
Frequently Asked Questions: Cleaning for Health Products and Practices for a Safer Indoor Environment

What does “green” mean?

The federal government has defined “green” products, more accurately called “*environmentally preferable*” products, as products and services that “have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.”

How do the terms “green” and “environmentally preferable” differ?

“Green” is a non-regulated, generic term that the general public has adopted to mean “safer for the environment.” Because the characteristics that define the term “green” are not regulated, many products with the word “green” in their title are not environmentally preferable. Many consumers mistakenly believe that if the word “green” appears in the name, then the product is safer for humans and the environment.

What is environmentally preferable cleaning?

Environmentally preferable cleaning is an interior finish maintenance program designed to reduce indoor air pollution by using less-toxic cleaning chemicals and equipment that is more effective at capturing particulate matter.

How does environmentally preferable cleaning work?

Environmentally preferable cleaning works in two ways. First, it relies on cleaning chemicals that do not contain many of the highly toxic constituents that are common in cleaning products. Second, it employs advanced technology, such as microfiber dust mops, that is more effective at gathering dirt, soil, and other particulate matter. By utilizing safer cleaning chemicals and modern equipment, “green” cleaning releases fewer harmful particulates and toxic substances into the environment.

Why is equipment important to a cleaning program?

High-performance equipment is an important component of environmentally preferable cleaning because these tools—such as HEPPA filtration vacuum cleaners, microfiber mops and cloths, multilevel walk-off mats, and two-chamber mop buckets—are designed to prevent dirt and soil from contaminating surfaces, thus reducing the amount of chemicals required for cleaning.

Can conventional cleaning products really be dangerous?

One out of three cleaning products contains ingredients known to cause human health or environmental problems.¹ A study conducted by the Janitorial Products Pollution Prevention Project found that the average janitor uses 48 pounds of hazardous chemicals per year.² Some of the ingredients in conventional cleaning products can cause cancer, mutate genetic material, sensitize the skin, and cause chemical burns. The effects of these chemicals can be serious. A review of workers’ compensation data from Washington state found that 6 out of 100 janitors are injured by chemicals every year; the most common injuries are serious burns to the eyes or skin.³

Another major concern is that many cleaning chemicals contain respiratory irritants. Even short-term exposure to cleaning agents can trigger asthmatic attacks.⁴ Janitorial staff are even more at risk than other building occupants. A study published in the *American Journal of Industrial Medicine* found that janitorial workers and firefighters experience the highest rates of occupational asthma.⁵

All building occupants are affected by the indoor environmental quality (IEQ) of a facility. Research tells us that improving IEQ will improve performance and reduce absenteeism and building related health problems.⁶ Cleaning chemicals and processes affect the quality of the indoor air.

Are children especially at risk from cleaning chemicals?

Exposure to cleaning chemicals is a particular concern for children because they are more vulnerable to toxic exposure than adults. Children breathe more frequently and more deeply than adults, which makes them more susceptible to airborne toxins.⁷ Children also have greater physical contact with their environment because they are more likely to sit on floors, engage in repeated hand-to-mouth activities, and place their heads on surfaces. The effects of toxic chemicals can have a long-term impact on children's developing bodies.^{8,9}

The relationships between chemical exposure and childhood learning disabilities, neurological problems, and cancer are currently being researched. However, it could be decades before we understand the reasons for the exponential increase in childhood neurological disorders.¹⁰

How do we know which cleaning products are really environmentally preferable?

Environmentally preferable chemicals should be third-party certified to verify that they have minimal impacts on human health and the environment.

Nonprofit, third-party certification organizations such as Green Seal and Environmental Choice evaluate products to ensure that they comply with a set of efficacy, environmental, and human health criteria. These organizations rely on stakeholder groups that represent industry, human health, and environmental concerns to develop the standards.

How do we know if a product is third-party certified?

Environmentally preferable cleaning chemicals that have been third-party certified usually carry the mark or label of the certifying organization.

Do the environmentally preferable products work as well as the products we have been using?

The third-party certification process also verifies performance of the products. They must work as well as or better than traditional cleaning products that perform the same task.

For more information about the performance of environmentally certified products, contact the Toxics Use Reduction Institute's Simple Solutions Laboratory at the University of Massachusetts Lowell. See the following website: <http://www.turi.org/content/content/view/full/2231/>.

Are environmentally preferable products used differently?

Using the new generation of environmentally preferable products can require changes in cleaning practices or methods. The Green Seal certification process requires manufacturers to provide training in the use of the new chemicals. Request this training from your vendor.

How much do environmentally preferable products cost? Are they more expensive than conventional products?

Prices for environmentally preferable products are similar to those of conventional products. Some facilities report that they actually save money by switching to environmentally preferable products.

How do environmentally preferable products save money?

Environmentally preferable products are generally sold as a concentrate that can be used at different dilutions for different tasks. For instance, one chemical can be used as an all-purpose, bathroom, glass, neutral floor, and carpet cleaner; a dilution station automatically mixes the correct amount of the product for each use. In some cases, facilities save money because they purchase fewer products.

How do we start an environmentally preferable cleaning program?

INFORM has developed a suite of resources to assist you every step of the way. Our fact sheets are available for free through our website: http://informinc.org/cfh_OGS.php.

For related information about green cleaning, see the following INFORM fact sheets: Cleaning for Health: Best Practices; Ingredients Checklist; Walk-Through Inspection Check List; Cleaning for School Health: Asthmagens in Institutional Cleaning Products; and Environmentally Preferable Cleaning Products: Sample Specifications.

Sources

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² Janitorial Products Pollution Prevention Project, "Southern California Janitorial Chemicals Safety Project," January 2002, available at <http://www.wrppn.org/Janitorial/socalresults.cfm>.

³ Janitorial Products Pollution Prevention Project, *How to Select and Use Safe Janitorial Chemicals*, Project Completion Report, December 1999, p. viii, available at <http://www.p2pays.org/ref/21/20377.pdf>.

⁴ C. E. Mapp, V. Pozzato, V. Pavoni, and G. Gritti, "Severe Asthma and ARDS Triggered by Acute Short-Term Exposure to Commonly Used Cleaning Detergents," *European Respiratory Journal* 16, 3 (September 2000): 570–72.

⁵ F. Reinisch, R. J. Harrison, S. Cussler, et al., "Physician Reports of Work-Related Asthma in California, 1993–1996," *American Journal of Industrial Medicine* 39, 1 (January 2001): 72–83.

⁶ P. W. Wargocki, D. P. Wyon, and P. O. Fanger, "Pollution Source Control and Ventilation Improve Health, Comfort and Productivity," in *Proceedings of the Cold Climate HVAC Conference 2000*, pp. 445–50, Sapporo, Japan, November 1–3, 2000; and M. J. Mendell, W. J. Fisk, M. Petersen, et al., "Indoor Particles and Symptoms among Office Workers: Results from a Double-Blind Cross-Over Study," *Epidemiology* 13, 3 (2002): 296–304.

⁷ US Environmental Protection Agency, "Children's Health: Childhood Asthma Is Increasing," June 10, 2004.

⁸ P. J. Landrigan, "Children as a Vulnerable Population," *International Journal of Occupation, Medicine, and Environmental Health* 17, 1 (2004): 175–77.

⁹ L. R. Goldman, "Children—Unique and Vulnerable: Environmental Risks Facing Children and Recommendations for Response," *Environmental Health Perspectives* 103, Supplement 6 (September 1995): 13–18.

¹⁰ Michael Szpir, "New Thinking on Neurodevelopment," *Environmental Health Perspectives* 12, 2 (February 2006): A101–7.