Toxics in our cleaning products.

Why do chemicals matter?



The vapours will always get you.

There are tens of thousands of chemicals in almost as many products in North America. They're part of our everyday life at home, work, and in our communities.

Cleaning products have chemical ingredients often with complicated names and technical explanations about why they "work". Most people think that they must be "safe" if they're on the market.

Yet many chemicals have not been tested for toxic effects, especially longer-term ones like reproductive harm, cancer, or effects on different body systems and organs. Too many of them can affect our health—now or down the road. And they also can harm our families, our environments, and the people working or living in the spaces where we use them. Studies show that the health of cleaning

workers is affected by the products they use. For example, cleaning workers have the highest rates of work-related asthma (almost twice those doing other jobs) and relatively high injury rates from chemical burns. A 2008 study showed that more than 70% of products that domestic and professional cleaners used were respiratory irritants and sensitizers. Other people can get asthma too, or have an asthma attack or respiratory irritation, if they are nearby when the cleaning product is used, or exposed to it afterwards.

Ingredients in common cleaning products have been linked to short-term (acute) effects such as:

- irritating, itchy or burning eyes;
- skin rashes, allergies and burns;
- dizziness and headaches;
- nose bleeds; and
- sore throat, coughing, wheezing, shortness of breath.

We also know that some ingredients in cleaning products also have longer-term (chronic) effects. Studies show that—depending on the chemical—they can:

- cause new cases of asthma and trigger asthma attacks;
- harm the brain, nervous system, reproductive organs, kidneys and liver;
- cause breathing problems and illnesses;
- disrupt/act like hormones (endocrine disruptors);
- lead to cancer; and
- be linked to cardiovascular (heart) problems.

Cleaning products also can harm aquatic life. That toxic effect to our environment is the result of pouring them down the drain, where they get into water systems.







Disinfectants or anti-microbials are treated as pesticides — so it's understandable they can cause harm. Bleach, quartenary ammonium compounds ("quats" like benzalkonium chloride), and pine oil are common disinfectants.

Fragrances also can cause health effects. They're found in many general cleaning products — that citrus smell for example (often from a chemical called d-limonene) — and specialty ones such as deodorizers, floor waxes and air fresheners. (Studies show that d-limonene combines with natural occurring ozone to produce fine particles and formaldehyde, a carcinogen.) To reduce this harm, more and more people, organizations, and governments are looking to "green" products.

They are asking questions about what chemicals are in a floor stripper or hand washing soap or disinfectant. And they

No smell is a good smell.

Green cleaning products are often color and fragrance free. Traditional cleaning products have added color and fragrances that can cause throat irritation and breathing difficulty. For this reason, green cleaning products do not always have strong scents.

San Francisco Environment Fact Sheet: Module 1 Introduction. General green cleaning are asking "Is it necessary?" to have products with chemicals that are known to cause harm, or that have not been tested for toxicity. Some governments and companies are even banning some chemicals used in cleaning products (e.g., triclosan is banned in Minnesota and not used in the Kaiser Permanente health care system).

What resources are out there to help people understand how cleaning products can affect our health and environments?

A starting point for general effects of cleaning products is <u>http://www.ewg.</u> org/guides/cleaners/content/cleaners_ and_health.

For general information about the hazards of cleaning products used at work and in the home, see:

• <u>Can killing germs be hazardous to your</u> <u>health? Questions about "quats";</u>

Avoid using bleach—it can harm

Like many disinfectants, bleach is often used unnecessarily as a daily cleaner. Bleach is an asthmagen (which means it may cause asthma) and can make existing asthma worse. It also is corrosive and can damage eyes and skin. Bleach can be fatal if swallowed, gives off a potent vapor, and if mixed with ammonia or acids, can create gases that cause lung damage and death.

<u>Healthy cleaning and asthma-safe schools:</u> <u>A how-to guide, 2014</u>

- <u>Canadians for a Safe Learning</u> <u>Environment</u> (lots of resources about hazards and solutions);
- <u>Hazardous substances in frequently</u> <u>used professional cleaning products</u> (a 2014 study);
- <u>Household chemical products? A</u> <u>spotless record?</u> from Quebec's Option Consommateurs;
- *Informed Green Solutions* (an on-line source of a lot of information and training materials about cleaning products);
- <u>Protecting workers who use cleaning</u> <u>chemicals</u>; and
- <u>Safe cleaning products</u> (including "Reproductive harm", "Institutional cleaners" "Household cleaning products: what every woman should know" and "Disinfectant overkill", from Women's Voices for the Earth).



Quats may not be getting as much media attention as triclosan, but a growing number of scientific studies conducted over the past ten years link exposure to quats with adverse respiratory effects, particularly for those who use them professionally..."There's a pretty convincing body of evidence that they are asthmagens," Pechter says of quats.

Can killing germs be hazardous to your health? Questions about "guats", 2014

A lot of work has been done about asthma and cleaning workers, especially in schools. That can be used in other settings. For information about cleaning products and work-related asthma, see:

- <u>Asthma and cleaning products: What</u> <u>workers need to know;</u>
- <u>Asthma related to cleaning agents: a</u> <u>clinical insight</u> (a 2013 study about specific cleaning product ingredients that trigger asthma);
- <u>Cleaning products and work-related</u> <u>asthma;</u>
- <u>Healthy cleaning & asthma-safer schools. A</u> <u>how-to guide</u>, including a list of chemicals in cleaning products known to cause asthma, and their other effects (see Appendix F and Appendix G); and
- <u>Occupational Lung Disease Bulletin -</u> <u>Case studies of work related asthma and</u> <u>disinfectants</u>.

For general information about workrelated asthma, see the <u>fact sheet</u> from the Canadian Centre for Occupational Health and Safety (CCOHS).

What's next? How do we find out what's a hazardous cleaning product?

Yes, chemicals matter — for our health and that of our families, co-workers, communities and environments. The less toxic products are, the better. We want to be sure they really won't cause harm, or are the least toxic possible for the task. To do that, we need to know what's in them. Read about our right-to-know about hazards at work and actions you can take with the information you get, in Section 2, For more, find out how to identify chemicals for substitution in Section 3.

TOOLS SUBSTITUTION

HOW DO YOU FIND SAFER CHEMICALS FOR THE WORKPLACE?



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