

## THE TOXIC DANGER OF TYPICAL LAUNDRY DETERGENT (BY SIXWISE.COM)

We all take great pains to make sure our clothes are clean and fresh, but, ironically, the very detergents that we use to make our clothes "clean" may actually be leaving them worse off than they were before we threw them in the wash. That's because most commercial laundry detergents, the common brands you find at grocery stores, are loaded with potentially toxic chemicals that could harm you, your family and the environment.

Residues of these chemicals are left on your clothes and possibly absorbed by your skin and evaporated into the air where they could be breathed in.

### A Typical Laundry Detergent

If you take a look at a bottle of laundry detergent, you'll find that the ingredients are rather vague. One popular brand listed, for instance:

- Cleaning agents (anionic and nonionic surfactants)
- Buffering agent
- Stabilizer
- Brightening agent
- Fragrance

From this list, it's hard to tell what, exactly, is even in the detergent, so we broke down some of the more common laundry ingredients out there.



**Linear alkyl sodium sulfonates (LAS):** These synthetic surfactants are commonly listed as 'anionic surfactants' on labels, and are one of the most common surfactants in use. During their production process, carcinogenic and reproductive toxins such as benzene are released into the environment. They also biodegrade slowly, making them a hazard in the environment.

**Petroleum distillates (aka naphthas):** These chemicals have been linked to cancer, lung damage, lung inflammation and damage to mucous membranes.

**Phenols:** According to the National Institutes of Health, phenol is toxic and people who are hypersensitive to it could experience death or serious side effects at very low exposures. Plus, it is rapidly absorbed and can cause toxicity throughout the entire body. Typically, death and severe toxicity result from phenol's effects on the central nervous system, heart, blood vessels, lungs and kidneys.

One common surfactant in U.S. laundry detergents is nonyl phenol ethoxylate (this chemical has been banned in Europe, and was found to slowly biodegrade into even more toxic compounds). Studies have found that this surfactant stimulates the growth of breast cancer cells and feminizes male fish.

**Optical brighteners:** These synthetic chemicals convert UV light wavelengths into visible light, which makes laundered clothes appear whiter (although does not actually affect the cleanliness of the clothing). They've been found to be toxic to fish and to cause bacterial mutations. Further, they can cause allergic reactions when exposed to skin that is later exposed to sunlight.

**Phosphates:** These chemicals are used to remove hard-water minerals to make detergents more effective, and to prevent dirt from settling back onto clothes during a wash. A major problem with them is that, when released into the environment, they stimulate the growth of certain marine plants, which contributes to unbalanced ecosystems. Many states have banned or restricted the use of phosphates for this reason, and you may see laundry detergents advertised as "low-phosphate" or "phosphate-free."

**Sodium hypochlorite (household bleach):** This is a chemical precursor to chlorine, which is highly toxic and involved in more household poisonings than any other chemical. When it reacts with organic materials in the environment, carcinogenic and toxic compounds are created than can cause reproductive, endocrine and immune system disorders.

**EDTA (ethylene-diamino-tetra-acetate):** EDTA is a class of compounds used as an alternative to phosphates to reduce mineral hardness in water, prevent bleaching agents from becoming active before they're put in water and as a foaming stabilizer. EDTA does not biodegrade readily and can re-dissolve toxic heavy metals in the environment, allowing them to re-enter the food chain.

**Artificial fragrances:** Many of these can be made from petroleum (see petroleum distillates above), and do not degrade in the environment. They've been linked to various toxic effects on fish and mammals, and often cause allergies and skin and eye irritation.

### Safe Laundry Alternatives

If you want to be sure that your laundry is as non-toxic and safe as possible, seek out a natural brand of laundry detergent. If you're looking for a reputable brand, we highly recommend the [Enviro-Rite line of laundry detergents](#). If you have allergies, asthma or chemical sensitivities, we strongly urge you to consider [Enviro-Rite Gentle Wash](#), a highly effective, ultra-concentrated, ready-to-use detergent solution that leaves behind no residue to irritate sensitive skin, plus is free of phosphates, petroleum solvents, chlorine, perfumes, dyes, animal byproducts, and other toxic compounds.