

Scientists Find Proof of What We've Suspected

It's not just your imagination. In 2008, scientists reported on the toxic chemicals in house hold cleaning products, laundry detergents and laundry softeners.

You shouldn't have to suffer asthma, eczema or dermatitis just to have a clean house or clean clothes.

First, let's look at that study. Researchers from the University of Washington studied top-selling laundry, House hold cleaning products and air-freshening products and found that they emitted dozens of different chemicals. All of them gave off at least one identified as toxic or hazardous under federal laws!

Among the products tested were a house hold cleaning product, a fabric softener, and a laundry detergent, as well as spray and plug-in air fresheners.

Results showed nearly 100 volatile inorganic compounds (VOCs) emitted from the six products. "Five of the six products emitted one or more carcinogenic 'hazardous air pollutants,' which are considered by the Environmental Protection Agency to have no safe exposure level," said study author Anne Steinemann.

That's not all. A later 2011 study by the same researchers, found that air vented from machines using top-selling scented liquid laundry detergent contained hazardous chemicals, including two classified as carcinogens.

For the study, researchers ran a load of laundry once with no products, and once with a leading brand of scented liquid laundry detergent. They captured the exhaust from the dryer vent with a canister.

An analysis of the captured air showed more than 25 VOCs, including seven hazardous air pollutants. The two carcinogens were acetaldehyde and benzene. "These products can affect not only personal health," said Steinemann, "but also public and environmental health. The chemicals can go into the air, down the drain and into water bodies."

Toxic Chemicals in Household Cleaning Products & Laundry Detergents

Let's look more closely at what manufacturers are putting into household cleaning products & Laundry detergents that may not be good for our health:

1. Sodium lauryl sulfate (SLS) /sodium laureth sulfate (SLES)

Here are top 10 reasons why you should not use *anything* containing it:

- 1. It is a known skin irritant.** When cosmetic companies need to test the healing properties of a lotion, they need to irritate the skin first. What do they use to do this? SLS, of course. If you have dandruff, dermatitis, cancer sores, or other irritated tissues or skin, it could be due to SLS.
- 2. It pollutes our groundwater.** It is toxic to fish and other aquatic animals and has the potential for bio-accumulation (meaning it accumulates in the bodies of the fish.) It also is undetected in many municipal water filters, getting into the tap water that you drink.
- 3. It is actually a pesticide and herbicide.** It is commonly used to kill plants and insects. Makers of SLS recently petitioned to have SLS listed as an approved pesticide for organic farming. The application was denied because of its polluting properties and environmental damage.
- 4. It emits toxic fumes when heated.** Toxic Sodium Oxides and Sulphur Oxides are released when SLS is heated. Makes a hot shower with an SLS shampoo seem not quite as nice...
- 5. It has corrosive properties.** This includes corrosion of the fats and proteins that make up skin and muscle. SLS can be found in garage floor cleaners, engine degreasers, and car wash soaps.
- 6. Long-term permeation of the body's tissues.** A study from the University of Georgia Medicine showed that SLS had the power to permeate the eyes, brain, heart, and liver.
- 7. It's an eye irritant.** It was shown to cause cataracts in adults, and is proven to inhibit the proper formation of eyes in small children.
- 8. Nitrate and other solvent contamination.** Toxic solvents, including carcinogenic nitrates are used in the manufacturing of SLS, traces of which can remain in the product.
- 9. Manufacturing process is highly polluting,** emitting cancer-causing volatile organic compounds, sulphur compounds, and air particulates.
- 10. It helps other chemicals get into your body.** SLS is a penetration enhancer, meaning that its molecules are so small they're able to cross the membranes of your body's cells. Once cells are compromised, they become more vulnerable to other toxic chemicals that may be with the SLS. Benzaldehyde

2.Fragrance: This is one of the main problems, and the focus of the two studies above. Manufacturers combine a number of chemicals to produce a fragrance—so you'll believe your house & clothes are clean because they smell clean .

3.Cleaning agents (surfactants): These are included in the formula to help the product clean better. Examples include chemicals like [quaternium-15](#) (known to release formaldehyde, a known carcinogen), diethanolamine (linked with skin and eye irritation and possibly liver problems), linear alkyl benzene sulphonates or LAS (irritating to skin and eyes and toxic to aquatic life; benzene on its own is a carcinogen), and petroleum distillates (linked to cancer and lung damage).

4.Stabilizers: These chemicals help stabilize the formula, so that it lasts longer on the shelf. Examples include polyalkylene oxide or ethylene oxide, which are linked with eye and lung irritation, and even dermatitis.

5.-Bleach: Bleach may be used separately or may be included in the detergent itself. It's known to irritate skin, eyes, and lungs, and when it mixes with wastewater, it can form toxic organic compounds that have been linked with respiratory issues, liver, and kidney damage.

6. [1,4-dioxane](#): This is a chemical by-product of detergent manufacturing. In independent tests, [Women's Voices for the Earth](#) found 89 parts per million (ppm) and 63 ppm in regular Laundry Detergent.

7. Brighteners: You'll find these in detergents advertising their "brightening" powers. Brighter whites! Brighter colors! What's creating all this brightness? Chemicals that actually remain on the clothes to absorb UV light and help clothes "appear" brighter. We're talking things like naphthotriazolystilbenes (linked with developmental and reproductive effects), benzoxazolyl, diaminostilbene disulfonate, and more. Since these remain on the clothes, they are likely to come into contact with skin.

8. Phosphates & EDTA: Manufacturers use these to make detergents more effective in hard water, and to help prevent dirt from settling back on clothes when they're washing. These chemicals have long been associated with environmental damage, particularly in our streams and waterways. They cause algae blooms that damage ecosystems. Many detergents have eliminated these, but they're often using ethylene diamine tetraacetic acid (EDTA) in its place, which does not readily biodegrade, and has been found to be toxic in animal studies.

Natural Orange Products

At Natural Orange we are proud to inform you that we don't use any of the above mentioned cancer causing chemicals used in common laundry detergent & household products.

Natural Alternatives

We don't have to subject ourselves and our families to all these chemicals for the sake of clean clothes & a clean house.

- **Skip the fabric softener:** with the use of Natural Orange Bio Laundry soap there is no need to use Fabric softeners.
- **Naturally remove stains:** Instead of using chemical-laden stain removers, simply pre-treat your stain with Natural Orange, and water.
- **Frequently clean out your washing machine.** This helps to get rid of any soap scum, bacteria, or other icky things that have collected in your machine over time. Simply add some Natural Orange Bio Laundry Soap into a hot water cycle and run.