



"Green" cleaners: Harmful or helpful?

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April 14, 2010

Aisle 15: Cleaning products. Deep in the heart of the grocery store, just past the pet food but before the frozen goods, are shelves full of products the colors of a rainbow. Red floor scrub, purple all-purpose spray, blue window wash. Somewhere, in the middle of this kaleidoscope of containers hides a plain, white bottle, quietly describing its usefulness and decorated with only a small green leaf and a ladybug. "Green" cleaners are the newest products targeting the "organically conscious." However, the lack of reliable certification means that not all products on the market are created equal, and all claims cannot be trusted. How do you choose a safe, truly green cleaning product?

The majority of cleaners found in mainstream stores, from grocery chains to hardware stores, are not green, but "greenwashed." Many products make vague claims of effectiveness and of environmental safety. Some lack proof of their chemical safety, while still others make irrelevant claims, like promising to be free of ingredients that have long been illegal on the market. These are a few of the "sins of greenwashing," says Scot Case, executive director of the EcoLogo regulatory program, based in Philadelphia.

In its annual report, EcoLogo surveyed more than 2,000 household products, and

reported that 98 percent had committed at least one "sin of greenwashing."

These marketing tactics try to sell consumers a product that isn't as safe as companies claim. "Everyone has their own definition of what green is," Case says.

Take, for example, the Nature's Source products from SC Johnson, which are advertised to be made from "99 percent naturally derived ingredients." Buyer beware, says Case: "'Naturally derived' is hilarious, it's meaningless. Cobra poison is 100 percent natural. Hemlock, which killed Socrates, is natural. Just because it's 'naturally derived' doesn't mean it's safe, or even environmentally favored."

The best way to know what you're buying is to read the full ingredients. However, full disclosure isn't yet common, and vague phrases often hide important information. "'Dyes, Fragrances and Surfactants' provides no useful information," says Case. "Dyes have usefulness in institutional situations, but consumers have been misled that clean has a smell.

"There are safer dyes and safer fragrances," he says, but few companies list their fragrance ingredients.

Without a list of ingredients, there is a fall back: chemical regulation. Every company is required to have, on file and available, Material Safety Data Sheets. These include ingredients, dangers and first aid procedures. However, this is not a good solution, as the sheets are written primarily for industrial and scientific use, and for emergency situations. And in the documentation, amounts under 1 percent of the final concentration don't need to be specifically reported. Unfortunately, many dangerous chemicals, including carcinogens, can be very harmful at these low concentrations that aren't listed.

Many customers of green cleaners are parents who are concerned about what chemicals are unknowingly introduced into their homes. Among them is U.S. Sen. Al Franken (D-Minn.), who recently introduced the "Household Product Labeling Act of 2009."

If passed into law, the bill would require that the majority of household products, including cleaners, deodorizers and laundry soap, include a list of ingredients including all dyes, fragrances and preservatives. If Congress approves the bill and the president signs it, the Consumer Product Safety Commission would have to put it into effect within a year of its passage.

To Sen. Franken, the full disclosure of chemical ingredients is a "common-sense measure to help parents keep their kids safe and healthy." This legislation is strongly supported, not only by the makers of green cleaning products, such as Seventh Generation and Method Cleaners, but also by those who use cleaners daily, including the Service Employees International Union (SEIU) and the Maid Brigade.

U.S. Rep. Steve Israel (D-N.Y.), who proposed the Act to the House of Representatives, announced, "My bill will require companies to come clean and finally provide the information necessary to make smart decisions about cleaning products."

In the recent past, cleaners weren't flagged as toxic or green, but times have changed. Not only have we become more aware of our surroundings, we aren't living in the same environments as our grandparents. As buildings have become better insulated and sealed, daily exposure to cleaning residue has increased. This issue was explored in the *Journal of Health and Social Behavior* by Phil Brown and coworkers at Brown University, University of California-Berkeley, and at the Silent Spring Institute.

Funded by National Institute of Environmental Health Sciences and the National Science Foundation, the study showed that during a person's lifetime, the total exposure to common cleaning chemicals could be as dangerous as exposure to an industrial chemical leak or an environmental disaster.

The question "Will this cause cancer?" can be difficult to answer. The Organic Consumer Association, a watchdog group that worked to regulate the "organic" label on foods, asked this question of green soaps. The OCA tested for a known carcinogenic solvent, 1,4-dioxane. Every dish soap tested positive, with contents up to 95 parts per million. The Environmental Protection Agency has found concentrations below 50 parts per million to be safe in the short term, but prolonged exposure can cause eczema as well as respiratory issues. Above this level, repeated skin contact can lead to liver and kidney damage.

Sometimes, as Case explains, marketing re-spins dangerous ingredients as something wonderful. For instance, he says, some citrus cleaners will advertise their products "with the power of d-Limonene." D-Limonene itself is classified as a possible carcinogen, but when it's touted as the effective element in a cleaner, it isn't questioned. Nonetheless, it is, according to the World Health Organization's International Agency for Research on Cancer, as dangerous as bisphenol-A, the chemical found in plastic water bottles that led to mass recalls and product reformulations.

While alarming, it is possible to avoid carcinogens and other dangerous chemicals in cleaners. Third-party certifications are showing up on product labels to help guide the consumer. For example, the EPA's Design for the Environment program strictly controls the components allowed, such as imposing a maximum allowable percentage of d-Limonene. EcoLogo and GreenSeal are also becoming common certifications, as they promote full transparency for labeled products. *Good Housekeeping* recently introduced a new Green Seal of Approval. While very detailed in product testing, *Good Housekeeping* requires companies to advertise in their magazine, and the standard is less transparent to consumers.

The certification seal is granted only after rigorous testing. Certifying agencies test for carcinogens, skin irritants, air pollutants and heavy metals, and examine the packaging to determine if it can be recycled. Per product, certification can run anywhere from \$5,000 to more than \$30,000, not counting yearly recertification fees, to ensure companies have not changed formulations or manufacturing practices. Because of the cost, these certifications are available primarily on national brands of household products.

Some of the larger product lines have begun to introduce their own certifications, like SC Johnson's GreenList. This is an intentional move by companies that want to distinguish the certification logos on their products from those on their competitors', according to Case. But these certifications can also be meaningless, because companies are simply certifying their own products, making comparisons across brands difficult, if not impossible.

Green products have been available in the industrial marketplace for more than a decade; however in the household market, only a number of small companies marketed products, which are available mainly at health food stores and groceries. Method Cleaners, Seventh Generation and Simple Green have managed to claim an increasing market share. As of 2007, Method Cleaners alone held 2 percent of the \$15 billion dollar cleaning industry. Now, more companies, including Chlorox and SC Johnson, are offering their "green" cleaners in more stores.

Common sense is required while shopping in the green marketplace. Joe McCutcheon, owner of Triangle Green Cleaners, said a salesperson recently offered him samples of environmentally friendly, newly GreenSeal-certified cleaners. When he received the cleaners, he realized they were brightly colored and the bottle was covered in chemical warnings. The added dyes were a warning flag for him; he asks, "What plant is pink that you put in here to make this product?"

There are also times when it is impossible to find a certified green product. There are no regulations regarding powdered scrubs, for instance, but McCutcheon recommends traditional products like Bon-Ami. He

explains there's little fragrance, and the ingredients listed are little more than chalk and sand. His company also goes through gallons of vinegar every day. While he strives to use only certified green products, vinegar is an exception. "It's not Green Seal certified," says McCutcheon, "but it's vinegar. You put it in your salad dressings, you can eat it."

In the case of disinfectants, the Environmental Protection Agency regulates its labeling, to insure that they do disinfect. At this time, the E.P.A. prohibits any disinfectant from displaying or indicating it has a green certification. In the future, the Design for the Environment certification may be expanded to include disinfectants, but has not been made public. Instead, McCutcheon says many parents choose not to use antimicrobial disinfectants around their children, to avoid any possible dangers.

Cataloging each and every component of cleaners is the ultimate goal of the Household Products Labeling Act. But until it or a similar requirement, is law, the consumer is left to do most fact-checking. "Having someone sanction it, like Green Seal, is good, but you still gotta do your own research," says McCutcheon. His recommendation is to stick with traditional products, limit disinfectant use and rely on elbow grease, not strong cleaners, to get a clean house.