

## Environmentally Preferable Janitorial Cleaning Products For Commercial Applications

*"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**, former Director of Institutional Purchasing  
Center for a New American Dream

According to the Western Regional 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.



### Risks and Hazards of Traditional Cleaners

The U.S. Environmental Protection Agency (EPA) ranks indoor air quality among the top five environmental risks and links it, in part, to cleaning product exposure. The average janitor uses an estimated 28 gallons of chemicals per year.

The cleaning industry uses an estimated 5 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 skin absorbing poison.
- ◆ 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 are persistent in the environment and do not degrade easily.

## Did You Know?

U.S. institutions spend more than \$75 million a year on medical expenses and lost time wages for janitors due to chemical-related injuries.

## 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

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

One of the biggest challenges to purchasers in buying environmentally preferable products (EPP) has been identifying appropriate environmental criteria for what is an acceptable environmentally safe cleaning product. Fortunately, many organizations have taken the lead in developing consensus-based standards or in certifying products as “green.” Purchasers are encouraged to consider the following, as some of the options available, to make it easier to purchase environmentally preferable cleaning products.

1. **Buy Certified or Low-Risk Products.** Rely on ratings by others, such as Green Seal, a national non-profit that sets standards and performs third-party certification of products and services that cause less toxic pollution and waste, conserve resources and habitats, and minimize global warming and ozone depletion. Green Seal has certified cleaning products in several categories meeting their *Industrial and Institutional Cleaners Standard (GS-37)* and *Industrial and Institutional Floor-Care Products Standard (GS-40)*. For a list of cleaning products that meet these standards, visit [www.greenseal.org/certproducts.htm](http://www.greenseal.org/certproducts.htm).

Canada’s Environmental Choice program is another certification program that helps consumers identify products and services, including cleaners and janitorial products, which are less harmful to the environment. Visit [www.environmentalchoice.com](http://www.environmentalchoice.com).

Another organization, Scientific Certification Systems (SCS), has certified cleaning products for biodegradability. Visit SCS on-line at [www.scscertified.com](http://www.scscertified.com).

2. **Follow the Pioneers.** Many government agencies, janitorial cleaning services and private businesses are purchasing and successfully using green cleaning products. Their specifications and results are readily available.

**The Commonwealth of Massachusetts**, using the National Consensus-Based Standard developed by a work group of experts coordinated by the Center for a New American Dream, was the first work group member to bid cleaning products using the group's environmental criteria. Before products were awarded, the State extensively tested all of

the approved cleaners at an independent laboratory at the Toxics Use Reduction Institute at the University of Massachusetts Lowell using three different surfaces and soils. They found the cleaners performed as well as, if not better than, the traditional products they replaced. The State also found cost was comparable to traditional cleaners. Find more information about their program at [www.mass.gov/epp/products/cleaning.htm](http://www.mass.gov/epp/products/cleaning.htm).

**The City of Santa Monica** used the same criteria as Massachusetts in their “green” cleaning products bid in 2004 and found similar results. The city estimates its cleaning product purchases have eliminated 3,200 pounds of hazardous materials annually and saved approximately 5% on cleaning expenses. Visit [www.santa-monica.org/epd/](http://www.santa-monica.org/epd/).

For a list of cleaning products approved by Massachusetts and Santa Monica in the bidding process, refer to [www.newdream.org/procure/products/approved.php](http://www.newdream.org/procure/products/approved.php).

**Alameda County, California** has also bid environmentally preferable cleaning products using Green Seal's GS-37 and GS-40 standards and the national consensus-based criteria.

Other government pioneers:

- ◆ U.S. Department of Interior
- ◆ Yosemite National Park
- ◆ State of Vermont
- ◆ State of Washington
- ◆ State of California
- ◆ State of Minnesota
- ◆ King County, WA
- ◆ Pacific Northwest National Laboratory
- ◆ City of Seattle, WA
- ◆ City & County of San Francisco, CA
- ◆ City of Berkeley, CA
- ◆ City of Livermore, CA
- ◆ City of San Leandro, CA
- ◆ City of Palo Alto, CA

Many janitorial cleaning service companies in the San Francisco Bay Area are using cleaning products certified as “green” to clean buildings. By switching, these companies have achieved cost savings, especially from worker's compensation claims. Their employees appreciate the reduced hazards, and customers report cleaning quality continues to meet their high standards.

3. **Evaluate Product Risks Yourself.** Ask vendors for detailed information on the environmental attributes of concern to your organization. Use a questionnaire to solicit more details. Review and compare products.

Several public agencies, such as the City of Seattle and States of Vermont and Minnesota, have taken upon themselves to evaluate cleaning product risks. Not only did they request product literature and technical specification information, such as Material Safety Data Sheets, some also included a questionnaire to gain more product ingredient information. Two states created a tool to assist in evaluating bid submittals they call the *Automated Manufacturers Product Assessment Tool*, or MPAT, to help decrease the time to review product ingredients.



- ◆ The City of Seattle’s evaluation of cleaning products used a “pass/fail” system to rate environmental and safety issues.  
[www.cityofseattle.net/environment/Documents/cleaningproducts.pdf](http://www.cityofseattle.net/environment/Documents/cleaningproducts.pdf)
- ◆ The State of Vermont created and utilized MPAT.  
[www.bgs.state.vt.us/PCA/enviro.htm](http://www.bgs.state.vt.us/PCA/enviro.htm).

- ◆ The State of Minnesota formulated their environmental criteria with the help of “green teams,” consisting of internal staff and outside experts.

***[www.moea.state.mn.us/lc/purchasing/cleaners.cfm](http://www.moea.state.mn.us/lc/purchasing/cleaners.cfm)***

Evaluating product risks can be time consuming so many agencies prefer to either follow the pioneers or specify certified or low-risk products.

Remember to always test for product effectiveness with any of these options and train workers to use products according to manufacturers’ instructions.

## **Creation of a National Consensus-Based Standard**

In response to competing standards and specifications, a national, multi-agency work group of purchasers from local, county and state agencies that pioneered “green” cleaning products sought to identify common environmental criteria for what defines an environmentally preferable cleaning product.

Following a year of study, the work group, organized by a non-profit organization, the Center for a New American Dream, agreed that Green Seal’s *Institutional and Industrial Cleaning Standard, GS-37*, was an acceptable standard meeting each of their needs. As mentioned earlier, the Commonwealth of Massachusetts was the first agency to use the work group’s results. Their specifications and approved cleaning products are available from the Center for a New American Dream’s website, ***[www.newdream.org/clean](http://www.newdream.org/clean)***.

This national consensus-based criterion also adds more cleaning product categories to its criteria than Green Seal’s standard. Green Seal’s GS-37 covers four product categories: bathroom cleaners, glass cleaners, all-purpose cleaners, and carpet cleaners. The National Consensus-Based Standard now includes 15 product categories. But advances in green cleaning products are taking place rapidly. Green Seal has recently completed a new standard on *Floor-Care Products: Finishes and Compatible Strippers Used for Industrial and Institutional Purposes (GS-40)* (***[www.greenseal.org/standards/g40.pdf](http://www.greenseal.org/standards/g40.pdf)***), and continues to certify many new products each year.

Today, these and other pioneering efforts make purchasing environmentally safe cleaning products easier by providing much needed tools: product specifications and lists of approved/certified cleaning products.

## **Specifications for Buying Environmentally Preferable Cleaning Products**

Based on the National Consensus-Based Standard (NCBS) used by the Commonwealth of Massachusetts, Green Seal’s *Industrial and Institutional Cleaners Standard (GS-37)*, and the availability of certified products, a sample specification is provided in Appendix A.

Table 1 below lists example standards and specifications that either utilize the National Consensus-Based Standard by the Center for a New American Dream, Green Seal’s standards, or criteria created by others.

Sample Specifications	Environmental Standards Used	Sample Product Categories
Commonwealth of Massachusetts RFR bid language, <a href="http://www.mass.gov/epp/products/cleaning.htm">www.mass.gov/epp/products/cleaning.htm</a>	Green Seal's <i>Industrial and Institutional Cleaning Standard, GS-37</i> , <a href="http://www.greenseal.org/standards/g37.pdf">www.greenseal.org/standards/g37.pdf</a> National Consensus-Based Standard created by a work group organized by the Center for a New American Dream, <a href="http://www.newdream.org/clean">www.newdream.org/clean</a>	All Purpose Cleaners Window Cleaners Bathroom Cleaners Floor Care Products Carpet Cleaners Hand Soaps Disinfectants
City of Santa Monica Environmental Programs Division 310-458-2213		
State of Vermont <a href="http://www.bgs.state.vt.us/PCA/enviro.htm">www.bgs.state.vt.us/PCA/enviro.htm</a>	Vermont developed an Automated Manufacturers Product Assessment Tool (MPAT)	All Purpose Cleaners Window Cleaners Bathroom Cleaners (and more)
State of Minnesota <a href="http://www.moea.state.mn.us/lc/purchasing/cleaners.cfm">www.moea.state.mn.us/lc/purchasing/cleaners.cfm</a>	Minnesota created their own environmentally preferable cleaning product standard for 33 product categories	All Purpose Cleaners Bathroom Cleaners Glass Cleaners Soaps Floor Care Products (and more)
City & County of San Francisco <a href="http://www.sfenvironment.com/aboutus/innovative/epp/specs_janchem05.pdf">www.sfenvironment.com/aboutus/innovative/epp/specs_janchem05.pdf</a>	Green Seal's <i>Industrial and Institutional Cleaning Standard, GS-37</i> (March 2005), plus three of their own technical specifications	All Purpose Cleaners Bathroom Cleaners Glass Cleaners Disinfectants Carpet Cleaners Floor Cleaner

**Table 1: Sample of Commercial Cleaning Product Standards and Specifications**

For more samples of environmentally preferable contracts and specifications, refer to the U.S. EPA's Database of Environmentally Preferable Products at [www.epa.gov/opptintr/epp/](http://www.epa.gov/opptintr/epp/).

## Steps for Success - Local Examples



The Cities of Livermore and Berkeley, California have both taken steps to use environmentally preferable cleaners. Each city has evaluated the effectiveness of bathroom cleaners, disinfectants, all-purpose cleaners and glass cleaners over a pre-determined period of time. They selected products that were either Green Seal certified or met the National Consensus-Based Standard (products approved by the Commonwealth of Massachusetts or the City of Santa Monica). After testing products, each city identified cleaners

that met their stringent cleaning requirements and budgets. Both cities continue measures to increase the use of safer products in other categories.

## 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.

- ◆ Appendix B contains a list of other links and resources for purchasing environmentally preferable cleaning products.
- ◆ StopWaste.Org offers technical assistance for applicable recycled content and environmentally preferable product purchasing. Check out “*Environmentally Preferable Purchasing*” at the Agency's website ([www.StopWaste.Org/EPP](http://www.StopWaste.Org/EPP)) for an annotated list of

resources and links to other environmental purchasing websites and documents.

- ◆ Alameda County businesses can contact Rachel Balsley at [rbalsley@stopwaste.org](mailto:rbalsley@stopwaste.org) or Rory Bakke at [rbakke@stopwaste.org](mailto:rbakke@stopwaste.org) for information about the StopWaste Partnership for technical assistance. Also see [\*www.StopWaste.Org/Partnership\*](http://www.StopWaste.Org/Partnership).
- ◆ Local governments in Alameda County can contact Debra Kaufman at [dkaufman@stopwaste.org](mailto:dkaufman@stopwaste.org) or Rachel Balsley at [rbalsley@stopwaste.org](mailto:rbalsley@stopwaste.org) for information about environmentally preferable purchasing technical and financial assistance.
- ◆ Contact the Alameda County Recycling Hotline, toll-free at 1-877-STOPWASTE (786-7927) for information about recycling and waste prevention opportunities in Alameda County.

**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.Org 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.Org is the Alameda County Waste Management Authority and Source Reduction and Recycling Board operating as one public agency.

This Fact Sheet was prepared in February 2006 by Kies Strategies and EPE Consulting on behalf of StopWaste.Org.

# Appendix A: Specifications for Environmentally Preferable Janitorial Cleaning Products

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## TERMS AND CONDITIONS

### 1. Scope

As part of the [organization's] effort to purchase environmentally preferable products (EPPs) and to address certain environmental and health concerns associated with some cleaning products, it is the intent of this [RFP/RFQ/bid] to establish a contract for environmentally preferable janitorial cleaning products which, through meeting specific standards, represent a lesser impact to public health and the environment than competing products and which perform at or beyond the standards established by the [organization].

The categories of products to be provided under this contract include:

1. General Purpose Cleaners
2. Bathroom Cleaners
3. Glass Cleaners
4. Cleaners/Degreasers
5. Floor Cleaners
6. Floor Care: Finishes and Strippers

#### Note to Purchasers:

Green Seal, an independent, non-profit environmental labeling organization, has developed standards for products and services that meet the U.S. Environmental Protection Agency's criteria for third-party certifiers. Their standards for industrial and institutional cleaners and floor care are referenced in these specifications. Green Seal has certified numerous products that are available in the six product categories noted above.

There are additional janitorial cleaning product categories that could be included in this list that are emerging in the marketplace. Some of these include disinfectants, carpet cleaners, hand soaps, and furniture polish. If you are interested in including any of these products in your bid and want more information, please contact Beth Eckl, consultant to StopWaste.Org at 925-838-2731 or eckl@sbcglobal.net.

### 2. Specification Development

For the purposes of this [RFP/RFQ/bid], the minimum standards established for the performance of these products are based on the Green Seal Standard for *Industrial and Institutional Cleaners* (GS-37), [www.greenseal.org/standards/gs37.pdf](http://www.greenseal.org/standards/gs37.pdf), and the Green Seal Standard for *Industrial and Institutional Floor-Care Products* (GS-40), [www.greenseal.org/standards/gs40.pdf](http://www.greenseal.org/standards/gs40.pdf), wherever possible. A list of certified cleaners meeting these standards is available at [www.greenseal.org/certproducts.htm#cleaners](http://www.greenseal.org/certproducts.htm#cleaners).

In addition to GS-37 and GS-40 certified products, there are other product brands that are acceptable. As a result of a national effort to ascertain the environmental preferability of janitorial cleaners, additional products have been pre-approved. This effort uses the GS-37 environmental criteria, in conjunction with other environmental criteria, to evaluate products. Some of the products, such as hand soaps, do not yet have a Green Seal standard. The result of this effort is referred to locally as the "National Consensus-Based Standard" (NCBS).

The NCBS was designed in consultation with various state and local governments, industry experts and others for the purpose of establishing a set of minimum criteria for use in drafting contract

bids. The work group effort to develop a NCBS was coordinated by the Center for a New American Dream. Additional information on this work group and the development of the standard is available on their website at [www.newdream.org/clean/](http://www.newdream.org/clean/). Many products are qualified under the NCBS by other governmental agencies.

Canada's Environmental Choice Program certifies products based on strict environmental standards. A list of janitorial cleaners qualified under both of these standards can be found at the following website: [www.newdream.org/procure/products/approved.php](http://www.newdream.org/procure/products/approved.php).

### 3. **Products**

Bidders **must** be able to provide products in Categories 1 through 6 that meet Green Seal's standards for *Industrial and Institutional Cleaners (GS-37)* or *Industrial and Institutional Floor-Care Products (GS-40)*. These categories include:

1. General Purpose Cleaners
2. Bathroom Cleaners
3. Glass Cleaners
4. Cleaners/Degreasers
5. Floor Cleaners
6. Floor Care: Finishes and Strippers

#### ***Bid Requirements Summary:***

- Bidders must provide quotes for each of the product categories in order to be compliant with bid requirements.
- Bidders must quote cleaners that are Green Seal certified at the time of bid submission ([www.greenseal.org/certproducts.htm#cleaners](http://www.greenseal.org/certproducts.htm#cleaners)) OR they must provide quotes for products previously qualified under the National Consensus Based Standard (NCBS) or Canada's Environmental Choice Program ([www.newdream.org/procure/products/approved.php](http://www.newdream.org/procure/products/approved.php)).
- The [organization] will not undergo individual evaluation of chemical data to assess compliance with GS-37 and GS-40 standards, the NCBS or Environmental Choice.
- Bidders may provide multiple quotes for each category.

### 4. **Product-Specific Health and Environmental Requirements**

Bidders must be able to provide products in Categories 1-6 that meet the Green Seal standards for *Industrial and Institutional Cleaners (GS-37)* and *Industrial and Institutional Floor-Care Products (GS-40)*. The product-specific health and environmental requirements can be found at [www.greenseal.org/standards.htm#environmental](http://www.greenseal.org/standards.htm#environmental).

### 5. **Required Documentation**

1. Bidders must provide proof of Green Seal certification if the product is not listed on the Green Seal website at the time of bid submission.
2. If not Green Seal certified, products must have been previously qualified under the National Consensus-Based Standard (NCBS) or Environmental Choice to be compliant with the bid and appear on the on-line list, [www.newdream.org/procure/products/approved.php](http://www.newdream.org/procure/products/approved.php).
3. Bidders must provide Materials Safety Data Sheets (MSDSs) for all products bids for both concentrate, if provided in concentrated form, and ready-to-use product.



6. **Product Performance Testing**

The [organization] will request samples from the suppliers for assessment once the initial bid evaluations are performed. The [organization's] custodial staff will test the products it chooses to evaluate performance from, but not limited to, cleaning effectiveness, ease of use, and odor. Samples will be provided at no charge and only upon the [organization's] request.

7. **Training**

Mandatory Requirements - The product manufacturer, their distributor, or a third party must offer onsite training and training materials that are consistent with Green Seal's standard for *Industrial and Institutional Cleaners (GS-37)*.

Required Documentation -

- Description of all available training with a description of the type and scope of training to be offered the [organization].
- Identification of the number and expertise of staff and personnel available to conduct such training.
- Description of the support services offered such as a phone number for assistance and the hours during which such a number is accessible.
- Description of any costs associated with training or support. It is desirable that initial training and additional training during the contract term be offered at no additional cost.

8. **Packaging**

Desirable - Bidder's primary packaging should be compliant with Green Seal's standard for *Industrial and Institutional Cleaners (GS-37)*.

Required Documentation - Bidders must specify packaging, recyclable materials, and any percentages of recycled content (particularly postconsumer). Include a description of any return/collections program available and identify any measures to reduce the amount of overall packaging.

9. **Labeling Requirements**

Mandatory - Bidder's products must meet the labeling requirements outlined in Green Seal's standard for *Industrial and Institutional Cleaners (GS-37)*.

Required Documentation - Bidders must demonstrate compliance with this requirement.

10. **Dispensing Equipment**

Desirable - It is desirable that Bidders provide an option for dispensing equipment that reduces worker exposure to chemicals and promotes the appropriate use of the cleaners.

Required Documentation - Bidders must provide a description of available equipment and information on the features that reduce risk and exposure. A detailed description of the recommended dilution and/or dispensing system, including benefits, should be included.

11. **Bid Evaluation Process** (To Be Determined by organization)

# Appendix B: Resources for Purchasing Environmentally Preferable Cleaning Products

## Government Resources

- ◆ U.S. Environmental Protection Agency's (EPA) Greening Your Purchase of Cleaning Products, [www.epa.gov/oppt/epp/pubs/clean/cleaning.htm](http://www.epa.gov/oppt/epp/pubs/clean/cleaning.htm)  
Provides information on some of the human health and environmental concerns of traditional cleaning products as well as benefits, product attributes, and success stories of green cleaners. Also contains a resources section.
- ◆ Janitorial Products Pollution Prevention Project, [www.wrppn.org/janitorial/jp4.htm](http://www.wrppn.org/janitorial/jp4.htm)  
Contains a series of helpful tools including information on the risks associated with more than 100 cleaning product ingredients, a list of high-risk products, and risk evaluation forms. The site also includes a series of fact sheets highlighting the pollution prevention opportunities associated with cleaning products, including recommendations about which chemicals to avoid.
- ◆ U.S. EPA's Environmentally Preferable Purchasing Program, [www.epa.gov/epp](http://www.epa.gov/epp)  
Includes information on several cleaning product pilot projects, including a pilot project conducted jointly by EPA and the US General Services Administration (GSA) and case studies documenting efforts by the City of Santa Monica and the Commonwealth of Massachusetts. It also contains a database containing contract specifications and environmental attribute information for a wide variety of products, including cleaning products. The site also includes a "Purchasing Decision Wizard" to help purchasers select cleaning products from the GSA schedule.
- ◆ U.S. General Services Administration Environmental Products and Services Guide, [www.gsa.gov](http://www.gsa.gov) (click *Products* tab.) Provides environmental attribute information on cleaning products available through the US General Services Administration, one of the federal government's primary suppliers.
- ◆ Canada's Environmental Choice Program, [www.environmentalchoice.com](http://www.environmentalchoice.com)  
Includes a copy of the specifications for earning Environment Canada's EcoLogo for industrial and commercial cleaners, as well as companies meeting the criteria.

## Nongovernmental Resources

- ◆ Green Seal, [www.greenseal.org](http://www.greenseal.org)  
Contains a copy of Green Seal's environmental preferability standards for cleaning products and recommends Green Seal-approved products.
- ◆ INFORM's *Cleaning for Health: Products and Practices for a Safer Indoor Environment*, [www.informinc.org/cleanforhealth.php](http://www.informinc.org/cleanforhealth.php)  
Describes product evaluation methods, lists products meeting INFORM's environmental and performance criteria, and presents model specifications. This report also provides manufacturer contacts and other resources on green cleaners.
- ◆ Scientific Certification Systems, [www.scscertified.com](http://www.scscertified.com)  
Includes a list of more than 50 cleaning products for which Scientific Certification Systems has documented the accuracy of specific environmental claims such as biodegradability and VOC (volatile organic compounds) content.
- ◆ Center for a New American Dream, [www.newdream.org/procure](http://www.newdream.org/procure)  
Contains numerous environmentally preferable purchasing resources, including copies of environmental purchasing policies from across the country, a list of environmental purchasing activities organized by topic and by state/local government, specific environmental considerations appropriate for a variety of product categories, and an incredibly extensive list of resources.