Safer Products Project
Alternatives for a Healthy Home
A Project of Clean Production Action

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Fact Sheet: Toxic Chemicals in Household Dust

A combination of several of the following chemicals were found in the dust samples taken for the March 2005 report: *Sick of Dust: Chemicals in Common Products A Needless Health Risk in Our Homes.* As you will see, many of these chemicals are found in common household products such as shower curtains, carpets, laundry detergents and electronics. Individually they are known to pose a variety of health risks, especially for children. Collectively, the risk is much higher. Please visit *www.safer-products.org* for a copy of the full report and a list of what you can do to make your home safer.

Chemical Class	Product Use	Health Concerns
Polybrominated diphenyl ethers (Brominate Flame Retardants)	PBDEs are applied to textiles or incorporated into plastics, foams and components of electrical goods to prevent or retard the spread of fire. They are found in polyurethane foam products, foam padding in furniture, textiles, electrical appliances, televisions and computers.	These global contaminants persist for long periods of time in the environment, build up in the body, mimic thyroid hormones, and accumulate in breast milk. US women have highest global levels of these chemicals in breast milk.
Phthalates	80–90% of Phthalates are used in flexible PVC (vinyl) products such as wall coverings, flooring, furniture, shower curtains, clothing, raincoats, shoes, and toys. They are also used to make paint, medical equipment, pesticides, and personal care products such as perfume, nail polish, hairspray.	These global contaminants build up in the body and disrupt the reproductive system in animal studies, particularly in male offspring. They are found in higher concentrations in infertile men and contribute to asthma and respiratory problems in children.
Organotin Compounds	Organotins are used primarily as heat and light stabilizers in PVC. They are found in PVC water pipes, PVC food packing materials, glass coatings, polyurethane foams and many other consumer products.	Very poisonous even in small amounts, these can disrupt the hormone and reproductive system and are toxic to the immune system. Early life exposure in animals can disrupt brain development.
Alkylphenols	Alkylphenols are used primarily as raw materials for the manufacture of alkylphenol ethoxylates. Alkylphenol ethoxylates are used as non-ionic surfactants, emulsifiers, lubricants or anti-oxidants in laundry detergents, textiles, leather, paints, disinfecting cleaners, all-purpose cleaners, spot removers, hair-coloring, cosmetics, adhesives, some plastics and pesticides. Nonylphenol is used as a spermicide.	These chemicals are widely recognized to mimic natural estrogen hormones leading to altered sexual development in some organisms. They can affect sperm production in mammals and may disrupt the human immune system.
Perfluorinated Organics (PFOA/PFOS)	PFOA is used to make Teflon, Goretex, and other oil-, water- and stain-resistant materials that are used in many common items, including nonstick frying pans, utensils, stove hoods, stainproofed carpets, furniture and clothes. PFOS is thought to be the main, final degradation product of many of the perfluorinated chemicals released into the environment.	These chemicals are pervasive in the blood of the general US population and are now global contaminants. They are potentially carcinogenic and caused damage to organ function and sexual development in lab animals. It takes over four years to excrete half the amount of this chemical from organs and human tissue, therefore continuous exposure adds high concern.
Pesticides	Pesticides are applied in and around homes for controlling infestations of various insects. They are applied to carpets, pre- and post-sale, to prevent or retard infestations of insects and dust mites.	Pesticides are global contaminants that can persist for long periods of time in the environment. They can have adverse effects on the hormone system and be carcinogenic.