

Warning: Household Cleaners May Be Dangerous to Your Health

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The cleaning products you use to wipe down everything from kitchen counters to children's toys may look and smell "clean," but most of them have a cocktail of chemicals that can be dangerous to your health as well as the Planet's. Risks come from individual chemicals as well as cumulative exposure to the questionable compounds in every bottle of conventional bathroom cleaner, furniture polish, and air freshener. Want to go green when you clean? Here are a few things to avoid.

Beware of toxic combinations

When it comes to combining household products, the wrong mix can get you in trouble. The combination of harsh chemicals can create toxic gases that can make you sick or worsen respiratory conditions like asthma. Example? Mixing bleach and ammonia creates chlorine gas, which in turn causes both irritation and inflammation in the lungs. Similarly, blending hydrogen peroxide and vinegar creates peracetic acid, a disinfectant used on everything from hard surfaces to medical supplies but that can be a severe irritant to skin, eyes, and the respiratory system.

Beware of fragrances

Many cleaning products are scented, either to impart a clean aroma or to mask the smell of the chemicals inside. That is problematic from multiple perspectives. Studies have shown that fragrances are among the top five allergens in the world, can trigger asthma attacks as well as headaches and breathing difficulties, and typically contain phthalates that have been linked to health complications such as breast cancer, infertility, and birth defects.

Beware of the 'Big Bad Three'

In the laundry list of cleaning chemicals of concern, three stand out as particular hazards.

- **Quaternary Ammonium (quats)** has been a widely used antimicrobial and disinfectant for nearly a century, but it has been linked to asthma, skin irritation, and birth defects and fertility problems in mice. It is also toxic to aquatic life and, like other disinfectants, contributes to antibiotic resistance that limit treatment options for bacterial infections.
- **2-Butoxyethanol** is found in many window cleaners and gives them their sweet scent. It is linked to sore throats and, at high levels, pulmonary edema along with liver and kidney damage. California now lists it as a hazardous substance.
- **Formaldehyde** is a respiratory irritant that can cause chest pain, shortness of breath, coughing, and nose/throat irritation. It is also a known human carcinogen that masquerades under different names such as formalin, methanol, and oxymethylene on product labels so be sure you read carefully.

Beware of Greenwashing

Package labels claiming that a cleaning product is “green,” “natural” or “biodegradable” give the impression that the product is non-toxic, but don’t be fooled. (Arsenic is natural, too.) In addition to the Big Bad Three listed above, any of the following ingredients are red flags that should signal you to walk away:

- Petrochemical solvents
- Ethoxylates
- Sulfates
- Synthetic fragrance
- Alcohol
- Artificial dyes
- Parabens
- Triclosan

Bottom line? Choose your cleaning products carefully. Your health may depend on it.

Stew Lawrence is the Chief Executive Officer of CleanWell, a Denver-based firm that manufactures botanical-based antibacterial cleaning products.