

STRATEGIC INSIGHTS

WHY GREEN CLEANING AND PRODUCTS

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STRATEGIC RESULTS



WHY GREEN CLEANING AND PRODUCTS

INTRODUCTION:

Green and Environmentally Preferable . Though there is no standardized definition of the term *green*, generally, *green* refers to the adoption of environmental management practices and products intended to minimize the damaging impact on the environment from resource depletion and pollution. Green products are “environmentally preferable” products and services that reduce pollution and have less effect on human health and the environment.

EPA’s Environmentally Preferable Purchasing Program (EPP) Because the federal government spends approximately 230 billion USD annually on a large quantity and wide variety of products and services, it leaves a large environmental footprint. However, by purchasing “environmentally preferable” products and services, the federal government can utilize its spending power to increase national demand for greener products as well as help meet environmental goals through markets rather than mandates. The EPA created the EPP in 1993 to help federal agencies comply with green purchasing laws, regulations, and executive orders. Most recently, these requirements have **Executive Order 13514**, which orders federal agencies to use sustainable practices when buying products and services.

WHY CHOOSE GREEN CLEANING AND PAPER PRODUCTS?

Impact of Federal Purchasing

- As the single largest consumer of goods and services within the United States, with total spending estimated at \$350 billion for goods and services each year, the U.S. federal government’s purchasing power exerts a tremendous influence on which products and services are available in the national marketplace. The EPP works to ensure that the federal government’s buying power works to increase availability of environmentally preferable products, which in turn minimizes environmental impacts.

Environmental and Health Concerns

- **Human Health:** Traditional cleaning products may contain chemicals associated with eye, skin, or respiratory irritation. The concentrated forms of some commercial cleaning products are classified as hazardous, creating potential handling, storage, and disposal issues for users. In addition to the 2.8



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million janitors employed by the cleaning industry, all building occupants are potentially exposed to the volatile components of cleaning products.

- **Wildlife:** Ingredients such as alkylphenol ethoxylates, a common surfactant ingredient in cleaners, have been shown to function as “endocrine disrupters,” causing adverse reproductive effects of the types seen in wildlife exposed to polluted waters. Additionally, ingredients containing phosphorus or nitrogen can contribute to nutrient-loading in water bodies, leading to adverse effects on water quality.
- **Air:** Volatile organic compounds (VOC) in cleaning products can affect indoor air quality and also contribute to smog formation in outdoor air.

Benefits of Buying Green

- **Reduced waste and energy:** Buying cleaners with reusable, reduced, or recyclable packaging and appropriate handling safeguards reduces packaging waste and transportation energy.
- **Reduced costs:** Buying less hazardous cleaners may reduce costs when it comes time to properly dispose of leftover cleaners.
- **Environment and health benefits:** Choosing green products can minimize harmful impacts to custodial workers and building occupants, improve indoor air quality, and reduce water and ambient air pollution while also ensuring the effectiveness of cleaning in removing biological and other contaminants.

How to Choose Green Products

When purchasing cleaning products, purchasers should examine as many relevant product attributes as possible, recognizing that tradeoffs are inevitable. For example, one product may be made with renewable resources, while another product may have a lower VOC content. The overall best value takes into account performance, price, availability, regulatory requirements, and environmental impact.

Additionally, purchasers should be especially careful in interpreting vague or generic claims such as “environmentally friendly,” or “eco-safe.” Purchasers should ask vendors and manufacturers offering green cleaning products to clearly and specifically define their green claims. Guidance on interpreting environmental marketing claims is available from the Federal Trade Commission.

Product Usage and Attributes to Look For

Cleaning

- Minimizes exposure to potentially harmful chemicals such as;



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- Added dyes, except when added for safety purposes
- Added fragrances, skin irritants or other corrosive or strongly irritating substances
- Substances classified as known or likely human carcinogens or reproductive toxicants
- Ozone-depleting compounds
- Regulated hazardous materials
- Use of renewable resources (biobased solvents from citrus, seed, vegetable, and pine oils)
- Reduced or no volatile organic compounds (VOCs)
- Biodegradable by standard methods and definitions (“ready biodegradability” OECD)
- Low toxicity in aquatic species such as fish or aquatic invertebrates, e.g. LC50 or EC50 > 10 mg/L (chronic) reported on MSDS or other product literature
- Low flammability (flash point > 200 degrees F.)
- Designed for use in cold water to conserve energy
- Limit use of disinfectants to areas where people are most likely to come into contact with contaminated surfaces (doorknobs, bathroom fixtures)
- Conduct training on proper use of products

Product Packaging and Shipping

- Concentrated formulas with appropriate handling safeguards.
- Efficient packaging (e.g., light weight, reduced volume)
- Recyclable packaging
- Recycled-content packaging
- Refillable bottles
- Pump sprays instead of aerosols
- Packaging and dilution systems designed to reduce exposure to the product
- Products shipped in bulk
- Clear labeling and information on use and disposal.

Purchasing Tools

EPA’s EPP has developed Web-based tools to help purchasers consider the environment, along with price and performance, when buying a product or service.

The **EPP Database** is a tool to facilitate the purchase of products and services with reduced environmental impacts. The database contains information on mandatory purchase programs contained in FAR Part 23 (Energy Star, CPG, and Biopreferred Products) as well as environmental products available through supply programs such as Ability One and the U.S. General Services Administration.

<http://yosemite1.epa.gov/oppt/epstand2.nsf>



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A. Cleaning Product Brand Lists for Federal Purchasers:

1. Mandatory purchase items for federal purchasers compiled by EPA.

These include products designated under the federal Energy Star, CPG, Bio-Preferred, Federal Energy Management Program (FEMP), EPEAT, and WaterSense programs. *Items identified as Energy Star or FEMP-designated energy efficient products and items under the CPG program MUST be purchased in accordance with FAR Part 23.* The mandatory purchase lists can also help federal agencies meet the requirements of Executive Orders 13423 and 13514 and FAR Part 23.

<http://yosemite1.epa.gov/oppt/epstand2.nsf/Pages/DisplayProduct.html?Open&cleaning&Type=5>

2. Products compiled by other organizations.

Product lists compiled by other organizations can also help federal agencies meet the requirements of Executive Orders 13423 and 13514, FAR Part 23, and other federal mandates. While not all of the items listed in this section are subject to federal purchase mandates or FAR Part 23, they are available with environmentally preferable attributes and should be given preferential consideration in every procurement opportunity.

<http://yosemite1.epa.gov/oppt/epstand2.nsf/Pages/DisplayProduct.html?Open&cleaning&Type=6>

B. EPP's Cleaning Product and Services Page

<http://www.epa.gov/epp/pubs/products/cleaning.htm>

C. Tips for Buying Green with the Government Credit Card

<http://www.epa.gov/epp/tools/creditcard.htm>

Current Practices, Contacts, and Resources (links below)

1. **Design for the Environment (DfE):** The DfE program allows use of its logo on products that are made of safer chemicals. A DfE on a product means that the DfE scientific review team has screened each ingredient for potential human health and environmental effects and that the product contains only those ingredients that pose the least concern among chemicals in their class.
1. **The National Park Service:** The NPS conducted a comprehensive evaluation of the janitorial products and work practices used at Grand Teton and Yellowstone National Parks, including the management and training issues associated with this "greening" initiative.
2. **Department of Interior Headquarters:** The DOI included environmental preferability as a major factor in the selection of the new janitorial services contractor for its headquarters buildings.
3. **U.S. General Services Administration (GSA):** GSA makes a wide range of products and services available to the federal community, including many cleaning products. Resources include the GSA Global Supply Web site, the GSA Advantage! Web site, and GSA's annual Environmental Products and Services Guide.



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4. **Commonwealth of Massachusetts, Minnesota, King County, Washington, and Santa Monica, California:** Describes in detail the process Massachusetts, Minnesota, King County, and Santa Monica used to identify environmentally preferable cleaning products and establish state purchasing specifications.
5. **Canada's Environmental Choice Program:** Criteria for earning Environment Canada's EcoLogo
6. **ASTM International:** One of the world's largest voluntary consensus standards development organizations and a trusted source for technical standards
7. **Center for a New American Dream:** The Center's Cleaning Products Work Group convened a group of state and local officials who agreed upon a set of mandatory and desirable environmental criteria for cleaning products.
8. **Consumer Specialty Products Association:** Trade associations representing the interests of the consumer specialty products industry.
9. **Green Seal:** Contains Green Seal's voluntary environmental standards for industrial and institutional cleaners.
10. **INFORM, Inc.:** Issued a guide to environmentally preferable cleaning products and methods that have effectively been used in the US and Canada.
11. **Janitorial Products Pollution Prevention Project:** Sponsored by the US & California EPA, and several cities and counties in CA, this project has developed resources about topics related to janitorial products and work practices.
12. **The Soap and Detergent Association:** Contains information on a wide range of topics related to cleaning products.
13. **Washington Toxics Coalition:** Provides information regarding public health and environmental issues associated with a variety of products.
14. **Unified Green Cleaning Alliance (UGCA):** Supports the development and dissemination of sustainable cleaning formulations into industry.
15. **Perrigo:** A leading manufacturer of consumer products. Developed a list of product attributes, including environmental factors, cleaning effectiveness and price information.
16. **ISSA:** The Worldwide Cleaning Industry Association that provides information on green cleaning products and implementation of green cleaning programs.

Links and Other Sources

Executive Order 13514-Federal Leadership in Environmental, Energy and Economic Performance (PDF)
http://www.whitehouse.gov/assets/documents/2009fedleader_eo_rel.pdf

Executive Order 13423

<https://www.fedcenter.gov/programs/eo13423/>

FAR Part 23

<http://www.acquisition.gov/far/current/html/FARTOCP23.html>

Database of Environmental Information for Products and Services

<http://yosemite1.epa.gov/oppt/epstand2.nsf>

Environmentally Preferable Purchasing Program (EPP)

<http://www.epa.gov/epp/pubs/about/about.htm>

Federal Trade Commission Green Guides

<http://www.ftc.gov/news-events/media-resources/truth-advertising/green-guides>



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OECD definition of “ready biodegradability”

<http://www.oecd.org/env/ehs/testing/34898616.pdf>

National Park Service evaluation of janitorial products and work practices

<http://www.epa.gov/epp/pubs/case/cleaning.pdf>

GSA Global Supply

https://www.gsaglobalsupply.gsa.gov/advantage/main/start_page.do?store=FSS

GSA Advantage! (information to assist customers in finding environmentally oriented items)

https://www.gsaadvantage.gov/advantage/main/start_page.do

Commonwealth of Massachusetts

<http://www.mass.gov/anf/budget-taxes-and-procurement/oversight-agencies/osd/>

State of Minnesota

<http://www.moea.state.mn.us/lc/purchasing/cleaners.cfm>

EPP Program’s case study on the success of Santa Monica, California (Santa Monica has been a leader in green purchasing and their contract specifications have served as a model for specifications developed by a number of other local, state and federal institutions)

<http://www.epa.gov/epp/pubs/case/santa.pdf>

Specifications for earning Environment Canada’s EcoLogo

<http://www.environmentalchoice.com/>

ASTM International

<http://www.astm.org/>

Center for a New American Dream

<http://www.newdream.org/>

Consumer Specialty Products Association

<http://www.cspa.org/>

Green Seal

<http://www.greenseal.org/>

INFORM, Inc.

<http://www.informinc.org/cleanforhealth.php>

Janitorial Products Pollution Prevention Project



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<http://www.westp2net.org/Janitorial/jp4.cfm>

The Soap and Detergent Association

<http://www.sdahq.org/>

Washington Toxics Coalition

<http://watoxics.org/>

Unified Green Cleaning Alliance (UGCA)

<http://www.zerowaste.org/ugca.htm>

EPP Program's case study on Perrigo, Private Sector Pioneers

<http://www.epa.gov/epp/pubs/case/privsect.pdf>

ISSA (Worldwide Cleaning Industry Association)

http://www.issa.com/?id=green_cleaning1&lg=



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