

**PROPOSED GUIDELINES AND SPECIFICATIONS FOR THE  
PROCUREMENT AND USE OF ENVIRONMENTALLY SENSITIVE  
CLEANING AND MAINTENANCE PRODUCTS FOR ALL PUBLIC AND  
NONPUBLIC ELEMENTARY AND SECONDARY SCHOOLS IN  
NEW YORK STATE**

DRAFT FOR PUBLIC COMMENT

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Attention: Guidelines and Specifications

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# **PROPOSED GUIDELINES AND SPECIFICATIONS FOR THE PROCUREMENT AND USE OF ENVIRONMENTALLY SENSITIVE CLEANING AND MAINTENANCE PRODUCTS FOR ALL PUBLIC AND NONPUBLIC ELEMENTARY AND SECONDARY SCHOOLS IN NEW YORK STATE**

## **I. OVERVIEW**

### **A. *Purpose of Guidelines***

The primary focus of this proposed process is to protect children and employee health by enabling schools to select products that clean effectively and minimize any adverse impacts on children and employee health and the environment. Even more so than adults, children are vulnerable to, and may be severely affected by, exposure to chemicals, hazardous wastes, and other environmental hazards. The United States Environmental Protection Agency (EPA) estimates that human exposure to air pollutants indoors can be two to five times, and occasionally up to 100 times, higher than outdoor levels. Children, teachers and employees spend a significant part of their lives in school buildings, which may contain harmful chemicals from cleaners, waxes, deodorizers and other maintenance products. Health concerns due to the presence of these chemicals may require schools and the State to incur substantial costs in terms of staff time and effort, cleanup costs and school closings. Discharges of chemicals from cleaning and maintenance products may also burden publicly owned wastewater treatment works, and may eventually end up in our lakes and streams.

This document recommends a mechanism for schools to select products that have comparable or superior utility (i.e. cleaning effectiveness) to products currently used in schools. The goal of using environmentally sensitive cleaning and maintenance products is to reduce, as much as possible, exposure of children and school staff to potentially harmful chemicals and substances used in the cleaning and maintenance of school facilities. This goal must work hand in hand with the requirement that cleaning products clean effectively by insuring the removal of soil from surfaces without damaging the surface and virtually leaving no soil or chemical residue.

### **B. *Intent of the Legislation***

New legislation amended the New York State Education law (409-i) and State Finance law (163-b) related to the procurement and use of environmentally sensitive cleaning and maintenance products in public and nonpublic elementary and secondary schools. The legislation requires, among other things, that the State Office of General Services (OGS) in consultation with other State agencies, establish and maintain guidelines and specifications for the procurement and use of such products and develop a list of environmentally sensitive cleaning and maintenance products.

The law is not voluntary. It is mandatory for all elementary and secondary schools in New York State to comply with this legislation.

In consultation with the State Education Department (SED), Department of Health (DOH), Department of Labor (DOL) and the Department of Environmental Conservation (DEC), OGS has reviewed and evaluated existing research regarding environmentally-sensitive cleaning and maintenance products. OGS has met or talked with representatives from the EPA, various States, consultants, vendors, environmental groups, chemical manufactures, testing laboratories, and concerned citizens concerning all aspects of “green cleaning”.

This initiative was developed with the recognition and understanding that it may well act as a catalyst for study, advancement of knowledge and changes in products and their availability. It is fully intended that adaptation will occur over time as advancements are made, new or modified products become available and product applications are better understood through usage and observation.

***C. Definition of Environmentally Sensitive Cleaning and Maintenance Products***

"Environmentally sensitive cleaning and maintenance products" are defined as cleaning and maintenance products that minimize adverse impacts on children's health and the environment, while cleaning effectively, as determined by the OGS Commissioner. Public and non public elementary and secondary schools are to use these guidelines in selecting products that are available in the “form, function and utility” currently used by schools. Cleaning and maintenance products that are the same in form, function and utility as products currently used in schools, but that have eliminated or lowered concentrations of potentially harmful chemicals, are increasingly being developed and are available in the marketplace.

***D. Relationship to Executive Order #134***

OGS is also responsible for implementing Executive Order #134, which requires all State Executive agencies to adopt environmentally preferred cleaning products. We plan to share these guidelines and specifications, along with a list of green cleaning products, with all State Executive agencies.

**II. CHARACTERISTICS OF GREEN CLEANING PRODUCTS**

The term green cleaning is synonymous with environmentally sensitive cleaning. These terms are often used interchangeably to describe cleaning and maintenance products that protect human health and the environment without sacrificing product effectiveness. The program described herein will allow New York State schools to select cleaning products from an approved list or eventually from a New York State green cleaning product contract and provide users with an opportunity to try a variety of “green cleaning products”. This will also provide schools with an opportunity to deplete existing cleaning supplies and replace them with more environmentally sensitive alternative products.

**The following criteria, which focus solely on some of the health and environmental attributes of green cleaning , were developed by Green Seal, Inc. They are meant as**

**an overview of the health and environmental characteristics that make a cleaning product environmentally sensitive or green. Please see Appendix #3 for a more detailed explanation.**

1. The undiluted compound shall not be hazardous to humans.
2. The undiluted product shall not contain any ingredients that are carcinogens or that are known to cause reproductive toxicity.
3. The undiluted product shall not be a skin sensitizer as tested by the Organization for Economic Co-operation and Development (OECD).
4. The undiluted product shall not be corrosive to the skin or eyes. Dispensing system concentrates shall be tested as used.
5. The undiluted product shall not be combustible.
6. The product as used shall not contain substances that contribute significantly to the production of photochemical smog, tropospheric ozone, or poor indoor air quality.
7. The product as used shall not be toxic to aquatic life.
8. Each of the organic ingredients in the product as used shall exhibit ready biodegradability in accordance with OECD definition except for a Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)-registered ingredient in a bathroom cleaner and the polymer portion of a carpet cleaner. However, all other ingredients in a FIFRA-registered bathroom cleaner or carpet cleaner must comply.
9. The product as used shall not contain more than 0.5% by weight of total phosphorus.
10. The primary packaging shall be recyclable. Alternatively, manufacturers provide for returning and refilling of their packages
11. The product must be a concentrate, except for FIFRA-registered bathroom cleaners and absorbent compound carpet cleaners.
12. Manufacturers shall identify any fragrances on their material safety data sheets (MSDS's). Manufacturers shall identify any fragrances on their MSDS's. Any ingredient added to a product as a fragrance must follow the Code of Practice of the International Fragrance Association.
13. Prohibited ingredients include:
  - Alkylphenol ethoxylates
  - Dibutyl phthalates
  - Heavy metals including arsenic, lead, cadmium, cobalt, chromium, mercury, nickel or selenium.
  - Ozone-depleting compounds
  - Optical brighteners

### **III. BEST CLEANING MANAGEMENT PRACTICES**

The foundation of an effective environmentally sensitive cleaning program is built on using the best methods, the most effective practices and equipment, and selecting cleaning products that work effectively, and minimizing adverse impacts on children's health and the environment. As part of the effort to identify appropriate cleaning products and services needed in schools, the following concepts have been developed that

outline various cleaning concerns. Each of these practices may be applied to specific cleaning needs.

***A. Reduce the need to clean. Prevent, to the extent possible, soil and other contaminants from entering the facility.***

Effective entrance floor matting systems can remove significant quantities of dirt from foot traffic entering a facility. Matting protects floors by stopping moisture and dirt at the door, makes floors easier to clean, and makes floors safer by reducing slipping.

***B. Follow instructions and precautions provided by the manufacturer.***

All products should be used following instructions or precautions provided by the manufacturer. Carefully follow the instructions for diluting the product before use. Using more product than recommended can result in damage to surfaces being cleaned and/or will produce a residue. Germicides must be left on the surface for the time specified on the product label for it to be effective. Carefully follow mixing precautions. Some products can produce hazardous gases if they are mixed with other products.

***C. Clean first, then only use a germicide if needed.***

1. First and foremost, a residue-free and clean surface is a top priority.
2. Clean first, then *disinfect* or sanitize only when and where necessary. Surfaces must be cleaned thoroughly, whether or not disinfectants are used.
3. If any product claims to be a disinfectant or sanitizer, then **IT MUST BE REGISTERED BY Department of Environmental Conservation** as an approved antimicrobial product. OGS will require the manufacturer to submit the "Certificate of Pesticide Registration" for any product that claims to be a sanitizer or disinfectant in order to be listed or included on contract by OGS. Consumers can also check the joint Cornell-DEC website listing of registered pesticides to confirm registration of specific products at <http://pmep.cce.cornell.edu/pims/>.
4. If a school decides to use a disinfectant, it is essential that specific procedures, label directions and training be followed prior to its application.

***D. Purchase quality floor finishes.***

1. A quality floor finish must handle wear and tear, require minimal burnishing, not powder easily and last without stripping for at least 3 years. Floors in some schools have reached 5-10 or more years without needing to be stripped.
2. A quality floor finish results in the easier removal of soil by dust mopping, followed by use of a quality cleaner on a daily basis to remove any remaining soil without leaving left behind soil or chemical residue. This minimizes the proliferation of dust, dirt, germs, molds, and other particulate matter that gets caught in poor quality flooring. Eventually, this type of residue often circulates

throughout a school heating, ventilation, and air conditioning (HVAC) system, causing potential asthmatic and other health concerns for children.

3. Mopping detergents must be cold water formulated, free-rinsing, and leave virtually no soil or chemical residual after use. The use of a quality floor finish used properly in unison with a quality detergent, produces a clean surface generally free of potentially airborne soils and germs.

***E. Use cold water.***

1. Schools should use the most environmentally sensitive general purpose soil cleaners, carpet cleaners, and bathroom cleaners that clean effectively in cold water.
2. Hot water melts and spreads soils that are not dissolvable by water (grease, oil, fat, etc.) and those soils are likely to cling to the colder surface being cleaned, such as the carpet. If the surface is not rinsed properly before it is allowed to dry, other soil particulates in the cleaning solution will also cling to the carpet causing a “left behind soil” residue.
3. Products that have been certified by Green Seal, Inc. are designed to work with cold water.
4. Hot water requires the use of a heat source, which is a waste of energy resources. The use of cold water saves money and reduces labor and energy consumption.

***F. Vacuum carpets frequently prior to considering the use of any carpet cleaning products.***

1. Carpets which are vacuumed regularly contain significantly less dirt, dust, and food residue. A regular carpet vacuuming routine will reduce the need for chemical and/or water-based shampoo extraction products.
2. The cleaner the carpet, the more sanitary the results.
3. Investigate companies that produce low or no Volatile Organic Compounds (VOC's) carpeting and padding.
4. Carpet cleaning detergents must penetrate through the soil and around the fibers to prepare the soil for easy release. There are two types of carpet cleaning:
  - a. **Surface Cleaning – Bonnet**  
Sprayed on with either a very low-diluted (as compared to Deep Cleaning dilution rate) carpet pre-treat chemical or a general purpose detergent diluted as for wet mopping. Follow manufacturer's directions on the use of bonnet.
  - b. **Deep Cleaning**  
Use products with pressure-injecting and extraction machine for use on severely or deeply soiled carpets. Rotary machine brush shampooing may be performed after pre-treating and before injection/extraction. (Use of cold water for the injection/extraction process is recommended for the same reasons as with floor care – cold water pulls the soil away from the carpet fibers.)

***G. Investigate the use of new cleaning technologies.***

1. The use of microfiber cloths and mops, multilevel walk-off mats, two chamber cleaning buckets, HEPA-filter vacuums, carpet extractors, glide pads on chairs and desk legs, the proper grade floor polishing pads and floor stripping pads, and other advances in cleaning equipment should be investigated.
2. Costs should be weighed against the benefits to cleaning and health. A number of these products may already be available from preferred sources at the following link <http://www.ogs.state.ny.us/procurecounc/pdfdoc/psguide.pdf> and/or the industrial supplies contract, and/or a specific contract.

***H. Ensure all custodial and maintenance personnel are properly trained.***

1. Training may involve a supplier or manufacturer representative demonstrating the proper use of a product and fielding questions.
2. Cleaning products require effective training and application to ensure optimum results. The product manufacturer, its distributor, or a third party shall offer training or training materials, ie. Videos, written materials, in the proper use of products. Training shall include step-by-step instructions for the proper dilution, disposal and use of cleaning equipment. A product-labeling system should also be utilized to assist non-English speaking personnel.
3. Schools should participate in vendor training or provide their own training to staff to ensure that products are used properly.

***I. Leave virtually no residue***

1. Cleaning products should virtually leave no soil residue when used on a daily basis and therefore will not require a rinse step. Detergents that leave a considerable residue are unsanitary or force the need for an additional step of a fresh water rinse. A second step wastes time and water resources.

**IV. CONSULTING TO DEVELOP ADVANCED CUSTODIAL PRACTICES**

A separate bid will be issued for the “Consulting to Develop Advanced Custodial Cleaning Practices”. Professional consulting companies may offer “Consulting to Develop Advanced Custodial Cleaning Practices” to help enhance a custodial department’s systems and reinforce the logic not to use a product until custodial staff understand the basics of proper cleaning practices. This will be a **voluntary** opportunity for all public and nonpublic elementary and secondary schools in the state to use to their advantage. Ideally, this consulting should occur prior to the purchase of the cleaning products. Then, armed with the benefits of enhanced systems and restructured information, a basic understanding of pH, costs of labor vs. costs of products, and the chemicals staff are empowered to use, a more educated and informed decision can be made concerning the type of products needed and how best to use them. In addition, a good consulting program must focus on the psychological side of managing people, communication, interpersonal skills, motivation, and understanding change. Considering that most cleaning budgets are probably about 5-10% product, and 90-95% labor costs,

and one can appreciate the importance of understanding and motivating staff. Consulting needs to be a combination of on-site training and distance learning.

## V. DESIGNATION OF APPROVED PRODUCTS

### A. *Basic Strategy*

- OGS has been guided by the principles for environmentally preferable purchasing described by the EPA and identified by the Green Seal, Inc. certification process (See: [www.greenseal.org/standards/g37.pdf](http://www.greenseal.org/standards/g37.pdf)) as generally meeting the intent of this legislation to help schools select environmentally sensitive cleaning and maintenance products. **To enhance information available to purchasers about the efficacy of products, OGS will require testing data for efficacy that will be published for each product on the list.**

### B. *Selection of Approved Environmentally Sensitive Cleaning Products*

OGS will require any vendor/company wishing to be added to an approved list of environmentally sensitive cleaning and maintenance products to comply with the following (listed 1-7 below):

#### 1. *Green Seal, Inc. GS-37:*

OGS is adopting Green Seal, Inc., GS-37 for industrial and institutional cleaners. The GS-37 criteria applies to General Purpose Cleaners, Bathroom Cleaners, Carpet Cleaners and Glass, Window and Mirror Cleaners. (See Section VI for definitions of product categories, and Appendix 3 for GS-37.)

- Companies with products that have Green Seal Inc. certification (GS-37) for General Purpose Cleaners; Bathroom Cleaners; Carpet Cleaners and Glass, Window and Mirror Cleaners must submit such documentation.
- Companies must submit their efficacy test scores for each product based on the Green Seal ASTM testing.
- Companies must submit the costs for each product (cost per gallon of diluted wash solution per product usage recommendation)
- Companies submitting Green Seal certification, efficacy scores for specific products and costs, will be placed on the New York State sample list of Environmentally Sensitive Cleaning Products showing their costs and efficacy ratings.
- Companies that do not have Green Seal certification for a specific product in the cleaning categories mentioned above, but can prove they meet Green Seal Inc. standards, must:
  - a. Submit a signed affidavit (See Appendix #1) stating that they meet Green Seal Inc. GS-37 standards.
  - b. Submit the actual efficacy test from a certified lab stating they used the same ASTM testing standards and soils as the Green Seal Inc. efficacy tests.
  - c. Products meeting a. and b. above will be placed on the New York State sample list of Environmentally Sensitive Cleaning Products showing their

costs (per gallon of diluted wash solution per product usage recommendation) and efficacy ratings.

- d. Companies must submit the same documentation of their own testing results that they would have provided for Green Seal Inc. certification.
  - e. Products may randomly be tested by an independent laboratory to verify such claims.
  - f. Products found not to meet these requirements, will be removed from the list of approved or accepted products.
- For any product that claims on its label or in its advertising to sanitize or disinfect, companies must submit the NYSDEC “Certificate of Pesticide Registration” to appear on OGS’s list of approved cleaning products. Only Bathroom Cleaners will be permitted to carry these claims, as the GS-37 standard does not permit products making such claims to be listed as a general-purpose or glass cleaner.

## ***2. Green Seal, Inc. GS-41:***

OGS is adopting the Green Seal, Inc. proposed standard (GS-41) for Hand Soaps. (See Section VI for definition of product categories, and Appendix #4 for GS-41)

- Companies meeting GS-41 must submit their Green Seal, Inc. certification documentation along with cost information, from which an approved list will be developed.
- Companies that do not have GS-41 certification, but can prove they meet the standard, must submit a signed affidavit (See Appendix #1) stating that they meet Green Seal, Inc. GS-41 standards.
  - a. Companies must submit the same documentation of their own testing results that they would have provided for Green Seal Inc. certification.
  - b. Companies must submit the costs for the product.
  - c. Products may randomly be tested by an independent laboratory to verify such claims.
  - d. Products found not to meet these requirements, will be removed from the list of approved or accepted products.

## ***3. Green Seal, Inc. GS-09:***

OGS is adopting the Green Seal, Inc. standard (GS-09) for Paper Towels and Paper Napkins (**See Section VI for definition of product categories, and Appendix #5 for GS-09**).

- Companies meeting GS-09 must submit their Green Seal, Inc. certification documentation along with cost information, from which an approved list will be developed.
- Companies that do not have GS-09 certification, but can prove they meet the standard, must submit a signed affidavit (See Appendix #1) stating that they meet Green Seal, Inc. GS-09 standards.
  - a. Companies must submit the same documentation of their own testing results that they would have provided for Green Seal Inc. certification.
  - b. Companies must submit the costs for the product.

- c. Products may randomly be tested by an independent laboratory to verify such claims.
- d. Products found not to meet these requirements, will be removed from the list of approved or accepted products.

#### ***4. Green Seal, Inc. GS-01:***

OGS is adopting the Green Seal, Inc. standard (GS-01) for Tissue Paper. (See Section VI for definition of product categories, and Appendix #6 for GS-01)

- Companies meeting GS-01 must submit their Green Seal, Inc. certification documentation along with cost information, from which an approved list will be developed.
- Companies that do not have GS-01 certification, but can prove they meet the standard, must submit a signed affidavit (See Appendix #1) stating that they meet Green Seal, Inc. GS-01 standards.
  - a. Companies must submit the same documentation of their own testing results that they would have provided for Green Seal Inc. certification.
  - b. Companies must submit the costs for the product.
  - c. Products may randomly be tested by an independent laboratory to verify such claims.
  - d. Products found not to meet these requirements, will be removed from the list of approved or accepted products.

#### ***5. Vacuum Cleaner Requirements***

OGS is adopting the Carpet and Rug Institute Green Label standard for vacuum cleaners and list products meeting this standard.

Companies meeting the following Carpet and Rug Institute Green Label standard must submit their certification documentation along with cost information, from which an approved list will be developed.

To qualify for the Green Label, these vacuums must go through a stringent testing process that measures three key performance factors:

- **Soil Removal** — The vacuum must remove a set quantity of soil from carpet in four passes
- **Dust Containment** — The vacuum must not release more than 100 micrograms of dust particles per cubic meter of air. This protocol evaluates the total amount of dust particles released by the brush rolls, through the filtration bag and via any air leaks from the system, and is more stringent than the National Ambient Air Quality Standards.
- **Carpet Appearance Retention** — The vacuum should not affect the appearance of the carpet more than a one-step change based on one year of normal vacuum use.

## ***6. Floor Protection Requirements***

At this time, New York State is **not** adopting the Green Seal, Inc. standard for floor finishes, wax/finish strippers, or spray burnishing gloss restorer liquids (GS-40). Floors constitute the single largest area of cleaning in a school. Floors that require frequent burnishing, and/or powder easily, and/or need to be stripped frequently, can contribute significantly to indoor air pollution from airborne germ-laden particulates or to environmental pollution by unnecessary floor finish stripping effluence. Therefore, it is essential that floors are protected by a quality finish that is both easy to clean and can stand the rigors of day to day traffic.

Since health and safety, environmental impact, and labor costs are primary concerns, we remain committed to encouraging the use of floor finishes that can withstand severe abuse without having to be stripped for 3 or more years and floor strippers that are able to completely lift old wax or finish almost instantly. Durability and speed enables custodians to perform the task infrequently with minimal exposure to the perils of slippery and odorous stripping solutions. Because the job of floor stripping and refinishing should be performed when classes are not in session, many potential health risks are reduced to children, school staff and visitors. While substantial work has been done by a variety of manufacturers to develop “green” or environmentally sensitive floor finishes and floor strippers, we do not want to abandon proven accomplishments by requiring the use of products that have not stood the test of time. OGS first wants to see the results of using “green” floor finish/stripper system products over a period of time. Once it has been proven that “green” floor protection products perform equal to or better than the best of what is presently available, OGS can reevaluate these guidelines.

Companies wishing to qualify their floor finish products for inclusion on the approved State list must do the following:

Submit signed OGS certification forms (Appendix #4), from **3 different educational facility customers**, who attest to the fact that:

- They have been and continue to use the floor finish in a heavily trafficked area;
- They have been maintaining the floor according to manufacturer’s instruction for 3 years or more in a heavily trafficked area without having to strip the floor finish back to the bare flooring;
- The floor finish retains its shine when burnished as little as once a month.
- **AND** that the floor finish virtually does not powder when burnished.

OGS will place products meeting such standards on a list of approved floor finish products along with their cost information.

## **7. Other Considerations**

In order to promote the use of high performance cleaning products that adequately meet the performance needs of school environments, products approved for the OGS list may be required to undergo additional product efficacy testing after the first year of this program, as determined by OGS. OGS may also address disinfectants and hand sanitizers in further detail at that time.

### **C. *These guidelines and specifications apply to the following environmentally sensitive cleaning and maintenance products:***

- **General Purpose Cleaners**
- **Bathroom Cleaners**
- **Carpet Cleaners**
- **Glass, Windows, and Mirror Cleaners**
- **Vacuum Cleaners**
- **Hand Soaps**
- **Custodial Paper Products**
- **Floor Finishes and Floor Strippers**

## **VI. CLEANING PRODUCT CATEGORIES AND DEFINITIONS**

### **A. GENERAL PURPOSE CLEANERS**

This category includes products used for routine cleaning of hard surfaces including impervious flooring such as concrete or tile. It does not include cleaners intended primarily for the removal of rust, mineral deposits, or odors. It does not include products intended primarily to strip, polish, or wax floors, and it does not include cleaners intended primarily for cleaning toilet bowls, dishes, laundry, glass, carpets, upholstery, wood, or polished surfaces. This category does not include any products required to be registered under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), such as those making claims as sterilizers, disinfectants, or sanitizers.

Examples of types of soil they need to clean – petroleum products, vegetable oils and grease, animal fats and butter, sand, sugar and dirt tracked in from outside, normally low pH soils.

### **B. BATHROOM CLEANERS**

This category includes products used to clean hard surfaces in a bathroom such as counters, walls, floors, fixtures, basins, tubs, and tile. It includes products that are required to be registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), such as disinfectants and sanitizers, but does not include products specifically intended to clean toilet bowls.

*All disinfectants must have appropriate DEC pesticide registration.*

Examples of types of soil on toilets, urinals, sinks and fixtures, shower fixtures, drinking fountains, bathroom and shower walls, minerals deposits, shower floors include (but are not limited to):

- Feces, urine, and soap scum with lanolin and body oils.
- Mineral deposits found in water.

### ***C. CARPET CLEANERS***

This category includes products used for routine cleaning of carpets and rugs. This category may include, but is not limited to, products used in cleaning by means of extraction, shampooing, dry foam, bonnet or absorbent compound. It does not include products intended primarily for spot removal. This category does not include any products required to be registered under FIFRA, such as those making claims as sterilizers, disinfectants, or sanitizers.

- Carpets can absorb pesticides that are tracked into a building, dust from any source, such as floor burnishing, pet dander, cleaning products used to clean the carpet, moisture/water, and mold and mildew.
- The cleaner the carpet, the more sanitary the results. Carpet cleaning detergents must penetrate through the soil and around the fibers to prepare the soil for easy release.
- The goal is to REMOVE ALL SOIL from a carpet because left behind soil in a carpet makes effective vacuuming difficult, speeds the collection of new soil, holds moisture, slows carpet drying and accelerates the increase of germs and mold.

### ***D. GLASS, WINDOW, MIRROR CLEANERS***

This category includes products used to clean windows, glass, and polished surfaces. This category does not include any products required to be registered under FIFRA, such as those making claims as sterilizers, disinfectants, or sanitizers.

Examples of type of soil on glass, windows and mirrors include (but are not limited to):

- Petroleum products, vegetable oils and grease, animal fats and butter.

### ***E. VACUUM CLEANERS***

**High performance vacuum cleaners have a significant impact on improved indoor air quality (IAQ).** At the same time, vacuums that effectively remove and contain soil while keeping the carpet looking good will help carpets last longer. So, ultimately, better performing vacuums provide a greater return on your investment and ensure a healthier indoor environment.

Recognizing the need to identify superior cleaning equipment, CRI introduced its Green Label Testing Program for vacuum cleaners in 2000. This program tests two general categories of vacuums: **a)** general purpose vacuums approved for use on all

conventional carpet styles; and **b)** vacuums specifically approved for use on carpet with a low pile, or surface texture, measuring approximately 1/4 inch or less.

## ***F. HAND SOAPS***

Hand soaps are designed to remove both organic and inorganic soil from skin. Industrial products are found in garages, print shops, and other industrial settings. Institutional products may also be found in public washrooms of restaurants, retail, schools and other public buildings.

Hand soaps encompass a large consumable item with some specific health and environmental implications. New York State is avoiding the use of hand soaps with anti-bacterial additives since the Center for Disease Control (CDC) recognized that they do NOT add to the protection of public health in general hand washing circumstances, and the environmental community is concerned about the effect these biocides might have once they enter the environment.

## ***G. PAPER PRODUCTS: PAPER TOWELS AND TOILET TISSUES***

This category includes bathroom tissue, facial tissue, paper towels and napkins.

Significant strides have been made to develop paper products that use recycled paper, reduced packaging, reduced changeouts/labor and in some cases remove the cardboard core, and yet they are still highly absorbent and strong. The combination of the above characteristics with the proper dispensing systems can make them cost effective compared with traditional products.

## ***H. FLOOR FINISHES AND FLOOR STRIPPERS***

At this time, New York State will not adopt the Green Seal, Inc. standard for floor finish and floor strippers (GS-40). While substantial work has been done by a variety of manufacturers to develop a “green” or environmentally sensitive floor finish, we want to see some of the results of using these finishes over time, and that can only realistically be obtained by experience. **Floors constitute the single largest area of cleaning in a school.** Floors that require frequent burnishing, and/or powder easily, and/or need to be stripped frequently, can contribute to indoor air pollution from airborne germ-laden particulates. It can also cause environmental pollution by unnecessary floor finish polymers and “wax” stripping sludge effluence “going down the drain” and ending up in our sewer treatment systems and/or waterways. Therefore, it is essential from a human health and environmental standpoint that floors are protected by a quality finish that is both easy to clean and can stand the rigors of day to day traffic. Quality floor finishes, which are properly applied and maintained, help lower children’s exposure to indoor air pollution and reduce water pollution.

This category is composed of products that provide temporary/removable floor protection by the use of Floor Finish/Sealers as follows:

- Resilient Floor Coverings – Vinyl Tile, Sheet Goods (Linoleum)

- Hard Surfaces – Concrete, Terrazzo, Stone, Fired Tile, Marble, Slate

This category also includes floor strippers:

- Floor Strippers: There are two types of strippers based on the floor dressings being removed or stripped.
  1. **Waxes or natural products** – Some can remove polymers, but the stripping job will take much longer than do **liquefiers** developed for polymers.
  2. **Polymers or synthetic products** – **Liquefiers** were developed to break up and lift polymers and work just as quickly for removing waxes and natural products. (These floor strippers may be used on many floor surfaces, such as terrazzo, marble, resilient dimensional tile and sheet floor coverings, finished synthetic wood flooring, poured liquid flooring, stone, etc.

## VII. REPORTING REQUIREMENTS

**The legislation requires that “On or before June 1, 2007, the department (SED), in consultation with OGS, issue a report providing an analysis of the impact of these guidelines and specifications on the purchasing, procurement, and use of environmentally sensitive cleaning and maintenance products by elementary and secondary schools.”**

**VIII. APPENDICES**

**A. APPENDIX #1**

**MANUFACTURER’S AFFIDAVIT OF ENVIRONMENTALLY SENSITIVE PRODUCT STANDARDS\***

STATE OF \_\_\_\_\_ )  
 ) ss.  
 COUNTY OF \_\_\_\_\_ )

I \_\_\_\_\_ of \_\_\_\_\_  
NAME COMPANY NAME

being duly sworn depose and say that the product(s) listed below are manufactured to meet and/or exceed environmentally sensitive product standards. Please fill in the table shown below. If necessary, attach additional sheets. **Also, please provide documentation verifying Green Seal, Inc. Certification, or documentation of testing methods that are equivalent to those used in Green Seal, Inc. Certification, for product(s) submitted.**

PRODUCT NAME	PRODUCT APPLICATION(S)	GREEN SEAL, INC. CERTIFIED (Yes/No)	GREEN SEAL INC., CERTIFICATION STANDARDS (Meets/Exceeds)	NAME OF LAB AND SCIENTIST WHO PERFORMED TESTING, IF NOT GREEN SEAL INC., CERTIFIED

It is agreed that representatives of the New York State Office of General Services, Procurement Services Group shall have access to purchase and production records upon reasonable notice during working hours for the purpose of verifying that the product information, as well as any certification and/or environmentally sensitive product standards information you are furnishing New York State is accurate.

**I/we understand that, should a determination be made that false information was knowingly submitted or omitted as part of this affidavit, it will result in immediate disqualification of your response and may result in your product(s) not being considered in the future.**

Name of Manufacturer: \_\_\_\_\_

Address: \_\_\_\_\_

Signature of Manufacturer's Representative: \_\_\_\_\_

Official Title: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Dated: \_\_\_\_\_

THIS AFFIDAVIT SHALL REMAIN IN EFFECT FOR A PERIOD OF TWO YEARS UNLESS REVISED OR WITHDRAWN BY THE CERTIFYING MANUFACTURER.

**\*THE AFOREMENTIONED INFORMATION VERIFIES THAT YOUR PRODUCT(S) MEET AND/OR EXCEED ENVIRONMENTALLY SENSITIVE PRODUCT STANDARDS\***

**B. APPENDIX #2**

**CUSTOMER’S/BUSINESS’ CERTIFICATION THAT MANUFACTURER’S FLOOR FINISH PRODUCT(S) MEET NYS OGS’S REQUIRED STANDARDS\***

STATE OF \_\_\_\_\_ )  
 ) ss.  
 COUNTY OF \_\_\_\_\_ )

I \_\_\_\_\_ of \_\_\_\_\_  
 NAME CUSTOMER/BUSINESS NAME

attest that the floor finish product(s) listed below meet NYS OGS standards for inclusion on the approved State listing of floor finish products. Please fill in the table shown below.

<b>PRODUCT NAME</b>	<b>HAVE USED AND WILL CONTINUE TO USE PRODUCT IN HEAVILY TRAFFICKED AREA(S)</b>  (Yes or No)  (If yes, specify area e.g. main building entrance hall etc.)	<b>⊕FLOOR FINISH HAS LASTED FOR AT LEAST (3) YEARS (IN A HEAVILY TRAFFICKED AREA) WITHOUT STRIPPING</b>  (Yes or No)	<b>FLOOR FINISH RETAINS SHINE WHEN BURNISHED AS LITTLE AS ONCE A MONTH</b>  (Yes or No)	<b>FLOOR FINISH VIRTUALLY DOES NOT POWDER WHEN BURNISHED PROPERLY</b>  (Yes or No)

**⊕Please Note: The customer/business is certifying to the fact that they have maintained the floor according to manufacturer’s instructions for 3 years or more, without having to strip the floor finish back to the bare flooring.**

**COMMENT SECTION: (If necessary, please use this section, or attach an additional sheet to clarify your responses to any of the above listed questions)**

Name of Customer/Business: \_\_\_\_\_

Address: \_\_\_\_\_

Signature of Customer/Business Representative: \_\_\_\_\_

Official Title: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Dated: \_\_\_\_\_

**\*THE AFOREMENTIONED INFORMATION PROVIDED IN THIS CUSTOMER CERTIFICATION ATTESTS THAT THE PRODUCT(S) LISTED ABOVE MEET NYS OGS'S REQUIRED STANDARDS FOR FLOOR FINISH PRODUCTS.**

\* \* \* \* \*

### C. APPENDIX # 3

#### **ENVIRONMENTAL/HEALTH CRITERIA FOR CLEANING PRODUCTS (Green Seal Inc., GS-37 for Industrial and Institutional Cleaners)**

**The following criterion applies to General Purpose Cleaners, Bathroom Soil Cleaners, Carpet Cleaners, and Glass/Window/Mirror Cleaners**

1. The undiluted compound shall not be hazardous to humans (as defined below).
  - Dispensing-system concentrates shall be tested as used.
  - A product is considered hazardous if any of the following criteria apply:
    - Oral lethal dose 50 (LD<sub>50</sub>) < 2,000 mg/kg
    - Inhalation lethal concentration (LC<sub>50</sub>) < 20 mg/L\*
    - If the vapor-phase concentration of the product at room temperature is less than 20 mg/L, it should be tested at its saturation concentration. If it is not toxic at this concentration, it passes the inhalation criterion.
    - Toxicity shall be measured on the product as a whole. Alternatively, a mixture need not be tested if existing toxicity information demonstrates that each of the ingredients complies.
    - Ingredients that are nonvolatile do not require inhalation toxicity testing
    - It is assumed that the toxicity of the individual component compounds are weighted and summed and that there are not synergistic effects
    - The toxicity testing procedures should meet the requirements put forth by the Organization for Economic Cooperation and Development (OECD) Guidelines for Testing of Chemicals. These protocols include Acute Oral Toxicity Test (TG 401), Acute Inhalation Toxicity Test (TG 403), and Acute Dermal Toxicity Test (TG 402).
2. The undiluted product shall not contain any ingredients that are carcinogens or that are known to cause reproductive toxicity.
  - Carcinogens are defined as those chemicals listed as known, probable, or possible human carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), the U.S. Environmental Protection Agency, or the Occupational Health and Safety Administration.
  - Chemicals known to cause reproductive toxicity are defined as those listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (California Code of Regulations, Title 22, Division 2, Subdivision 1, Chapter 3, Sections 1200, *et seq.*).

- Naturally occurring elements and chlorinated organics, which may be present as a result of chlorination of the water supply, are not considered ingredients if the concentrations are below the applicable maximum contaminant levels in the National Primary Drinking Water Standards found in 40 Code of Federal Regulations (CFR) Part 141.
- 3. The undiluted product shall not be a skin sensitizer as tested by the OECD
  - Guidelines for Testing Chemicals, Section 406. Dispensing-system concentrates shall be tested as used. Green Seal shall also accept the results of other standard test methods, such as those described in Buehler (1994) or Magnusson and Kligman (1969), as proof that the product or its ingredients are not skin sensitizers
- 4. The *undiluted* product shall not be corrosive to the skin or eyes. Dispensing system concentrates shall be tested as used.
  - The undiluted cleaning product shall not be corrosive to the skin, as tested using the Human Skin Construct systems (Liebsch et al. 2000; Fentem et al. 1998).
  - The undiluted cleaning product shall also not be corrosive to the eye as tested using the bovine opacity and permeability test (BCOP) (Sina et al. 1995) after a 10-minute exposure.
  - Green Seal will also accept the results of other peer reviewed or standard in vitro or in vivo test methods demonstrating that the product mixture is not corrosive.
- 5. The undiluted product shall not be combustible.
- 6. The product as used shall not contain substances that contribute significantly to the production of photochemical smog, tropospheric ozone, or poor indoor air quality.
  - The volatile organic content of the product as used shall not exceed the following
    - 0.1% by weight for carpet cleaners
    - 1% by weight for general-purpose and bathroom cleaners
    - 3% by weight for glass cleaners
    - The volatile organic content shall be determined by California Air Resources Board Method 310.
- 7. The product as used shall not be toxic to aquatic life.
- 8. Each of the organic ingredients in the product as used shall exhibit ready biodegradability in accordance with OECD definition except for a FIFRA-registered ingredient in a bathroom cleaner and the polymer portion of a carpet cleaner. However, all other ingredients in a FIFRA-registered bathroom cleaner or carpet cleaner must comply.
  - Biodegradability shall be measured by one of the following methods: ISO 9439 carbon dioxide (CO<sub>2</sub>) evolution test, ISO 10708 (two-phase closed-

bottle test), ISO 10707 (closed bottle test), or ISO 7827 (dissolved organic carbon removal). Specifically, within a 28-day test, the ingredient shall meet one of the following criteria within 10 days of the time when biodegradation first reaches 10%:

- Removal of dissolved organic carbon (DOC) > 70%
  - Biological oxygen demand (BOD) > 60%
  - % of BOD of theoretical oxygen demand (ThOD) > 60%
  - % CO<sub>2</sub> evolution of theoretical > 60%
- For organic ingredients that do not exhibit ready biodegradability in these tests, the manufacturer may demonstrate biodegradability in sewage treatment plants using the Coupled Units Test found in OECD 303A by demonstrating dissolved organic carbon (DOC) removal > 90%.
  - Testing is not required for any ingredient for which sufficient information exists concerning its biodegradability, either in peer-reviewed literature or databases or proving that the ingredient was tested in accordance with standard test procedures.
9. The product as used shall not contain more than 0.5% by weight of total phosphorus.
10. The primary packaging shall be recyclable. Alternatively, manufacturers may provide for returning and refilling of their packages.
11. The product must be a concentrate, except for FIFRA-registered bathroom cleaners and absorbent compound carpet cleaners.
12. Manufacturers shall identify any fragrances on their MSDS's. Any ingredient added as a fragrance must follow the Code of Practice of the International Fragrance Association.
13. Prohibited ingredients include:
- Alkylphenol ethoxylates
  - Dibutyl phthalates
  - Heavy metal including arsenic, lead, cadmium, cobalt, chromium, mercury, nickel or selenium.
  - Ozone-depleting compounds
  - Optical brighteners

## ***D. APPENDIX #4***

### **HAND SOAP (GS-41)**

Certification under Green Seal and the Environmental Choice Program will be awarded to hand cleaners that demonstrate environmental leadership throughout their life-cycle and meet requirements for:

- performance;
- limited toxicity for aquatic and other organisms, including both acute/lethal toxicity and chronic/sublethal toxicity risks (e.g. endocrine disruption, carcinogens);
- biodegradability;
- limits on ingredients that are considered likely to contribute to specific environmental and health impacts (e.g., indoor air quality, ground-level ozone-formation, skin irritation); and
- limited waste and resource use.

#### **Product Specific Requirements**

To be authorized to carry the EcoLogoM and Green Seal® the **hand cleaner** must:

- (a) demonstrate efficacy against a control
- (b) not be a skin sensitizer, as tested by the OECD Guidelines for Testing Chemicals, Section 406. The results of other standard test methods, such as those described in Buehler (1994) or Magnusson and Kligman (1969), may also be accepted as proof that the product or its ingredients are not skin sensitizers. If a product contains a known skin sensitizer at or above a concentration of 0.1%, then the product as a whole shall be considered a skin sensitizer, except where explicit data demonstrate that it is not a skin sensitizer.
- (c) not be a skin irritant, as tested by the OECD Guidelines for Testing Chemicals, Section 404. If a product contains a known skin irritant at or above a concentration of 5%, then the product as a whole shall be considered a skin irritant, except where explicit data demonstrate that it is not a skin irritant.
- (d) be accompanied by detailed instructions for proper use to maximize product performance and minimize waste;
- (e) not be packaged in bag in box packaging;
- (f) be packaged in recyclable packaging. An exception may be made for lightweight flexible packaging (e.g., pouches or bags) that represent a significant (at least 30X less plastic per volume of product) reduction in material use when compared with rigid packaging;
- (g) as demonstrated by the due diligence of the manufacturer efforts have been made to ensure packaging with post-consumer recycled content;
- (h) not be formulated with antibacterial ingredients nor make antibacterial, disinfecting, antiseptic or sanitizing product claims (e.g., the product must be free from the need to register under Health Canada's Therapeutic Products Directorate or require a Drug Identification Number (DIN) or the need to be registered under the United States Federal Insecticide, Fungicide, and Rodenticide Act;)
- (c) not be formulated or manufactured with phosphates;
- (d) not be formulated or manufactured with NTA;

- (e) not be formulated or manufactured with EDTA;
- (f) not be formulated or manufactured with APEOs;
- (g) not be formulated or manufactured with halogenated organic solvents;
- (h) not be formulated or manufactured with butoxy-ethanol;
- (i) declare any fragrances on the product label and on material safety data sheets. Fragrances shall have been produced or handled following the code of practice of the International Fragrance Association
- (h) not contain volatile organic compounds in excess of the limits expressed in the table below as measured by EPA Method 24-24A, 40 C.F.R., Part 60, Appendix A (1991), or Method 18, 48 Federal Register 48, no. 202, October 18, 1983, or Method 1400 NIOSH Manual of Analytical Methods, Volume 1, February 1984, or Environmental Protection Agency Method 8240 GC/MS Method for Volatile Organics, September 1986, or California Air Resources Board Method 310; or as demonstrated through calculation from records of the amounts of constituents used to make the product.

**Industrial Heavy Duty Hand Cleaners 8%**

**Institutional Hand Cleaners 1%**

- (j) not be formulated or manufactured with any chemicals that are included in the International Agency for Research on Cancer (IARC) lists for proven (Group 1), probable (Group 2A), or possible (Group 2B) carcinogens;
- (j) be readily biodegradable as determined by whole formulation testing In lieu of such data, evidence on the ready biodegradability of each component will be accepted if consistent tests have been applied for each component; and
- (k) based on a 1:200 dilution of the product, not be toxic to aquatic life defined as  $IC_{50} > 1000$  mg/L as measured by whole formulation short-term sensitive toxicity test performed on the bacteria *Photobacterium phosphoreum*. Aquatic toxicity shall be measured by one of the following test methods: *Biological Test Method: Toxicity Test Using Luminescent Bacteria (Photobacterium phosphoreum)*, Report EPS 1/RM/24, November 1992, Environment Canada, ASTM D5660-96 or ISO 11348.

***E. APPENDIX # 5***

**PAPER TOWELS AND PAPER NAPKINS (GS-09)**

**Product Specific Performance Requirements**

**3.1** Product must be made in accordance with reasonable industry practice with respect to holes, tears, wrinkles, cleanliness, foreign materials or dirt. It must have no disagreeable odor, either wet or dry, in accordance with reasonable industry practice. Edges of the product must be cleanly cut and not ragged. Product must dispense properly from the container or roll.

**Product Specific Environmental Requirements**

**4.1 Recovered Fiber Requirements**

**4.1.1** The fiber in paper towels and napkins shall contain 100% recovered materials and at least 40% post-consumer material by weight.

**4.1.2** The percentage of recovered material and post-consumer material shall be calculated and certified based on the FIBER weight of the paper. Calculations will also be performed based on the total weight of the paper.

**4.1.3** The calculation of recycled content based on fiber weight shall be performed using the following formulas:

Post-consumer Material:

$$\frac{(\text{post-consumer material} \times \text{yield})}{(\text{recovered material} \times \text{yield})}$$

**4.1.4** The calculation of recycled content based on total weight shall be performed using the following formulas:

Post-consumer Material:

$$\frac{(\text{post-consumer material} \times \text{yield})}{[(\text{non-fibrous material} \times \text{yield}) + (\text{recovered material} \times \text{yield})]}$$

**4.1.5** Yield will depend on the product manufactured, the raw material, the level of contaminants and the cleaning and deinking technology employed. The percentage yield shall be calculated by dividing the total material output by the total material input.

If a particular manufacturer's operating procedures do not provide for accurate yield measurements, the following shall be used as default values:

Recovered/Post-consumer Material: 75%  
Non fibrous material: 100%

**4.1.6** The percentage of recovered material and post-consumer material shall be calculated based on a weighted average of the materials used for a period of time not to exceed the previous three months.

### **Deinking of Recovered Material**

The recovered material used to manufacture the products shall not be de-inked using any solvents containing chlorine, benzene, cadmium and cadmium compounds, carbon tetrachloride, chloroform, chromium and chromium compounds, cyanide compounds, dichloromethane, lead and lead compounds, mercury and mercury compounds, methyl ethyl ketone, nickel and nickel compounds, tetrachloroethylene, toluene, 1,1,1-trichloroethane, trichloroethylene, or xylene; or the sum concentration level of more than 1% by weight of finished product of the toxic chemicals listed by the U.S. EPA pursuant to section 313 of the Emergency Planning and Community Right to Know Act.

### **Bleaching**

**4.3.1** The recovered material used in making a certified product shall not be bleached using chlorine or any of its derivatives (such as hypochlorite and chlorine dioxide).

#### **1. Additional Ingredients**

Paper towels and napkins (not including packaging) shall not contain any added pigments, inks, dyes, or fragrances, with the exception that;

Paper towels and napkins may be printed with inks or dyes provided these inks or dyes contain a sum concentration of less than 100 parts per million, by weight, of the following toxic heavy metal ions: lead, cadmium, mercury, or hexavalent chromium.

#### **2. Requirements for Paper Towel Cores**

The core of a roll of paper towels must be manufactured from 100% recovered fiber.

#### **3. Toxics in Packaging**

The sum of the concentration levels of lead, cadmium, mercury, and hexavalent chromium present in any package or packaging components shall not exceed 100 parts per million by weight.

## *F. APPENDIX #6*

### **TISSUE PAPER (GS-01)**

#### **Product Specific Performance Requirements**

**3.1** Product must be made in accordance with reasonable industry practice with respect to holes, tears, wrinkles, cleanliness, foreign materials or dirt. It must have no disagreeable odor, either wet or dry, in accordance with reasonable industry practice. Edges of the product must be cleanly cut and not ragged. Product must dispense properly from the box or fixture.

**3.2** Each roll of bathroom tissue must contain at least 40 square feet of product (equivalent to approximately 300 x 4.5 x 4.4 inch sheets). Each box of facial tissue must contain at least 70 square feet of product (equivalent to approximately 175 x 8.0 x 8.0 inch sheets).

#### **Product Specific Environmental Requirements**

**4.1 Bathroom Tissue:** the fiber in bathroom tissue shall contain 100% recovered materials, including 20% post-consumer materials.

**4.2 Facial Tissue:** the fiber in facial tissue shall contain 100% recovered materials, including 10% post-consumer materials.

**4.3 Post-consumer Content:** the post-consumer content of a product shall be determined by measuring the average product fiber utilization over a period of no longer than three months.

**4.4 De-inking of Recovered Paper:** recovered paper shall not be de-inked using a solvent containing chlorine, or any chemicals listed by the EPA under Section 313 of the Emergency Planning and Community Right To Know Act.

**4.5 Bleaching:** Chlorine and its derivatives shall not be used.

**4.6 Additional Ingredients:** the product (not including packaging) shall not contain any added pigments, inks, dyes, or fragrances.

#### **Packaging Requirements**

**5.1** The core of a roll of bathroom tissue or the box used to package facial tissue must be made from 100% recovered fiber.

**5.2** A consumer package of bathroom tissue must contain at least 4 rolls unless the outer wrapper has been manufactured from 100% recycled materials.

**5.3** Packaging shall not contain inks, dyes, pigments, stabilizers, or any other additives to which any lead, cadmium, or hexavalent chromium has been intentionally introduced.

**5.4** The sum of the concentration levels of lead, cadmium, mercury, and hexavalent chromium present in any package or packaging components shall not exceed 100 parts per million by weight.

## G. APPENDIX #7

### ACRONYMS

<b>CDC</b>	<b>Centers for Disease Control and Prevention</b>
<b>CRI</b>	<b>The Carpet and Rug Institute</b>
<b>DEC</b>	<b>Department of Environmental Conservation</b>
<b>DOH</b>	<b>Department of Health</b>
<b>DOL</b>	<b>Department of Labor</b>
<b>EPA</b>	<b>Environmental Protection Agency</b>
<b>FIFRA</b>	<b>Federal Insecticide, Fungicide, and Rodenticide Act</b>
<b>HEPA</b>	<b>High Efficiency Particulate Air Filters</b>
<b>ISSA</b>	<b>“Used to Stand for International Sanitary Supply Association”, but they have expanded the organization and therefore this doesn’t encompass everything their organization does now, so the acronym is just that, an acronym.</b>
<b>MSDS</b>	<b>Material Safety Data Sheets</b>
<b>NSC</b>	<b>National Safety Council</b>
<b>OECD</b>	<b>Organization for Economic Co-operation and Development</b>
<b>OGS</b>	<b>Office of General Services</b>
<b>OSHA</b>	<b>Occupational Safety and Health Administration (U.S. Department of Labor)</b>
<b>PESHA</b>	<b>Public Employees Safety and Health Act (NY Department of Labor)</b>
<b>SED</b>	<b>State Education Department</b>
<b>VOC</b>	<b>Volatile Organic Compounds</b>

### DEFINITIONS

**Anti-Microbial:** An agent that kills microbes.

**Antimicrobial Agents:** Can destroy bacteria and viruses by interfering with their metabolism or destroying their cell walls. Different chemical structures can service this purpose, including alcohol, sodium hypochlorite, iodine, pine oil, phenolic and quaternary ammonium compounds.

**EPA Link for Glossary and Acronyms:** <http://www.epa.gov/OCEPAterms/>

## **Germicides**

### **Types of germicides:**

**1) Sanitizer:** A germicide that destroys microorganisms (germs) on a washed and rinsed surface for the period of time until the sanitizer evaporates. Once evaporated, “germ-killing” ceases. Sanitizers are not designed to remove soil.

A term applied to a chemical or formulation that reduces pathogenic organisms to humanly acceptable levels. Dependent upon the number of microorganisms present, the 0.001% survivors may be enough to cause cross contamination or nosocomial infections in susceptible hosts. Generally used on food contact surfaces and specified by USDA or local Health Departments.

**2) Disinfect-Detergent:** A concentrated or ready-to-use solution formulated to leave a sticky germicide film (residual) on a surface after drying. The residual has an active time of 6± hours or until it gets contaminated by soil. Once contaminated, the disinfectant-detergent residual loses its germ-killing effect. This type of product should not come in contact with food, be used around open (unprotected) food products, or be applied to food preparation surfaces.

**Environmentally Sensitive Cleaning:** The term is synonymous with “green cleaning”. Environmentally sensitive cleaning products are cleaning products having properties that minimize potential impacts to human health and the environment without sacrificing product effectiveness.

**Green Cleaning:** The term green cleaning is synonymous with environmentally preferred or environmentally sensitive cleaning.

These terms are often used interchangeably to describe cleaning and maintenance products having properties that minimize potential impacts to human health and the environment without sacrificing product effectiveness

**Green Seal:** Green Seal is an independent, non-profit organization that strives to achieve a healthier and cleaner environment by identifying and promoting products and services that cause less toxic pollution and waste, conserve resources and habitats, and minimize global

warming and ozone depletion. Green Seal has no financial interest in the products that it certifies or recommends nor in any manufacturer or company. Green Seal's evaluations are based on state-of-the-art science and information using internationally recognized methods and procedures. Thus, Green Seal provides credible, objective, and unbiased information whose only purpose is to direct the purchaser to environmentally responsible products and services.

**National Safety Council:** The National Safety Council is a nonprofit, nongovernmental, international public service organization dedicated to protecting life and promoting health. The NSC is a membership organization, founded in 1913 and chartered by the U.S. Congress in 1953. Members include more than 48,000 businesses, labor organizations, schools, public agencies, private groups and individuals.

**From NSC: (Link to Website “Environmental Health Center” Glossary:**  
**<http://www.nsc.org/ehc/glossary.htm>**)