

# Environmentally Preferable Janitorial Cleaning Products

for Commercial Applications



**STOPWASTE**  
Fact Sheet



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We don't just clean buildings for aesthetic reasons. We clean buildings to protect human health. How can anyone claim to be protecting human health if they are using chemicals known to be hazardous?

Safe products are commercially available at little to no additional cost. They work just as effectively as the other products. Why would anyone use anything else?"

– Scot Case, formerly with UL Environment, EcoLogo Program

According to the Western Sustainability & Pollution Prevention Network, nearly one-third of all janitorial cleaning products have ingredients that can cause harm. The highest risk cleaning products are associated with cancer, reproductive disorders, poisonous ingredients, skin and eye irritation, or respiratory ailments. These products, when used, can also pollute local water resources, harming fish, plants and wildlife.

Janitorial cleaning products with reduced health, safety, and environmental impacts are readily available and have been successfully used around the country in both public and private settings. Many facility managers view switching to “green” cleaning products as a necessity to reduce worker complaints, health and safety issues, and their associated costs.

This guide is intended to provide strategies and resources to help government agencies, schools, businesses and other organizations make the transition to environmentally preferable cleaning products for the health of both their people and the planet.

# 1. RISKS AND HAZARDS OF TRADITIONAL CLEANERS

The cleaning industry uses an estimated 6 billion pounds of chemicals each year, and many of these cleaning products have significant adverse impacts on indoor air quality, human health, and the environment. For example:

- Acids from toilet bowl cleaners may cause burns to the skin and blindness to the eye.
- Traditional glass cleaners contain a form of glycol ethers known to be a poison absorbed through the skin.
- Some industrial and household cleaning products can create a respiratory hazard when used in poorly ventilated areas.
- Some cleaning agents contain chemical substances that can harm the earth's protective ozone layer, or toxic chemicals that do not degrade easily and persist in the environment.



## DID YOU KNOW?

U.S. institutions spend more than \$85 million a year on medical expenses and lost time wages for janitors due to chemical-related injuries.

## A. Impacts on People

- Those who spend much of their time indoors, like students, patients, and office workers, are particularly susceptible to health problems caused by cleaning products.
- Children and younger students are especially vulnerable to the chemicals found in cleaning agents because they have the most contact with their surroundings and are most susceptible to the long term impact of chemicals on their developing bodies.
- Four million janitors in North America experience unnecessarily high injury rates with some experts estimating that 6 out of every 100 are injured by the chemicals they use.
- The chemicals most frequently involved in poisonings reported to U.S. Poison Control Centers are cleaning products.

## B. Impacts on the Environment

- **Volatile organic compounds (VOCs)**

VOCs contribute to poor indoor and outdoor air quality and are found in many cleaning products. General purpose cleaners are responsible for approximately eight percent of total non-vehicular emissions of VOCs.

- **Energy and Greenhouse Gas (GHG) Emissions**

The chemical industry uses fossil fuels for energy in the production of cleaners. Fossil fuels are non-renewable resources that emit carbon dioxide into the atmosphere, a major cause of global warming. Production of cleaners requires energy from these fuels during raw material extraction, manufacturing, transportation, use and disposal. Petroleum and natural gas are the major sources of hydrocarbons from which the chemicals are made. Energy is also used to mine phosphates, carbonates and silicates that are used in cleaners to remove grease and oil from surfaces.

## 2. FINDING SAFER ALTERNATIVES

Concern over the effects of traditional cleaners has led to the development of a wide range of environmentally preferable cleaning products that can handle the same commercial, industrial, and residential cleaning needs as traditional cleaners. Examples of environmentally preferable commercial cleaning products include:

- General Purpose Cleaners
- Carpet and Upholstery Cleaners
- Glass Cleaners
- Floor Cleaners (Maintenance, Strippers, Finishes)
- Bathroom Cleaners
- Furniture Polish
- Disinfectants and Sanitizers
- Liquid Hand Soap
- Cleaner/Degreasers



Many San Francisco Bay Area janitorial companies are now using certified “green” products to clean buildings. They’re achieving cost savings by switching, especially from worker’s compensation claims. Their employees appreciate reduced hazards, and customers report cleaning quality continues to meet their high standards.

### 3. STEPS FOR SUCCESS

Two proven steps your organization can take to transition to environmentally preferable products are:

- Buy products that are certified by Green Seal or ECOLOGO.
- Specify cleaning products and supplies in bid documents and service agreements.

#### A. Buy Certified Products

When buying certified products, choose third party certifying organizations that use open, transparent standards and evaluate multiple attributes based on the lifecycle of the product. There are only two certification programs that have been approved in the US for cleaning products: Green Seal & ECOLOGO.



##### Green Seal Certified Products

[Green Seal](#) has been developing life cycle-based sustainability standards and conducting third party certification since 1989.

Also consider using [Green Seal's Cleaning Services Standard](#) (GS-42). It applies to all indoor activities typically required to clean commercial, public, and industrial buildings including planning, products, supplies, equipment, procedures, training, communications and labeling.

<http://www.greenseal.org>



##### ECOLOGO Certified Products

UL Environment's [ECOLOGO program](#) certifies products that meet multi-attribute, life cycle-based sustainability standards.

More information and resources are available online at UL's "[Sustainable Products Guide](#)."

<http://industries.ul.com/environment>

## B. INCLUDE GREEN SPECIFICATIONS IN BID DOCUMENTS

By including requirements in bid documents that contractors buy and use certified products, you can help ensure the health and safety of your staff. It can be as simple as a statement like the following in bid documents and contracts you issue:



*“...products shall be certified to the most recent Green Seal or UL/ECOLOGO standard...”*

### Examples and References

The Alameda County General Services Agency solicited bids for green cleaners with very specific requirements. An excerpt of the [bid’s environmental specifications](#) is available online.

[http://acgov.org/sustain/documents/JanitorialCleaningProductsBid\\_Excerpt.pdf](http://acgov.org/sustain/documents/JanitorialCleaningProductsBid_Excerpt.pdf)

Additional examples of bid and contract language are provided here and in Appendix A:

- [City of Portland, Oregon](#)  
<http://www.portlandoregon.gov/sustainabilityatwork/article/535832>
- [King County, Washington](#)  
[http://www.kingcounty.gov/operations/procurement/Services/Environmental\\_Purchasing/Products.aspx](http://www.kingcounty.gov/operations/procurement/Services/Environmental_Purchasing/Products.aspx)
- [Commonwealth of Massachusetts](#)  
<http://www.mass.gov/anf/budget-taxes-and-procurement/procurement-info-and-res/procurement-prog-and-serv/epp-procurement-prog/>
- [State of Minnesota](#)  
<http://www.pca.state.mn.us/index.php/topivcs/preventing-waste-and-pollution/environmentally-preferable-purchasing/state-contracts.html>



To avoid misrepresentations or “green washing” of “environmentally safe” or “green” cleaners, be sure to ask for and/or specify certified Green Seal or ECOLOGO products.

## 4. LOCAL AGENCIES CLEANING GREEN

Green cleaning products are successfully being used in at least 9 Alameda County jurisdictions:

- Alameda County
- Castro Valley Sanitary District
- Albany
- Berkeley
- Dublin
- Fremont
- Livermore
- Pleasanton
- San Leandro

Alameda County and Castro Valley Sanitary District further specify local vendors and the City of Pleasanton extends their purchasing options to the Pleasanton Unified School District.

## 5. BEST PRACTICES FOR YOUR GREEN CLEANING PROGRAM

- Specify cleaning products and supplies that are certified by Green Seal or ECOLOGO. Also specify training, reporting, packaging reduction and any other agency environmental priorities.
- Consider adopting applicable procedures and practices in Green Seal’s commercial cleaning standard (GS-42).
- Isolate janitorial supplies to dedicated closets to reduce occupants’ exposure.
- Require on-site training for staff in proper use of products from manufacturers or distributors.
- Consider reducing the total number of stocked cleaning products by using concentrated multi-purpose cleaners which can be diluted to various strengths using a dilution control system.



### Greener = more expensive? Don't let this myth prevail.

We've asked, and Bay Area governments and businesses have reported no increase in costs after switching to environmentally preferable cleaners. **In fact, Santa Monica, California documented a five percent price savings after its switch to green cleaners.**

By switching to green cleaners, Santa Clara County saves 15,000 pounds annually in hazardous wastes and associated costs, all without sacrificing quality or performance.

## 6. ADDITIONAL RESOURCES

There are many resources available to help identify products and their performance, see sample bids and specifications, and read case studies of successful programs.

- [StopWaste](http://stopwaste.org/epp) offers technical assistance to Alameda County public agencies for purchasing environmentally preferable products. The website features resources such as additional fact sheets, guides and links to other helpful environmental purchasing websites and documents.  
<http://stopwaste.org/epp>
- The [RecycleWhere?](http://recyclewhere.org) website provides information on how and where to recycle any type of recyclable item in Alameda County.  
<http://recyclewhere.org>
- [Alameda County and the General Services Agency](http://www.acsustain.org) are committed to sharing their resources and experiences to promote green purchasing in public agencies. Policies, success stories, bids, specifications and other resources are available at the website.  
<http://www.acsustain.org>
- [San Francisco's Multi-Lingual Green Cleaning Program](http://sfenvironment.org/article/business/custodial-green-cleaning) covers the benefits of green cleaning, green cleaning products and procedures, and proper disposal of waste and hazardous waste.  
<http://sfenvironment.org/article/business/custodial-green-cleaning>
- [SF APPROVED](http://www.sfapproved.org) provides a directory of green products and services that meet San Francisco's health and environmental requirements .  
<http://www.sfapproved.org>
- [The California Department of General Services Environmentally Preferable Purchasing Program](http://www.dgs.ca.gov/buyinggreen) provides information on how the State is succeeding in buying environmentally sustainable products and services.  
<http://www.dgs.ca.gov/buyinggreen>
- [The U.S. Environmental Protection Agency's Sustainable Marketplace](http://www.epa.gov/greenerproducts) provides information and tools for institutional purchasers, consumers and manufacturers to help identify, evaluate and purchase greener products and services.  
<http://www.epa.gov/greenerproducts>
- [EPA's Safer Choice](http://www.epa.gov/saferchoice) label helps consumers, businesses, and purchasers find products that perform well and are safer for human health and the environment.  
<http://www.epa.gov/saferchoice>
- [Western Sustainability & Pollution Prevention Network](http://www.wsppn.org/studies/janitorial) (WSPPN) is a strategic alliance involving local, state, federal and tribal pollution prevention (P2) programs throughout EPA Region 9.  
<http://www.wsppn.org/studies/janitorial>
- [The Responsible Purchasing Network](http://www.responsiblepurchasing.org) (RPN) offers procurement-related professional guides and resources on socially responsible and environmentally sustainable purchasing.  
<http://www.responsiblepurchasing.org> (some resources are only available to members)

## 7. APPENDIX: SAMPLE SPECIFICATIONS FOR BUYING ENVIRONMENTALLY PREFERABLE CLEANING PRODUCTS

It's helpful to specify your standards for green cleaning products in your janitorial bid and contract. It also helps to specify requirements for training, labeling, dispensing systems, samples and reporting.

This Appendix includes excerpts from bids and contracts used by the City of Portland, Oregon, King County, Washington and Alameda County General Services Agency for environmentally preferable janitorial cleaning products.

### A. City of Portland, Oregon Contract Specifications for Green Cleaning Products

<http://www.portlandoregon.gov/sustainabilityatwork/article/535832>

Product Type	Specification/Technical Requirement
General/Multi-Purpose Bathroom and Glass Cleaners (including descales/shower cleaners)	<ul style="list-style-type: none"> <li>Green Seal GS-37 and/or UL 2759 certified</li> </ul>
Carpet Cleaners	<ul style="list-style-type: none"> <li>Green Seal GS-37 certified and/or UL 2795 certified</li> </ul>
Other hard surface cleaners	<ul style="list-style-type: none"> <li>UL 2759 certified</li> </ul>
Degreasers	<ul style="list-style-type: none"> <li>UL 2792 certified</li> </ul>
Hard Floor Care Cleaning Products	<ul style="list-style-type: none"> <li>Green Seal GS-40 certified and/or UL 2777 certified</li> </ul>
Metal Polish	<ul style="list-style-type: none"> <li>Percent Volatile Organic Compound (VOC) by weight must not exceed 30%</li> </ul>
Disinfectants or Sanitizers	<ul style="list-style-type: none"> <li>EPA registered active disinfectant/sanitizer ingredient(s)</li> <li>Disinfectant/sanitizer shall not contain benzalkonium chloride (a surfactant belonging to the quaternary ammonium compound group with a CAS # 8001-54-5)</li> <li>Percent Volatile Organic Compound (VOC) by weight must not exceed 1% for non-aerosol products or 70% for aerosol products.</li> </ul>
Graffiti Remover	<ul style="list-style-type: none"> <li>Percent Volatile Organic Compound (VOC) by weight must not exceed 30% for non-aerosol products of 50% for aerosol products</li> <li>Products cannot contain methylene chloride, perchloroethylene, or trichloroethylene.</li> </ul>
Misc. Specialty Cleaners spot removers, gum remover, etc.	<ul style="list-style-type: none"> <li>Comply with the California Code of Regulations maximum allowable VOC levels for the specific product category</li> </ul>

Product Type	Specification/Technical Requirement
Hand Soaps	<ul style="list-style-type: none"> <li>No antimicrobial agents (other than a preservative) except where required by health codes and other regulations</li> <li>Green Seal GS-41 or UL 2784 certified</li> </ul>
Waterless Instant Hand Sanitizers	<ul style="list-style-type: none"> <li>Product must contain at least 60% alcohol</li> <li>UL 2783 certified</li> </ul>
Miscellaneous Cleaning Products	<p>Identify the least-toxic option by:</p> <ul style="list-style-type: none"> <li>Seeking products that meet the intent of the Green Seal or ECOLOGO (UL) standards</li> <li>Referring to the EPA Safer Choice for products recognized by that program (e.g. deicers, graffiti removers) that are not certified by Green Seal or ECOLOGO.</li> <li>Products do not contain known carcinogens, reproductive toxins, asthamagens, and other toxic ingredients</li> <li>Minimize impact on indoor air quality and the environment (e.g. products that are low-VOC and readily safely biodegrade in aquatic environments)</li> <li>Research least-toxic options from other resources as applicable.</li> </ul>

## B. King County, Washington Bid Document Excerpts for Training and Labeling

[http://www.kingcounty.gov/operations/procurement/Services/Environmental\\_Purchasing/Products.aspx](http://www.kingcounty.gov/operations/procurement/Services/Environmental_Purchasing/Products.aspx)

### 1. Training

Bidders shall offer comprehensive training and materials for the proper use of the chemicals bid including step-by-step instructions for the proper dilution (including chemical dispensing equipment training), use and disposal. Training shall be provided at no additional charge to King County. Bidder shall submit with their bid a description of the training offered to include the following criteria:

- On-site initial training for use of products.
- Ongoing training either on-site or at designated sites throughout King County.
- A phone number, local to Seattle or toll-free, operated by staff knowledgeable of the products bid for a minimum of eight (8) consecutive hours Monday through Friday anytime between 6:00AM and 6:00PM, for departments to call to receive instructions and assistance on product use.
- Description of all available training including the scope.
- Identification of staff and personnel who conduct the training.

Training format/tools:

- Instructional procedural video
- Printed resource manual
- Brochures or laminated reference cards

## 2. Labeling

The manufacturer's label shall state clearly and prominently that dilution with water from the cold tap is recommended and shall state the recommended level of dilution. The manufacturer shall also include detailed instructions for proper use and disposal and for the use of personal protective equipment.

## C. Alameda County, California Bid Document: Excerpts for Dispensers, Samples and Reports

 [http://www.acgov.org/sustain/documents/JanitorialCleaningProductsBid\\_Excerpt.pdf](http://www.acgov.org/sustain/documents/JanitorialCleaningProductsBid_Excerpt.pdf)

### 1a. Dispensers

Dispensers will be required for some of the cleaning products, while for other products, it will be a desirable specification. If none is stated, a dispenser is not desired by the County.

All dispensers for the cleaning products must be closed dilution-control system dispensers, which automatically dilute concentrated products using water directly from the water pipes and prevent the concentrated product from being accessed by users.

All dispensers will be provided to the County at no additional cost.

Most dispensers will be installed by the General Services Agency (GSA) Building Maintenance Building (BMD). If installation is required by the vendor(s), this will be provided to the County at no additional cost.

### 1e. Samples

The bidders may be requested to furnish 5 gallon sized, in a ready-to-use dilution, sample of product(s) bid for examination by the County. Any product(s) so requested shall be furnished within five (5) business days from the date of request and furnished at no cost to the County and sent to the GSA-Purchasing Department.

### 3. Reports

Contractor shall provide electronic quarterly usage reports to the GSA Sustainability Department and to the Purchasing Department Procurement Specialist for Janitorial Cleaning products at no cost to the County. These reports shall be submitted in a Microsoft Excel electronic file and be formatted in such a way as to be sortable.

The County will work with the Vendor(s) to finalize the format of these reports upon contract award. These reports will be issued within three weeks of the close of the previous quarter. Electronic and/or hard copies of these reports shall be sent to additional County business units upon request. Ad hoc reports shall be provided by the Contractor as required at no additional cost. Below is a description of the minimum information that will be included in the report:

- Purchase date
- Customer number (provide key)
- Item part number
- Item description (e.g., brand, size, color, etc.)
- Type of unit used for pricing (e.g., each, box)
- Units purchased (i.e., order quantity)
- Shipped quantity (if not same as order quantity)
- Unit price (i.e., charge to customer)
- Order cost
- Certification standard met by product, if any (e.g. Green Seal, ECOLOGO or DfE (Safer Choice)).

### Disclaimer

The information provided in this Fact Sheet should be considered by public agency and business purchasers who are interested in buying environmentally preferable products. StopWaste provides it as a public service in an attempt to provide environmental benefits and reduce costs. Listing in this Fact Sheet is not a recommendation or an endorsement. This Fact Sheet is not a substitute for the exercise of sound judgment in particular circumstances and is not intended as recommendations for particular products or processes. StopWaste is the Alameda County Waste Management Authority, the Alameda County Source Reduction and Recycling Board, and the Energy Council operating as one public agency.

This Fact Sheet was prepared by Kies Strategies & StopWaste in October 2015.