

Cleaning for Health: Best Practices

Facilities can avoid using the many cleaning products that contain highly toxic chemicals. By using safer cleaning chemicals and modern equipment, environmentally preferable (also referred to as “green”) cleaning releases fewer toxic substances into the environment while capturing greater amounts of particulates.

INFORM’s “Best Cleaning Practices Guidelines” outlines those practices. INFORM offers in-depth information about developing and implementing a “green” cleaning program in the publications listed at the end of this fact sheet.

Design for Clean

The most successful building maintenance programs begin long before the building is constructed. When planning new construction, it is helpful to consider the total cost of owning and maintaining products and finishes, including the potential health risks. Some interior finishes have relatively low first costs but are expensive to maintain.

Adopt a Cleaning Products Protocol as Part of Your Hazard Communications Plan

Adopt a protocol for handling any cleaning product that poses a health risk. You can refer to INFORM’s fact sheet, “Ingredients Checklist” and the product manufacturer’s material safety data sheets for disclosure of chemicals that are known to have adverse health effects. Use this information to determine when personal protective equipment should be used.

Substitute Products

For each product in use, determine if there is a “less-toxic” substitution that will perform the same task. Look for products that meet third-party criteria for “green” chemistry or human health effects, or find products that meet strict specification guidelines. For more information about products, see the resource section at the end of this fact sheet.

Use the Most Modern Equipment

Modern, high-performance equipment is an important component of environmentally preferable cleaning because these tools are designed to prevent dirt and soil from

contaminating surfaces, thus reducing the amount of chemicals required for cleaning.

- Replace dust mops and cotton cloths with microfiber mops and cloths. Microfiber captures dust and harmful microbes without the use of spray products or other chemicals. Microfiber cloths should be color coded for use with different tasks.
- In existing buildings, place 15 to 20 feet of multi-level scraper mats on the outside and inside of entryways to minimize the amount of dirt and grit that is tracked into the building.
- Use advanced technology mop buckets that keep dirt from being re-deposited by the mop to reduce the redistribution of dirt during cleaning. Purchase vacuum cleaners equipped with high-performance filters, and vacuum before mopping.

Limit the Use of Disinfectants

The overuse of disinfectants has become a serious human health concern. Disinfectants are by nature extremely toxic, so their use must be carefully managed. Carefully consider what areas in your facility must be disinfected.

- Determine where to use disinfectants by dividing your facility into risk areas. Identify those areas that need the highest level of disinfecting, such as nurses’ offices, and separate them from areas that can simply be thoroughly cleaned or that need to be sanitized (food service areas). Identify the organisms you need to eliminate, such as those in blood and vomit or general pathogens.
- *Clean before disinfecting*, unless the product specifically states otherwise, because biocides are less effective or ineffective on dirty surfaces. Always remove visible contaminants before using any “one step” disinfectant.
- Be sure to follow the instructions carefully, and comply with the recommended “dwell” time or time it takes for the biocide to effectively eliminate the targeted organisms. The dwell time is generally 10 minutes. Read your product’s label and comply with the instructions.
- Use the least toxic antimicrobials to disinfect or sanitize.

Manage Flooring Maintenance, Including Vinyl Composite Tile

Floor-care products used to maintain floor finishes are some of the most toxic products used in building maintenance. Managing floor finishes to minimize the frequency of applying, buffing/burnishing, and removing these coatings makes environmental and economical sense. Choose floor maintenance products that have been third-party certified by Green Seal or Environmental Choice.

Facilities can take several steps to minimize the use of these products:

1. Reduce the amount of tracked-in dirt and particulates by utilizing multi-level walk-off mats at entrances, vacuuming, and wet-mopping.
2. Carefully choose a floor maintenance system for durability and compatibility of products.
3. Use a low-or no-VOC (volatile organic compound) third-party certified stripper, followed by a neutralizing rinse.
4. Choose the timing of floor stripping carefully so that the fewest number of building occupants are likely to be affected.
5. Avoid high-gloss finishes that contain zinc, an environmental toxin.
6. Follow the protocol for handling hazardous materials when using floor strippers, including the use of personal protective equipment.
7. Use only cold water when stripping; hot water makes the active ingredient airborne instead of allowing it to break down the polymer finish.

Manage Carpet Cleaning

Carpeting presents particular issues. Carpet can absorb particles that are tracked into the building and dust from any source, including buffing floors, pet dander, and cleaning products used to maintain the carpet. Carefully manage the maintenance of carpeting to reduce the health impacts.

1. Clean up spills promptly, starting with clear, cold water and blotting cloths.
2. Specify the least toxic products available for carpet maintenance, avoiding toxic ingredients such as tributyl tin and formaldehyde. (See INFORM's "Hazardous Ingredients" fact sheet.)
3. Deep clean as recommended by the manufacturer, using a product that is third-party certified as environmentally preferable.
4. If carpets become saturated with water, clean and dry them immediately to discourage the growth of mold and mildew. Fungi are commonly associated

with asthma and other health problems. A dehumidifier can speed the drying time for carpets. Remedying a mold situation requires special training or professional assistance.

5. Replace bonnet cleaning equipment with cylindrical brush type. Bonnet cleaners have a limited capacity for soil removal and can leave detergent in the pile, causing rapid resoiling. They can also distort and damage carpet fibers.

For information about carpet care, visit the Carpet and Rug Institute website (see the address in the resources section at the end of this fact sheet).

Keep Current on New Products

Environmentally preferable purchasing and cleaning is a quickly evolving field. New products are coming onto the market in increasing numbers. Ask your vendor to keep you up to date with information about the newest technology and studies demonstrating the performance of new products and equipment.

INFORM Resources

INFORM's Cleaning for Health website includes links to all of our "green" cleaning fact sheets.

<http://informinc.org>

[Cleaning for Health](#)

INFORM's extensive research report about the cleaning products and practices that can create a safer indoor environment

[Implementing Environmentally Preferable Cleaning Practices](#)

The eight essential steps to designing and implementing an environmentally preferable cleaning program

[Cleaning Products and Practices Evaluation Checklist](#)

An easy-to-use, information-gathering tool designed to help facilities take stock of the products and practices currently being used to maintain their building interiors

[Ingredients Checklist](#)

A quick guide to which industrial cleaning chemicals to avoid and why they should be avoided

[Asthmagens in Institutional Cleaning Products](#)

A guide about occupational asthma, institutional cleaning products, and how to avoid those products that contain respiratory irritants and asthmagens

[Respiratory Hazards and Restroom Deodorant Blocks](#)

What you need to know about replacing toxic restroom deodorizers with PBT-free air freshening urinal blocks

Certified Products

- Environmental Choice:
<http://www.environmentalchoice.com>
- Green Seal: <http://www.greenseal.org>

Floor Care

- Carpet and Rug Institute: <http://www.carpet-rug.com/>

General information

- US EPA's Office of the Federal Environmental Executive:
<http://www.ofee.gov/gp/greenjanitorial.html>
- The Ashkin Group: www.ashkingroup.com
- GreenBiz:
<http://www.greenbiz.com/s?filter0=resources+cleaning+tools&filter1=1>
- GreenBlue: <http://www.greenblue.org>

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