratory irritants; acutely poisonous?

The database also allows review by both the chemical and product names. Entering a specific chemical will allow viewers to find out which products or brands contain it, while entering a specific product name or brand will allow viewers to see all chemicals contained in these products or brands.

EWG's database contains fewer products than the Consumer Products Information Database (below), but the rating allows consumers a quicker way make choices.

GreenSeal Rated Products & Services
certified.greenseal.org/

GreenSeal is a third-party rating program that has existed since 1989. It has rated almost 600 industrial and institutional cleaning products to meet multiple environmental criteria.

The database allows searches of rated products by: 1) product use (e.g., general purpose, carpet cleaners); 2) the manufacturer or main supplier of these products.

Requirements are in most ways similar to those found in EPA's Safer Choice ratings (previously discussed), and include the following.

Safe Chemicals – Ingredients cannot intentionally include: carcinogens; endocrine disruptors; mutagens; neurotoxins; reproductive toxins; systemic toxins; toxic release inventory chemicals; and persistent, bioaccumulative, and toxic chemicals (PBTs). Other specific chemicals or chemical families that cannot be added include: 2-butoxyethanol; alkylphenol ethoxylates; halogenated organic solvents; heavy metals; o-phenylphenol; synthetic musk fragrances; and triclosan.

The standards prohibit ozone depleting chemicals and skin sensitizers, and greatly restrict asthmagens, respiratory sensitizers, and volatile organic compound (VOC) emissions. Products must have low acute toxicity, and hew to pH standards that restrict harsh acid and alkaline chemicals that can harm skin and eyes.

Performance – Products must achieve a minimum tested level of cleaning effectiveness.

Non-Combustible – Products must be non-flammable.

Concentration Requirements – To reduce packaging and energy used in product shipping, most products are required to be supplied in concentrated form.

Sustainable Packaging – Sustainable packaging is required, with: 1) at least 25% use of recycled post-consumer content; or 2) be recyclable; or 3) be a refillable package with an effective take-back program; or 4) be a smaller (source-reduced) package. Heavy metals, BPA, orthophthalates, and chlorinated plastics are prohibited.

A third-party certification must take place to review compliance paperwork (including product tests), as well as to conduct an onsite inspection.

USDA BioPreferred
biopreferred.gov

The U.S. Department of Agriculture's BioPreferred program contained information on over 10,000 products with biobased content in September 2025, along with their certified or estimated percentage of biobased content. These include almost 2,700 cleaning products.

There are a number of product categories besides cleaners, including: building materials; household supplies; office supplies; pest control; plastic substitutes (e.g., film, containers); and even lubricants.

The database can be searched by category and subcategory (for instance, "Household Supplies, followed by General Purpose Household Cleaners), then further narrowed by company name and products made by the company. Specific product information includes: percentage of biobased material; contact; product description and application; and company Web site.

The example of the logo here shows 100% biobased content, though the percentage will differ from product to product. The benchmark of biobased material for voluntary participation in this program is currently a minimum of 25%. If packaging contains biobased content, this will also be printed on the logo.

The database is comprehensive, but hard to manipulate with its large numbers of listings. More detailed information for individual products can be found on the Web site.

Note that the BioPreferred program coordinates with EPA's Safer Choice program. Products may be developed to meet both programs' qualifications, and co-brand with Safer Choice and BioPreferred.

Other Rating Programs That Include Cleaning Products

EWG Verified
ewg.org/ewgverified/

In addition to the Environmental Working Group's *Guide to Healthy Cleaning* rating system that was previously discussed, EWG has started a nascent rating program for cleaning, personal care, and baby products that rigorously screens for harmful chemicals. In September 2025, 126 cleaning products (manufactured by 20 companies) were participating.

The still-small database can be searched by category, and then further narrowed by company name and products made by the company. Specific product information includes a review of chemical ingredients and the company Web site.

Requirements include the following.

Safe Chemicals – Ingredients cannot include: 1) chemicals that are carcinogens, reproductive toxicants, and other chemicals recognized by EWG's Guide to Healthy Cleaning as inherently unsafe; 2) chemicals that are persistent, bioaccumulative and toxic (PBTs); 3) major endocrine disrupting chemicals; 4) phosphates; 5) microplastics; 6) phthalates. There are 70 specific chemicals that are prohibited as ingredients.

Unlike other rating systems, all intentionally-added ingredients must be disclosed, even if considered a trade secret. However, the weight or volume of trade-secret ingredients is still allowed to be kept confidential.

Products must have low acute toxicity, and hew to pH standards that restrict harsh acid and alkaline chemicals that can harm skin and eyes. Liquid hand-dishwashing soaps and hand laundry detergents are particularly restrictive in this regard.

Skin and respiratory sensitizers are strictly limited. Volatile organic compounds (VOCs) emissions are restricted to very low levels.

Aerosol Propellents – Propellants are limited to compressed air, nitrogen and carbon dioxide.

Fragrances, Allergens, and Nanoparticles – Fragrances must not represent more than 1% of the volume of a product. If the product contains fragrances and allergens, they must be on the list of ingredients if added or detected down to very low percentages of total product volume. If nanoparticles are in a product, they also must be labeled.

Performance – Products must disclose results of efficiency tests that have been conducted.

The program has the right to conduct random product testing, audits of production practices, and site visits to ensure products are in compliance with requirements.

Underwriters Laboratory ECOLOGO
spot.ul.com/main-app/products/catalog/

EcoLogo is another third-party rating system that requires multiple environmental criteria to be certified. In September 2025, it listed 251 cleaning products sold in the U.S.

The program includes a number of rated product categories besides cleaners, such as electronics, plastic film and bags, and sanitary paper. The database allows searches of rated products by: brand and product name, and product use (e.g., dish soaps, floor care).

In many respects, the certification requirements for cleaners are similar to EPA's Safer Choice rating system: chemical ingredients that are non-toxic or less toxic, a minimum level of performance, non-flammability, a preference for concentrated products, and sustainable packaging.

Whole Foods Market Eco-Scale
wholefoodsmarket.com/search?text=cleaners

As of January 2025, the health / alternative food chain had banned cleaning products that contain any of 140 chemical ingredients of concern, including phosphates, phthalates, FD&C colors and optical brighteners. Products sold must also be performance tested. By September 2025, the stores sold 141 qualifying products made by 14 companies.

Chemical Ingredient Information

Consumer Products Information Database
whatsinproducts.com

This is an online database that identifies chemical ingredients, and to an extent, their dangers, in 23,000 household products. Product categories include: cleaners; auto-care; hobbies; home maintenance; home office; landscaping; personal care; pesticides; and pet care. Development was begun in 1994, and the project is currently supported by the National Institute of Environmental Health Sciences, part of the U.S. Public Health Service.

The database also allows review by both the chemical and product name. Entering a specific chemical will allow viewers to find out which products or brands contain it, while entering a specific product name or brand will allow viewers to see all chemicals contained in these products and brands.

Pharos
pharosproject.net

The non-profit organization Habitable studies the dangers of chemicals in building materials, and advises governments and the general public on safer products. One of its projects is the Pharos database, which contains information on the attributes of thousands of chemicals used in home products. (Over 100,000 substances are listed.)

The database will often identify if specific chemicals are believed to be carcinogenic, developmental and reproductive toxins, skin or respiratory irritants, and acutely poisonous, as well as the generic types of products where these chemicals are likely to be used.

This is a subscription service, though scholarships are sometimes available for students, classrooms, or other individuals with a financial hardship.

Below is a chart using information from Pharos to decribe dangers from various cleaning and disinfectant products.

TOXIC EFFECTS OF CONVENTIONAL AND ALTERNATIVE CLEANING PRODUCTS

Product Name	Carcinogenic	Gene Mutation	Developmental Toxin	Reproductive Toxin	Endocrine Disruptor	Respiratory Toxin	Organ Toxicant	Aquatic Toxin
Clorox Bleach, Regular								
Sodium hypochlorite						☠	☠	☠
Sodium acrylate							☠	
Clorox Commercial Solutions Clorox Disinfectant Bathroom Cleaner								
Butoxydigylcol			☠		☠		☠	
Dimethyl ethyl benzyl ammonium chlorides (C12-18)						☠		☠
Clorox Commercial Solutions Disinfecting All Purpose Spray								
Ethanolamine			☠		☠	☠		☠
Dimethyl ethyl benzyl ammonium chlorides (C12-18)						☠		☠
Clorox Toilet Bowl Cleaner, Clinging Bleach Gel								
Benzophenone	☠				☠		☠	☠
Sodium hydroxide							☠	☠
Lysol Disinfectant Max Cover Mist								
Ammonium Hydroxide						☠	☠	☠
MIPA-Borate				☠				
Ethanolamine			☠		☠	☠		☠
Ethanol	☠		☠	☠	☠		☠	
Acrylic acid						☠	☠	☠
Lysol Power Toilet Bowl Cleaner								
Hydrochloric acid			☠			☠	☠	☠
Methylparaben					☠			
Phenol	☠	☠		☠	☠			☠
Simple Green d Pro 3 One-Step Germicidal Cleaner & Deodorant								
Dimethyl ethyl benzyl ammonium chlorides (C12-18)						☠		☠
Didecyl dimethyl ammonium chloride					☠	☠	☠	☠
Cinnamal				☠	☠		☠	☠
Note: Products were researched in January 2022. Commercial products frequently change ingredients, so it is possible that these more toxic ingredients will be replaced.								
Safer Disinfectant Ingredients								
Citric acid			☠				☠	
Hydrogen peroxide (low-percentage)	No Major Concerns							
Hypochlorous acid	No Major Concerns							
L-Lactic acid	No Major Concerns							
Peroxyacetic acid	No Major Concerns							
Sodium dichloroisocyanurate							☠	☠
Vinegar	No Major Concerns							

Medium	☠
High	☠
Very High	☠

Chemicals in various cleaning products and their health effects (Pharos database)