



# Safer Products Project

## Alternatives for a Healthy Home

A Project  
of Clean  
Production  
Action

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## Sick of Dust: Executive Summary

The first U.S. study to test household dust for a new and wide variety of chemicals found disturbing evidence of toxic chemicals in ordinary homes across the country. The study documents a range of hazardous chemicals found in household dust in 70 homes in seven states. All the chemicals found are toxic and harmful to the immune and reproductive systems in animal tests. The chemicals are used in mass quantities in electronic products, cosmetics, vinyl flooring and upholstery and other everyday products that many people wrongfully assume are safe. Babies and young children are particularly at risk from exposure to these chemicals.

This study shows that the US federal regulatory system has failed in protecting people from exposure to hazardous chemicals including toxic flame retardants, pesticides, and hormone disrupting chemicals.

Exposure to these chemicals is unnecessary and avoidable. Europe is overhauling chemical legislation to protect public health and promote the production of safer chemicals and products. Some US states across the country are working to pass protective legislation for safer alternatives. Progressive companies such as Dell, IKEA, Herman Miller and Shaw Carpets have achieved success in finding safer chemicals for their product lines. But to date, the U.S. federal government has taken little action and the majority of US companies have no policies in place to favor safer chemicals and production methods.

This report documents the presence of hazardous chemicals in household dust, the health risks associated with the chemicals and the products they are found in. The report also ranks brand name companies and retailers on their use of hazardous chemicals and reveals the fundamental changes that are needed to bring American chemical regulation up to a level that will protect our basic health and that of future generations.

**Hazardous chemicals are regularly used as additives in consumer goods, yet our current system of regulation allows them to continue to be brought into our homes in products.**



### Key Findings

1. All composite samples were contaminated by all six of the chemical classes we investigated: phthalates, pesticides, alkylphenols, brominated flame retardants, organotins and perfluorinated compounds. This is the first U.S. study to document levels of organotins and perfluorinated compounds in household dust.
2. Toxic chemicals are brought into our homes through ordinary consumer products including vinyl flooring, foam cushions, pest control products, fabrics, and cookware. Most of the chemicals found in this study have also been detected in breast milk as well as blood and/or urine.

3. Hazardous chemicals in house dust adds to our ongoing exposure to synthetic chemical contaminants in water, air and food. Each composite sample contained hormone disrupting chemicals together with chemicals associated with allergies, impaired nervous and immune systems, cancer and reproductive and developmental effects.
4. Some companies have demonstrated that the transition to safer chemicals and material use is feasible and profitable. The report showcases four companies that searched for and found safer chemicals for

their product lines. A transition to safe chemical use should be a priority across all product sectors.

**This study provides solid evidence that the federal government, US states, and US industry must take immediate action to replace harmful chemicals with safe substitutes.**

The study participants cannot be blamed for contaminating their homes with these toxic chemicals. Rather, blame must be placed squarely on the shoulders of the U.S. regulatory system, which allows dangerous chemicals to be put into consumer products, does not require even minimal safety testing for the majority of chemicals currently in use, and has virtually no prohibitions in place to reduce exposure to chemicals known to cause harm. The U.S. chemical industry must also take responsibility

for failing to replace chemicals of known toxicity with safer substitutes. Manufacturers of cosmetics, furniture, computers, flooring and other products must also take responsibility to ensure that their products are safe and free of harmful chemicals.

The American people deserve to be safe in our own homes, and should be able to purchase products without unwittingly exposing ourselves and our children to substances that can cause cancer and disrupt development. This study provides solid evidence that the federal government, US states, and US industry must take immediate action to replace harmful chemicals with safe substitutes.

### **Recommended Actions**

1. The federal government must phase out the most hazardous chemicals from production and use. Comprehensive data on chemicals used in commerce should be required and toxicity information should be used as a basis to replace the most hazardous chemicals with safer substitutes. These include chemicals linked to cancer, hormone disruption, developmental and reproductive harm.
2. States should take strong action now to phase out chemicals with known or likely hazards. A number of states are currently considering bans on the toxic flame retardants PBDEs, which have been found in house dust as well as breast milk. States should also support businesses using safer processes and chemicals.
3. The chemical industry should supply environmental and human health data for untested chemicals currently in production and immediately phase out the production of those chemicals linked to cancer, hormone disruption, developmental or reproductive harm. The chemical industry should begin an aggressive adoption of Green Chemistry Principles.
4. Retailers and product manufacturers should establish substitution plans for all high risk chemicals, placing a priority on chemicals detected in this study. Design strategies exist to help companies use safe chemicals.