

# Customize Organizations Name

Documentation Binder for  
meeting the:

**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**

New York State Office of General Services  
August 4, 2006





# NYS Guidelines & Specifications

**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 AND FOR THE PROCUREMENT AND USE OF ENVIRONMENTALLY PREFERRED CLEANING PRODUCTS FOR STATE AGENCIES/PUBLIC AUTHORITIES IN NEW YORK STATE**

New York State Office of General Services

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Guidelines Revised on March 27, 2007 (**Changes Made to “Meets Standard” Requirements in Selection of OGS Green Cleaning Products Portion of the Guidelines after Public Comment**)

**\*\* ["Meets Standard" Product Inclusion to Green Cleaning Guidelines for Schools \(Temporarily Suspended\) \(July 10, 2008\)](#)**

These Guidelines and Specifications were developed in consultation with representatives of the Department of Environmental Conservation, Department of Health, Department of Labor and State Education Department, as directed by Chapter 584 of the Laws of New York, 2005 and Executive Order No. 134, 2005. (Even though EO 134 is a distinct and separate document, the guidelines and specifications established for the New York State school districts, along with the approved cleaning product lists developed as a result of the legislation that required all schools to use green cleaning products, are also applicable for the selection and use of cleaning products for State Agencies under EO134.)

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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** AND FOR THE PROCUREMENT AND USE OF  
ENVIRONMENTALLY PREFERRED CLEANING PRODUCTS FOR STATE  
AGENCIES/PUBLIC AUTHORITIES IN **NEW YORK STATE**

## **I. OVERVIEW**

These Guidelines were developed with the recognition and understanding that they will act as a catalyst for study, advancement of knowledge and changes in products and their availability. The marketplace is expected to adapt over time as knowledge improves, new or modified products become available and product applications are better understood through research, usage and observation. Therefore, OGS is issuing these Guidelines with the intent that they will be changed when necessary. This will allow New York State to establish a high standard for schools and state agencies/public authorities to work towards now, while additional information can be evaluated to make the standard even more health and environmentally sensitive/preferred within the next 12-18 months. As such, OGS has contracted with Green Seal, Inc. to revise the GS-37 standard through a consensus based process. Any changes to these Guidelines will be based on solid scientific studies and research.

Schools are expected to use this document to meet the implementation date of September 1, 2006. However, nothing in the legislation precludes elementary and secondary schools from depleting existing cleaning and maintenance supply stores purchased prior to September 1, 2006. OGS has provided a section in this document as well as on our website that provides guidelines for vendors to follow to submit cleaning products for approval. In addition, OGS developed lists of environmentally sensitive cleaning and maintenance products and environmentally preferred cleaning products (OGS green cleaning products) for cleaning products and vacuum cleaners for schools and state agencies/public authorities to use. On January 31, 2007, OGS posted additional product lists on our Environmental Services Unit website. These product lists include floor finish, floor finish stripper and hand cleaners/hand soaps.

The Office of General Services will amend these guidelines and criteria to reflect higher standards for environmentally sensitive cleaning and maintenance products/environmentally preferred cleaning products as the marketplace responds by providing products which are more health and environmentally sensitive/preferred.

### ***A. Purpose of Guidelines and Specifications***

The primary focus of this 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 can be vulnerable to, and may be severely affected by, exposure to chemicals, hazardous wastes, and other environmental hazards. The 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 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. Therefore, it is essential that green cleaning products are both environmentally sensitive as well as environmentally sustainable from the perspective of waste minimization and the reduction of toxic chemicals during manufacturing.

This document recommends a mechanism for schools to select products that have comparable or superior utility (e.g. 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 (green cleaning products)

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

### ***C. Guidelines Process and Development***

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 manufacturers, testing laboratories, and concerned citizens concerning all aspects of “green cleaning”. In addition, OGS posted the “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” for comment on our website and provided notice on the public register, as well as sending a copy to all vendors on the OGS vendor list. OGS extended the timeframe to provide comments. OGS received 208 letters and comments, which have been organized into 54 categories. The letters and comments were reviewed and responses were created, and in some cases the comments led to changes to these Guidelines.

***D. 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. In this document the term "green cleaning products" will replace the language, "environmentally sensitive cleaning and maintenance products". 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.

***E. 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. OGS has shared these guidelines and specifications, along with a list of green cleaning products, with all State Executive agencies.

***F. How school districts should use these Guidelines and the lists of OGS Green cleaning products to make purchases.***

1. Use up your existing inventory of products, if they are not on one of the OGS green cleaning product lists.
2. OGS has developed five lists of green cleaning products for schools to use. These include Cleaning Products, which encompass the following categories: general purpose cleaners, bathroom cleaners, carpet cleaners, and glass cleaners. In addition there are separate product lists for floor finish, floor finish strippers, hand cleaners/soaps and Vacuum Cleaners.
3. Select a specific product category, such as Glass and Window Cleaner, and review the OGS list of green cleaning products for Glass and Window Cleaners.
4. Review your purchasing procedures (The State Education Department Purchasing Handbook at <http://www.emsc.nysed.gov/mgtserv/purchasing/handbook.htm>).
5. Most public schools are required to consider Preferred Source vendors first, before selecting a product from a non Preferred Source vendor, and the list has a



column indicating if a product is from a preferred source vendor. (See Chapter 5 of the Purchasing Handbook as well as the NYS Preferred Source Guidelines on the Office of General Services' website at

<http://www.ogs.state.ny.us/procurecounc/pdfdoc/psguide.pdf>)

6. Work with your janitorial staff to try/test one or more new green products contained on the OGS green cleaning product list. Get feedback from staff, and determine if this new product meets your cleaning needs.
7. Obtain pricing information from the vendor(s).
8. Use the “**Cost Calculator for Green Cleaning Products**” which is located on the ESU website at:  
<http://www.ogs.state.ny.us/bldgadmin/environmental/default.html>. The link to the “Cost Calculator for Green Cleaning Products” is on the left side of the ESU webpage.
9. The Cost Calculator has been provided to allow all vendors and customers to calculate the costs of diluted cleaning solution per gallon based on manufacturer’s recommendations for a specific cleaning product category.\* OGS is providing this calculator in an effort to help custodial managers calculate the per-use cost of cleaning products that get diluted, such as detergents. A per-gallon or per-pound price may look good on paper, but the actual cost per gallon of diluted cleaning solution (i.e. washing or mopping solution) is the price that determines competitiveness.
10. Require the selected vendor to provide training to staff before products are used.
11. Maintain records of your purchases, and what products were replaced, so you have information for future reporting requirements as required by the legislation.

*\* Product dilution rates should be handled as simply as possible. Some vendors may confuse matters by stating that their products can work at a variety of dilution rates. They may talk about light, medium and heavy soils, but you are looking for their suggested or recommended dilution rate for conditions commonly encountered in your school. You may need to experiment with various dilution rates within your school, but you are looking for the rule, not the exceptions, concerning the optimum dilution rate for a specific cleaning product used in your school.*

## II. RELATED RULES AND GUIDELINES

OGS recognizes that certain circumstances (e.g. blood spills) and locations (e.g. food service, swimming pool areas, nursing offices, school-based health centers, and in-school child day care centers) may require special cleaning practices that are prescribed by existing laws, regulations or professional guidance. The law for green cleaning does not supersede or change existing health, labor, education and environmental regulations and professional guidance related to cleaning and maintenance practices and disposal of hazardous chemicals. During the process of selecting green products and practices, schools should identify areas and activities, such as those described above, where special cleaning practices and products are prescribed. In circumstances where the use of disinfectants and sanitizers or other special cleaning practices are prescribed, personnel must be trained in the proper use of these products and label directions must be followed.

The following are examples of laws, guidelines and professional guidance that are relevant to cleaning and maintenance practices in schools.

## **1. Department of Health (DOH)**

### **Health and Sanitary Codes:**

Schools should contact their local health departments for an interpretation of what is acceptable for use in food service areas and swimming pools. Relevant state codes can be found as follows:

- Food Service Establishments (Subpart 14-1):
  - Equipment and Utensil Cleaning and Sanitation - Sections 14-1.110 thru 14-1.117
  - Plumbing - Sections 14-1.143
  - Construction and Maintenance of Physical Facilities - Sections 14-1.172 and 14-1.173
- Swimming Pools (Subpart 6-1)
  - Operation, Supervision and Maintenance – Section 6-1.10
  - Bathhouse and Toilet Facilities - Section 6-1.15

In order to access the aforementioned sections of the State Sanitary Code go to: [www.health.state.ny.us/nysdoh/phforum/nycrr10.htm](http://www.health.state.ny.us/nysdoh/phforum/nycrr10.htm)

Click on “Search Title 10” at the website listed above. In the "Search For" box, type in the Section number. For example, type in "Section 14-1.110" and click "Search" to be directed to the link for Section 14-1.110. Click on the link to access the section.

## **2. Office of Children and Family Services (OCFS)**

- Child Day Care Centers (Subpart 418-1.11)  
For information on NYCRR Title 18 and how to obtain a copy go to:  
<http://www.health.state.ny.us/nysdoh/phforum/nycrr18.htm>

Click on “Search Title 18” at the website listed above. In the "Search For" box, type in the part number. For example, type in "Part 418" and click "Search" to be directed to the link for Part 418.

## **3. Occupational Safety & Health Administration/Public Employee Safety and Health Administration (OSHA/PESHA)**

The environmentally sensitive cleaning legislation encourages school districts and facility managers to assess cleaning needs when selecting cleaning and maintenance products, while minimizing adverse impacts to children, teachers, other school staff and the environment. This approach conforms with OSHA/PESH safety and health standards. Such standards would include General

Housekeeping, Hazard Communication, Bloodborne Pathogen requirements e.g. nurse's offices, gymnasiums, laboratories, etc.

Within New York State, OSHA regulates private sector employers. PESH regulates all public sector employers. Further information is available from the following websites:

(1) <http://www.osha.gov/>

(2) <http://www.labor.state.ny.us/workerprotection/safetyhealth/faq.shtm#2>

#### 4. State Education Department (SED)

- (Public Schools only): Building Condition Survey §155.4(b)(1)(ii)(m)
  - Environmental features, including cleanliness shall be inspected and reported as part of the building condition survey.
- (Public Schools only): Annual Visual Inspection §155.4(2)(ii)
  - Environmental features, including cleanliness, shall be re-inspected and reported as part of the annual visual inspection process.
- Control of Communicable Disease in the School Setting Guideline:
  - The school environment is conducive to the acquisition, transmission, and prevention of communicable disease. As part of maintaining a safe and healthy environment for the school community, certain general and disease specific control procedures need to be instituted to minimize the inherent risks. In order to deal effectively with a communicable disease event, a school district should establish policies and procedures in advance. This will allow for a logical, rational plan of action, should an outbreak occur. Some guidelines have been developed to provide a practical reference for school health professionals in the care of children in the school setting.

Further information about this Guidance is available at the following website:

<http://www.schoolhealthservices.org/uploads/Control%20Communicable%20Diseases-August%2018%202005%20final.pdf>

#### 5. Department of Environmental Conservation (DEC)

- Disposal of Cleaning Products  
<http://www.dec.ny.gov/chemical/292.html>
- The link listed above will provide information on existing regulatory programs related to Hazardous Waste and Solid Waste, however, there is no specific information regarding the disposal of cleaning products. Therefore, the following information was provided by the DEC Solid & Hazardous Materials Unit to address this issue:
  - It is incumbent upon any entity that generates a solid waste to make a determination if in fact their waste is hazardous. Under the regulations, this can be accomplished by testing (TCLP: Toxicity Characteristic Leaching Procedure: Soil sample extraction method for chemical analysis) or by knowledge which is verifiable. It is important to know the contents of materials and products being used, and with any contamination the waste may have acquired during its normal use.

- Product information is available from manufacturers and distributors. Products which don't provide this information should be avoided.
- Further Clarification on Disposal of Cleaning Products

As the legislation does not preclude schools from depleting existing cleaning and maintenance supply stores of non-green products purchased prior to September 1, 2006, and EO134 allows state agencies to transition to green cleaning products by July 2005 in such a manner that avoids waste of existing inventories, accommodates establishment of supply chains for new products, enables the training of personnel in appropriate work practices, and allows the phase out of products and practices inconsistent with EO134, the Department of Environmental Conservation (DEC) recommends that existing chemicals be used to completion instead of disposing of them as waste.

If a school or state agency does not want to use up the non-green products still in stock, then DEC recommends that they contact a private hauler for the management and disposal of bulk quantities of waste. This explanation should not be seen as an authorization to purchase non-green products, but as a realistic and reasonable manner to move into compliance with the school legislation and with EO 134 for state agencies, while also meeting the intent of reducing the impact of cleaning schools or State Facilities and not disposing of cleaning products in a harmful manner.

If the schools or state agencies still have questions after going through their waste inventory with a private hauler, or have questions pertaining to a specific chemical, DEC suggests they contact the Small Quantity Generator Hotline at 800-462-6553 or the DEC Pollution Prevention Unit at 518-402-9469.

### III. 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 OGS green cleaning product lists 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 “I” 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
14. Training
  - The product manufacturer, its distributor, or a third party shall offer training or training materials in the proper use of the product. These shall include step-by-step instructions for the proper dilution, use, disposal, and the use of equipment. Manufacturers shall have product labeling systems to assist non-English-speaking or illiterate personnel.
15. Animal Testing
  - Green Seal wants to discourage animal testing and will accept the results of past peer-reviewed or standard tests demonstrating compliance with a criterion. A mixture need not be tested if existing information demonstrates that each of the ingredients complies with a criterion. Additionally, Green Seal may accept non-animal (in-vitro) test results, providing that the test methods are referenced in peer-reviewed literature and the manufacturer provides the reasons for selecting the particular test method.

## 16. Labeling Requirements

- 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. Carpet cleaner labels shall specify the use of cold water for products that do not suffer significant performance degradation in cold water. The manufacturer shall also include detailed instructions for proper use and disposal and for the use of personal protective equipment. Whenever the Green Seal certification mark appears on a package, the package shall contain a description of the basis for certification. The description shall be in a location, style, and typeface that are easily readable. Unless otherwise approved in writing by Green Seal, the description shall read as follows:
  - "This product meets Green Seal's environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential." For FIFRA-registered bathroom cleaners, replace "toxicity" with the word "impacts".

## IV. 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, in addition to selecting green cleaning products that work effectively. Making both good selections and following best practices are essential to 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 describe best practices. Each of these practices may be applied to specific cleaning needs. More detailed information on best cleaning practices can be viewed through a website from the Collaborative for High Performance Schools, as part of Volume IV "Maintenance and Operations of their Best Practices Manual" by clicking: [http://www.chps.net/manual/documents/BPM\\_2006\\_Edition/CHPS\\_IV\\_2004.pdf](http://www.chps.net/manual/documents/BPM_2006_Edition/CHPS_IV_2004.pdf)

### ***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 disinfectant or germicide if needed.***

1. First and foremost, a clean, residue-free 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 NYS Department of Environmental Conservation** as an approved antimicrobial product. To be included on the OGS green cleaning product list, OGS will require the manufacturer to submit the "Certificate of Pesticide Registration" for any product that makes a disinfecting, sanitizing, antibacterial or other antimicrobial claim. Consumers can check the NYS DEC website at [http://www.dec.ny.gov/docs/materials\\_minerals\\_pdf/pestprod.pdf](http://www.dec.ny.gov/docs/materials_minerals_pdf/pestprod.pdf) or the joint Cornell-DEC website at <http://pmep.cce.cornell.edu/pims/>, for a listing of registered pesticides, to confirm registration of specific products.
4. If a school decides to use a disinfectant or sanitizer, personnel must be trained in the proper use of these products and label directions must be followed.

***D. Minimize, to the extent practical, the use of products that leave a scent in the room.***

1. Fragrance formulations are a complex mixture of chemical ingredients, often consisting of many chemicals. Fragrances are commonly used in cleaning products. In many cases, the fragrance ingredients are added for aesthetic reasons and do not affect the cleaning properties of the product. However, some of the fragrance ingredients can improve cleaning performance and some counter-act an objectionable odor from the cleaning ingredients in a product or from the environment being cleaned.
2. Some chemicals used in fragrance formulations can be irritating to the eyes and airways. Some people with hyper-responsive airways or skin allergies experience asthma symptoms in response to inhalation or eye exposure to fragrances and related chemicals or to the perception of odor. Therefore, to the extent feasible, reduce the use of cleaning products that leave a scent in the room. One way to accomplish this is to avoid using products that have a fragrance added to create a scent. The lists of OGS green cleaning products identifies those products to which a fragrance has been added.

***E. 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.
4. While substantial work has been done by a variety of manufacturers to develop “green” or environmentally sensitive floor finishes and floor strippers, there is not enough information indicating that these products meet OGS requirements for wear and tear, burnishing, and set time before stripping. Therefore, OGS is not precluding the use of green seal certified floor care products as long as they meet our standards, but OGS is not adopting the Green Seal standard at this time. Please see section VI for a detailed explanation of OGS requirements for floor finishes and floor strippers.

#### ***F. Use cold water.***

1. OGS recommends the use of Cold Water Cleaning. School districts that currently use hot or warm water to clean with should experiment with green cleaning products that work with cold water. This will allow the cleaning professionals in each school district to weigh the pros and cons of using hot or cold water, to determine if one method cleans better than another for some or all applications, and whether or not there are cost savings associated with the use of cold water cleaning.
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 since today's detergent technology no longer needs heat to activate the cleaning action. In many schools the use of hot water requires starting up large boilers that are used to heat the school in the winter and produce hot water. The use of cold water saves money and reduces energy consumption labor — hot water washing requires a cold water rinse which is an added step.
5. In addition, from a safety standpoint, cold water will not cause severe burns as has occurred with the use of hot water.



***G. Consider the impact and Life Cycle Costs (LCC) of maintenance in choosing floor products.***

1. Districts are encouraged to review Section 4.1.2 on the use of flooring, including carpeting, in the New York State High Performance Schools Guidelines through this web link [http://www.emsc.nysed.gov/facplan/NYSERDA/NY-CHPS\\_Ver\\_1-1\\_Feb\\_07.html](http://www.emsc.nysed.gov/facplan/NYSERDA/NY-CHPS_Ver_1-1_Feb_07.html)
2. Some of the High Performance Schools suggestions are:
  - The LCC of flooring materials is particularly important in schools as the total cost of floor maintenance can be significantly more than the initial or replacement cost of the flooring materials.
  - Over the lifespan of a floor, maintenance costs can exceed the initial installation costs by a factor of 2.5 to 25 times the initial cost of installation.
  - Where “softer” surfaces are desired for sound deadening, such as in classrooms, it may be desirable to use area rugs (which can be easily washed or replaced) and acoustic ceiling panels. However, area rugs can be a trip hazard, and slips and falls may be more of a concern when they are present. This concern should be addressed when using area rugs in schools.
3. The use of walk off mats, as noted in IV.A. above will also help with limiting dirt, dust and grime carried into the school and onto floor coverings, thereby helping with maintenance.

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

1. Carpets that are vacuumed regularly contain significantly less dirt, dust and food residue. A regular carpet vacuuming routine helps maintain environmental quality in school and extends the life of a carpet. It should also reduce the use of chemical and/or water-based shampoo extraction products.
2. Use extraction cleaning methods when needed, but always dry vacuum before using cleaning solutions. Use cleaning methods recommended by the carpet manufacturer.

***I. Maintain vacuum cleaners and filters regularly.***

1. Vacuums are a very effective tool in the cleaning of schools. However, it is essential that both the vacuum and the filters are maintained on a regular basis. A vacuum will not clean if the filter is clogged or the bag is full. Follow the manufacturer recommendations carefully.
2. Only use the approved filter and bag for the vacuum and make sure that they are properly installed in the equipment. If the filter and bag are not seated properly, particulates will bypass the filter and bag and contribute to poor air quality in the school.

***J. Investigate the use of new cleaning technologies and equipment.***

1. The use of microfiber cloths and mops, multilevel walk-off mats, two chamber cleaning buckets, 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.
1. Costs should be weighed against the benefits to cleaning. 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.
2. Investigate the use of "No Touch" cleaning systems. No touch cleaning systems are systems that combine pressure washing, chemical application, and wet vacuuming into a single process. These systems may minimize the use of chemicals through metering while allowing employees to avoid contact with chemicals as well as the surfaces to be cleaned. Districts may wish to evaluate the use of these systems in their facilities.
3. New types of materials and equipment based on new technologies are also important to help districts reduce the toxicity of products and equipment used in schools. Examples include the batteries in battery operated cleaning equipment such as floor buffers and scrubbers. Technological improvements have resulted in absorbed glass mat and gel cell batteries which are sealed and do not contain liquid acid, thereby eliminating hazards from acid spills, breakage, and off gassing during charging cycles.
4. New products also offer opportunities to conserve energy, reduce waste, and improve both the indoor and natural environments. For example, waterless urinals consume no water, have no moving parts, and are easily cleaned.

Districts should be aware of the possibilities of improving the environment, and eliminating hazardous materials through the use of new technologies and products.

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

1. Training needs to 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, web based training, 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.
4. Periodic monitoring of cleaning practices should be conducted to ensure new personnel are properly trained and existing personnel are following established procedures.

***L. Leave virtually no residue.***

Cleaning products should leave virtually 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.

***M. Provide faculty and/or administrative staff with voluntary access to a spray bottle of the school's approved general green cleaning product.***

It is recommended that faculty and/or administrative staff be offered training on the proper use of general green cleaning products selected for use by their respective school system. Such voluntary training would serve as a prerequisite for their limited access to a spray bottle that contains such a product. This will enable faculty and/or administrative staff or students (with direct adult supervision) to use an approved cleaning product in their own classroom or office if they believe it is necessary to do so. This will also help prevent potential problems that can develop when cleaning products are brought from home and used in combination with other products used by the school's cleaning staff. The mixing of certain products and chemicals can lead to unsafe and unhealthy environments.

***N. Consider purchasing universal mounted dispensing/proportioning systems, not proprietary systems that can only be used with one company's cleaning products.***

School districts should evaluate the availability of ***universal mounted dispensing/proportioning systems*** for various cleaning products. They allow a district to purchase and use cleaning chemicals and supplies from many different manufacturers and vendors. Proportioners are dispensing systems that are designed to dispense chemical concentrate from various sized containers and dilute with water to smaller containers. These products dispense a ready-to-use mixture to spray bottles, mop buckets, auto scrubbers or any other receptacle. Proportioners come in many different sizes with different features and benefits, such as:

1. Locking wire rack
2. Drip trays
3. Stainless steel cabinets
4. Metering tips to adjust chemical per requirements
5. High flow for bucket and auto scrubber fill
6. Low flow for spray bottle and gallon jug filling
7. Completely closed cabinet for the highest security
8. Product labeling that is also color coded
9. High hazard back flow preventor

OGS also recommends that schools consider only purchasing cleaning products with generic tops as the universal dispensing/proportioning systems generally only accept such containers.

***O. Voluntarily investigate the procurement and use of sanitary paper products.***

Further consideration has been given to the section of the guidelines dealing with paper products. OGS has not changed its position with respect to comments received in response to the publication of the draft guidelines insofar as we continue to disagree with comments that the environmental issues associated with the procurement, use and disposal of paper products are separate and distinct from the procurement of cleaning products.

Nonetheless, the clear focus of the underlying statute is on minimizing exposures to chemicals affecting human health and the environment and the statute does not speak directly to products or substances introduced into the school setting that do not constitute chemicals from cleaners, waxes, deodorizers and other cleaning and maintenance products.

Consistent with our position that paper products are available in differing forms, some of which may be more environmentally preferable than others when manufacturing processes and recycled material content are taken into account, it is expected that some schools will adopt policies that encourage acquisition and usage of environmentally preferable paper supplies associated with cleaning and maintenance, i.e., tissue paper, paper towels, wipes and similar products.

As of March 2007, there are no statewide contracts from which municipalities or subdivisions, including school districts can purchase paper products for cleaning and maintenance functions that are approved as being in compliance with the standards of either of the certification organizations that we have identified and whose standards have been adopted herein. Given the fact that a school district cannot readily and efficiently acquire such products, we have therefore removed a list of sanitary paper products that are approved by either Green Seal or Environmental Choice from the website.

This set of circumstances could leave an environmentally progressive school seemingly without choice or availability of products compliant with policies adopted and pursued within such district. Since that result is undesirable, we believe it appropriate to offer the following website addresses where either certified products are identified or where information can be obtained about postconsumer fiber content, recovered fiber content, chlorine free, and elemental chlorine free manufacturing processes:

- Green Seal Standards  
[http://www.greenseal.org/certification/standards/tissue\\_paper\\_GS\\_01.cfm](http://www.greenseal.org/certification/standards/tissue_paper_GS_01.cfm)  
 (GS-01 Tissue Paper)  
[http://www.greenseal.org/certification/standards/paper\\_towels-napkins\\_GS\\_09.pdf](http://www.greenseal.org/certification/standards/paper_towels-napkins_GS_09.pdf)  
 (GS-09 Paper Towels)
- Environmental Choice Standards  
<http://ws617399.websooon.com/common/assets/criterias/CCD-086.pdf>  
 (CCD-086 Hand Towels)  
<http://ws617399.websooon.com/common/assets/criterias/CCD-085.pdf>  
 (CCD-085 Kitchen Towels)  
<http://ws617399.websooon.com/common/assets/criterias/CCD-082.pdf>  
 (CCD-082 Toilet Tissue)
- United States Environmental Protection Agency  
<http://www.epa.gov/epaoswer/non-hw/procure/products/tissue.htm>

***a. Cost savings and waste reduction suggestions related to the procurement and use of sanitary paper products.***

- Consider replacing single roll tissue dispenser with a dispenser that can hold multiple rolls. This will reduce the number of small rolls that get thrown away because the tissue would run-out before they were to be changed the following day or cleaning shift.
- Consider replacing multi-fold towel dispensers with large rolls dispensed from a touch-free dispenser to reduce not only paper consumption, but possible cross-contamination (the passing of potentially harmful organisms) from touching levers and cranks.
- Consider utilizing paper products that eliminate cores and wrappers that must be discarded.
- Consider utilizing paper that uses a case configuration to allow more to be shipped on a truck, thus reducing transportation impacts.

These simple strategies have been found to, among other things; reduce sanitary paper product consumption between 10 and 15 percent, which can be a good strategy to help offset any potential increase in cost for recycled paper.

## **V. 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. This could be a multi faceted approach, whereby schools could

purchase an entire consulting package or individual components, depending upon their needs. For example, one component of a consulting package could entail a computerized space analysis and equipment audit. The results would provide information on all areas needing cleaning, as well as suggested staff size based on the number and frequency of cleaning tasks in order to achieve various performance levels. Another component could be a customized training program, so custodial staff understand the proper use of cleaning chemicals, the variety of cleaning surfaces and how their jobs directly impacts the health and environment of the entire school. A third component could be the development of a program to measure progress and suggest improvement opportunities. 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.

## **VI. DESIGNATION OF OGS GREEN CLEANING PRODUCTS**

### ***A. These guidelines and specifications apply to the following environmentally sensitive cleaning and maintenance product categories:***

- General Purpose Cleaners
- Bathroom Cleaners
- Carpet Cleaners
- Glass, Window, and Mirror Cleaners
- Vacuum Cleaners
- Hand Cleaners/Hand Soaps
- Floor Finishes
- Floor Finish Strippers

### ***B. Basic Strategy***

OGS has been guided by the principles for environmentally preferable purchasing described by the EPA, Office of the Federal Environmental Executive, International Organization for Standardization and the Global Ecolabelling Network. For cleaning products, OGS identified the Green Seal, Inc. (see [www.greenseal.org](http://www.greenseal.org)) and the Environmental Choice (see [www.environmentalchoice.com](http://www.environmentalchoice.com)) certification processes as generally meeting the intent of the legislation to help schools select environmentally sensitive cleaning and maintenance products. The Carpet and Rug Institute (see [www.carpet-rug.org](http://www.carpet-rug.org)) was selected as having a certification process for vacuum cleaners that also meets the intent of the legislation for these products.

To provide a level playing field for all product manufacturers, products must be verified to meet the standard by a qualified third party organization that is independent of the manufacturers and formulators of the products. **(In recognition of concerns about the cost of certification and the limited number of accepted certification organizations, OGS will accept other products for listing as described below - Temporarily Suspended 07/10/08.)**

Any product may be randomly tested by an independent laboratory to verify claims that it meets the standards defined in these guidelines. Products found not to meet the standard will be removed from the list of OGS Green Cleaning products.

### ***C. Selection of OGS Green Cleaning Products.***

OGS is requiring that any vendor/manufacturer/formulator wishing to have a product added to an OGS Green Cleaning list of environmentally sensitive cleaning and maintenance products must demonstrate that the product complies with one of the following standards (listed 1-5 below):

#### ***1. Green Seal, Inc. GS-37, Environmental Choice CCD-146, Environmental Choice CCD-148 or **\*\*Meets Standard:*****

OGS has adopted the Green Seal, Inc. standard, GS-37 for industrial and institutional cleaners for General Purpose Cleaners, Bathroom Cleaners, Carpet Cleaners and Glass/Windows/ Mirror Cleaners. Products that have been certified under the Environmental Choice Program standard, CCD-146 or CCD-148 that is managed by Environment Canada and TerraChoice Environmental Marketing will also satisfy the standard. (See Section VII for a definition of each product category, and Appendix "I" for a more detailed listing of the criteria that products must meet.)

- a. For companies that "have" Green Seal or Environmental Choice certification for a specific product in the cleaning categories mentioned above:**
- OGS has created a Green Cleaning product list by using both the Green Seal and Environmental Choice websites for products that have Green Seal or Environmental Choice certification for General Purpose Cleaners; Bathroom Cleaners; Carpet Cleaners and Glass, Window and Mirror Cleaners. There is no need for companies with either certification to submit the paperwork. (Please review the list of OGS approved green products and if you believe your company and products should be listed, please provide us with that information.)
  - **"IMPORTANT"**: Companies must submit information concerning a dilution rate for each product category for which they are submitting products. This is the optimum or suggested dilution rate, without requiring a rinse step.

**b. For companies that “do not have” Green Seal or Environmental Choice certification for a specific product in the cleaning categories mentioned above, but can prove they meet either the Green Seal Inc. GS-37 standard or the Environmental Choice health and environmental standard CCD-146 or CCD-148 for carpet cleaners, must: (Go to “Product Certification/Meets Standard Clarification” for detailed instructions/information and appropriate affidavits.) (Temporarily Suspended 07/10/08)**

- **In either a. or b.,** for any product that makes disinfecting, sanitizing, antibacterial or any other antimicrobial claims on its label or in its advertising, companies must submit the NYSDEC “Certificate of Pesticide Registration” to appear on OGS’s list of green 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, carpet or glass cleaner.

**2. Green Seal, Inc. GS-41 / Environmental Choice CCD-104 (Hand Cleaner/Hand Soap) or *\*\*Meets Standard*:**

OGS has adopted the Green Seal, Inc./ Environmental Choice Program standard (GS-41/CCD-104) for Hand Cleaners/Hand Soaps. This is a jointly developed standard between Green Seal and Environmental Choice. (See Section VII for definition of product categories, and Appendix “II” for more detailed information on the GS-41/CCD-104 standard.)

GS-41/CCD-104 was finalized in June 2006. Since that time, Green Seal, Inc. and Environmental Choice have been accepting products for certification. In recognition of the fact that this was a newly created standard and it would take time for a reasonable amount of product choices suitable for general hand washing in schools to be made available, OGS chose to postpone having schools purchase hand cleaner/hand soap products until after January 2007. As of January 2007, a reasonable variety of certified products was made available and a list of OGS approved hand cleaners/hand soaps was created. On January 31, 2007, the list was posted on the OGS website at <http://www.ogs.state.ny.us/bldgadmin/environmental/ProductLists.html>.

- a. For companies that “have” Green Seal/ Environmental Choice certification for hand cleaner/hand soap products as mentioned above:**
- OGS has created a green hand cleaner/hand soap product list by using both the Green Seal and Environmental Choice websites for products that have Green Seal or Environmental Choice certification for Hand Cleaners/Hand Soaps. There is no need for companies with either certification to submit the paperwork. (Please review the list of OGS approved green products and if you believe your company and products should be listed, please provide us with that information.)



- b. **For companies that “do not have” GS-41/CCD-104 certification, but can prove they meet the GS-41/CCD-104 hand cleaner/hand soap standard must: (Go to “Product Certification/Meets Standard Clarification” for detailed instructions/information and appropriate affidavits.) (Temporarily Suspended 07/10/08)**

3. ***Carpet and Rug Institute (CRI) Green Label Standard and (CRI) Seal of Approval/Green Label Standard***



OGS adopted the Carpet and Rug Institute Green Label standard for vacuum cleaners and created an OGS green vacuum cleaner product list of vacuums that met this standard.

To qualify for the Green Label standard, these vacuums needed to go through a stringent testing process (see Appendix “III” for a more detailed description of these protocols) that measured three key performance factors:

- **Soil Removal**
- **Dust Containment**
- **Carpet Appearance Retention**

OGS then created a Green Vacuum Cleaner product list by using the CRI website for products that have Green Label certification.



In July 2007, Carpet and Rug Institute combined the indoor air quality protection of its Green Label vacuum program with the enhanced cleaning standards of its Seal of Approval program to identify even better performing vacuum cleaners. (see Appendix “III” for a more detailed description of this new standard/testing protocol.)

- Any vacuum cleaners certified under the original Green Label program will retain their certification until 2010, at which time the Green Label program will be phased out and the new Seal of Approval/Green Label program will be used as the only means of acquiring CRI certification.

Based on these changes, OGS is adopting the new SOA/GL program as its standard/testing protocol and will reflect these changes in the Green Vacuum Cleaner product list.

4. ***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. 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 significantly to indoor air pollution from airborne particulates or to environmental pollution by unnecessary floor finish stripping effluents. 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, OGS is 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 without long soaking times. Durability and speed enables custodians to perform the task infrequently with minimal exposure to 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, OGS does 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.

#### **A. Floor Finish Requirements:**

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

Submit signed OGS certification forms (Appendix “IV”), **from 3 different educational facility customers (not from three (3) schools within the same district). These certification forms must be submitted with a cover memo from the company to: New York State Office of General Services, Attn: Environmental Services Unit, Corning Tower, 39<sup>th</sup> Floor, Empire State Plaza, Albany, NY 12242.** The forms must attest to the fact that:

- The schools have been and continue to use the floor finish in a heavily trafficked area;
- The schools 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 OGS floor finish products.

## **B. Floor Finish Stripper Requirements**

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

Submit signed OGS certification forms (Appendix “V”), **from 3 different educational facility customers (not from three (3) schools within the same district). These certification forms must be submitted with a cover memo from the company to: New York State Office of General Services, Attn: Environmental Services Unit, Corning Tower, 39<sup>th</sup> Floor, Empire State Plaza, Albany, NY 12242.** The forms must attest to the fact that:

- Floor Finish Stripper must be a total floor finish liquefier and strip any old floor finish and/or the accepted floor finish as follows:
  1. Stripper is mixed in cold water.
  2. Stripping solution turns old finish white in 1 to 5 minutes and become totally liquefied when scrubbed with carbide-impregnated-brush mechanical action. (Use of black stripping pads may impede total removal of old finish by becoming impregnated with caked-in old floor finish causing the floor machine to "slide" ineffectively over finish not yet removed.)
  3. After the brushing action, 100% of the old floor finish must be ready for removal using a water vacuum squeegee.
  4. Immediately following the vacuuming of the spent floor finish, fresh cold water may be applied liberally and vacuumed up. (One fresh water rinse should be all that is needed—perform additional rinse steps if floor dries with a white haze.)
  5. When the floor dries, it must be 100% free of any white residue (old floor finish film).

OGS will place products meeting such standards on a list of approved OGS floor finish stripper products.

### **5. *Other Considerations***

- a. 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.
- b. Other products, such as metal cleaners, drain cleaners, mineral removers (for places with hard water), oven cleaners, graffiti removers, air fresheners, mold/mildew inhibitors /preventatives and other cleaning and maintenance products will be considered for addition to these Guidelines in the future.

## **VII. 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 apply floor finish, and it does not include cleaners intended primarily for cleaning toilet bowls, dishes, laundry, glass, carpets, upholstery, wood, or polished surfaces.

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.

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.

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.

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

This category includes products used to clean windows, glass, and polished surfaces.

Examples of types 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***

Recognizing the need to identify superior cleaning equipment, CRI introduced its Green Label Testing Program for vacuum cleaners in 2000. This program tested 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 a quarter inch or less.

Again, recognizing a need to make this program even better, CRI introduced the Seal of Approval/Green Label (SOA/GL) Testing Program for vacuum cleaners in 2007. This new program combined the indoor air quality protection of its Green Label vacuum program with the enhanced cleaning standards of its Seal of Approval program to identify even better performing vacuum cleaners. This new program tests the same two general categories of vacuums as was done in the Green Label Testing Program: **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 a quarter inch or less.

The CRI Green Label Testing Program introduced in 2000 will officially be phased out in 2010 at which time the CRI Seal of Approval/Green Label Testing Program will be the new standard/testing protocol.

## ***F. HAND CLEANERS/HAND SOAPS***

Hand cleaners/hand soaps are designed to be used with water to remove both organic and inorganic soil from skin. Industrial products are used in garages, print shops, and other settings where heavy, oily soiling occurs. Institutional products are used in public washrooms. The standard does not address products that may be used in food preparation or health care areas. Hand wipes and sanitizers are also not addressed by this standard.

## ***G. FLOOR FINISHES AND FLOOR STRIPPERS***

At this time, OGS 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, OGS wants 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 finishes 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.

## **VIII. REPORTING REQUIREMENTS**

**The legislation requires that “On or before June 1 2007, the State Education 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.”**

## IX. LINKS TO APPENDICES

<a href="#"><u>Appendix “I”</u></a>	Environmental/Health Criteria (GS-37)
<a href="#"><u>Appendix “II”</u></a>	Hand Cleaners/Hand Soaps (GS-41/CCD-104) Standard
<a href="#"><u>Appendix “III”</u></a>	Vacuum Cleaners ( <b>Revised 07/25/08</b> )
<a href="#"><u>Appendix “IV”</u></a>	Customer/Business Certification for Floor Finish Products
<a href="#"><u>Appendix “V”</u></a>	Customer/Business Certification for Floor Finish Stripper Products
<b>**<a href="#"><u>Appendix “VI”</u></a></b>	<b>Affidavit/Check List to Meet GS-37 Standard</b>
<b>**<a href="#"><u>Appendix “VII”</u></a></b>	<b>Affidavit/Check List to Meet CCD-146 Standard</b>
<b>**<a href="#"><u>Appendix “VIII”</u></a></b>	<b>Affidavit/Check List to Meet CCD-148 (Carpet Cleaners) Standard</b>
<b>**<a href="#"><u>Appendix “IX”</u></a></b>	<b>Affidavit/Check List to Meet GS-41/CCD-104 (Hand Cleaner/Hand Soap) Standard</b>
<b>**<a href="#"><u>Appendix “X”</u></a></b>	<b>Affidavit for Manufacturer/Formulator</b>
<a href="#"><u>Appendix “XI”</u></a>	Acronyms/Definitions



2

General Purpose Cleaners

## SUPER SHINE-ALL®



### **A Cleaning Legend Now More Convenient**

Arsenal® Super Shine-All® is a concentrated formulation of the original Super Shine-All that has been an industry leading cleaner for over 95 years. Now the legend is part of the convenient, versatile Arsenal Cleaning System.

### **Unique Cleaning Action**

Super Shine-All's unparalleled cleaning ability lies in its sixfold action: wetting, penetration, sudsing, dissolving, emulsifying, and suspending. In other words, soil is broken up quickly and held in solution for easy removal. The faster and more efficiently a product works, the less labor required to do the cleaning job. Plus Hillyard Green Select products are formulated to minimize the impact on the environment, reduce the risk to human health and at the same time improve worker safety.

### **Biodegradable ...Neutral pH**

As a neutral cleaner, Super Shine-All is ideal for damp mopping or auto-scrubbing of virtually all types of flooring. Super Shine-All will not harm your floor or finish, and it's biodegradable. Plus Super Shine-All does not contain phosphates, free alkali, or ammonia. This product is under the Ner Tamid "K" Kosher Supervision and is kosher.

### **Effective In Hot Or Cold Water**

Super Shine-All has a pleasant sassafras fragrance, and is effective in hard or soft, and hot or cold water. Classified by Underwriters Laboratories, Inc.®, as to slip resistance, 1865.

### **Professional Cleaning...By The Numbers**

The Arsenal line of products delivers Hillyard cleaning quality in an easy-to-dispense, easy-to-use family of products. Arsenal products are formulated for professional cleaning and are color coded with large matching numbers on both the concentrated and ready-to-use container labels for easy mixing and use. Ask your Hillyard representative about the complete line of Arsenal professional cleaning products. They are just another example of high quality from Hillyard.

### **Arsenal® Dispensing And Packaging Options:**

#### **Arsenal Push Button Dispenser**

- 1 Gallon - 4 per case
- Each gallon yields 129 gallons of RTU (ready-to-use) product
- 1/2 Gallon - 6 per case
- Each 1/2 gallon yields 64.5 gallons of RTU (ready-to-use) product

#### **Arsenal Hil-Pac® Premeasured Pouch**

- 2 oz. Pouch - 72 per case
- Each pouch yields 2 gallons of RTU product
- 4 oz. Pouch - 36 per case
- Each pouch yields 4 gallons of RTU product

#### **Dilution Rate**

- 1:128 (1 oz. per gal.)



## TECHNICAL DATA

### PHYSICAL PROPERTIES

1. Color .....	Light amber	13. Freezing point .....	0°C to -2°C
2. Clarity .....	Clear	14. Alkaline salts .....	None
3. Odor .....	Sassafras	15. Cleaning effectiveness .....	Excellent
4. Foreign matter .....	None	16. Flash point (TCC) .....	None to boiling point
5. Nonvolatile matter, 3 hrs. @ 105°C .....	12.5 - 13.0%		
6. Viscosity, Gardner, 25°C .....	A-4 maximum		
7. pH, 25° .....	9.0 - 9.3		
8. Specific gravity, 25°C/25°C .....	1.007		
9. Weight per gallon, 25°C .....	8.39 lbs (3.81 kg)		
10. Water solubility .....	Complete		
11. Phosphates .....	None		
12. Freeze-thaw (3 cycles) .....	Stable		

### TEST METHODS

5. ASTM D2834
8. ASTM D891
9. ASTM D1475
16. ASTM D56

3/97 (#808)

# HILLYARD ARSENAL®

## LABEL INFORMATION #808

# SUPER SHINE-ALL®

### DIRECTIONS FOR USE:

- ARSENAL PUSH BUTTON DISPENSING SYSTEM: Remove shipping cap and attach adapter cap to the one gallon of concentrate. Place into either wire rack or cabinet. Fill mop bucket to desired level.
- ARSENAL JUNIOR: Remove shipping cap and insert one-half gallon container into bottom of unit until it locks into place.
- ARSENAL HIL-PAC PREMEASURED POUCH: Empty contents of pouch into 4 gallons of water in a mop bucket.

**NOTICE:** For use only with Hillyard Arsenal Dilution System.

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer clean, dry container for recycling or reconditioning.

 FLOOR COATING AND FINISHING MATERIAL AS TO SLIP RESISTANCE ONLY. 186S



This product meets Green Seal's environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.

### DISCLAIMER OF WARRANTY

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

**HMIS Rating: Health = / 1, Flammability = 0, Reactivity = 0**

## WARNING

### CAUSES EYE AND SKIN IRRITATION

**CONTAINS:** WATER (CAS #7732-18-5); TALL OIL SOAP, POTASSIUM (CAS #61790-44-1); AMMONIUM PARETH SULFATE (CAS #67762-19-0); TRIETHANOLAMINE (CAS #102-71-6). Do not get in eyes, on skin, or on clothing. Avoid breathing spray mist. Use with adequate ventilation. Wash thoroughly after handling. Do not take internally. Keep container closed when not in use.

**FIRST AID:** In case of contact, immediately flush eyes or skin with plenty of water for 15 minutes, while removing contaminated clothing and shoes. For eyes get medical attention. For skin get medical attention if irritation persists.

**See Material Safety Data Sheet for additional information.**

**KEEP OUT OF REACH OF CHILDREN**

0906

**MATERIAL SAFETY DATA SHEET**

**NFPA RATING:** Health = 1 Flammability = 0 Reactivity = 0

**HMIS RATING:** Health = /1 Flammability = 0 Reactivity = 0

**SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION (#0771J)**

**Manufacturer's Name:** HILLYARD INDUSTRIES

**Product Name:** ARSENAL SUPER SHINE-ALL

**Address:** 302 North Fourth Street

**Date Prepared:** September 26, 2006

St. Joseph, MO 64501

**Prepared by:** Regulatory Affairs Department

**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

**Other information calls:** (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

**SECTION II -- INGREDIENTS/IDENTITY INFORMATION****Components**

**(Specific Chemical Identity:**

<b>Common Name(s)</b>	<b>CAS#</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>	<b>OTHER LIMITS RECOMMENDED</b>	<b>%</b>
Water	7732-18-5	none	none	N.A.	---
Tall oil soap, potassium	61790-44-1	not established	not established	N.A.	---
Ammonium parath sulfate	67762-19-0	not established	not established	N.A.	---
Triethanolamine(1)	102-71-6	not established	5 mg/m <sup>3</sup>	N.A.	---

(1) Regulated in FL., MA., PA., RI.

**SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS**

**Boiling Point:** 743mmHg 205°F **Specific Gravity (H<sub>2</sub>O = 1):** 25°C = 1.00 & 39°C = 1.00

**Vapor Pressure (mm Hg.):** 17.6 **Percent Volatile by Volume (%):** 87%

**Vapor Density (AIR = 1):** 0.6 **Evaporation Rate (ethyl ether = 1):** Slower than 1

**Solubility in Water:** Complete **Appearance and Odor:** light amber liquid, Sassafras odor

**pH (concentrate) =** 9.0-9.3

**SECTION IV -- FIRE AND EXPLOSION HAZARD DATA**

**Flash point:** None (T.C.C.) **Flammable Limits:** LEL = N.A. UEL = N.A.

**Extinguishing Media:** Water

**Special Fire Fighting Procedures:** None.

**Unusual Fire and Explosion Hazards:** None known to Hillyard Industries.

**SECTION V -- PHYSICAL HAZARDS**

**Stability:** Stable **Conditions to Avoid:** N.A.

**Incompatibility (Materials to Avoid):** None of which we have knowledge.

**Hazardous Decomposition Products or Byproducts:** As with any organic materials, combustion will produce carbon dioxide and probably carbon monoxide.

**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** None known to Hillyard Ind.

**SECTION VI -- HEALTH HAZARD DATA**

**Routes of entry:** Inhalation? No Skin? No Ingestion? No

**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Primary Irritation test on the concentrate per the Federal Hazardous Substance Act showed the concentrated product was a primary skin irritant and an eye irritant.
2. None known to manufacturer.

**SECTION VI -- HEALTH HAZARD DATA (continued)**

National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

**Signs and Symptoms of Exposure:** May cause irritation to skin and eyes.

**Medical Conditions Generally Aggravated by Exposure:** Open cuts and sores may be irritated by contact.

**Emergency and First Aid Procedures:** In case of contact with eyes or skin, flush with plenty of water for 15 minutes. Remove contaminated clothing. Call a physician if irritation persists. Wash clothing before reuse. If swallowed give water; may cause diarrhea; call physician

**SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE**

**Steps To Be Taken In Case Material Is Released Or Spilled:** Rinse area with water and pick up with wet vac or mop.

**Waste Disposal Method:** Dispose of in accordance with state or local regulations.

**Precautions To Be Taken In Handling And Storing:** Not applicable.

**Other Precautions:** Do not dispose of in storm drains or streams.

**SECTION VIII -- CONTROL MEASURES**

**Respiratory Protection (Specify Type):** Not normally required.

**Ventilation:**

**Local Exhaust =** Normally adequate **Mechanical (General) =** Recommended **Special =** N.A. **Other =** N.A.

**Protective Gloves:** None required with normal use. **Eye Protection:** Splash goggles where eye contact is likely.

**Other Protective Clothing or Equipment:** Not normally required.

**Work / Hygienic Practices:** Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling; wash clothing before reuse.

**SECTION IX - TRANSPORTATION INFORMATION**

**Applicable regulations:** DOT = no; IMCO = no; IATA = no

**Proper shipping name:** Cleaning compound

**UN No.:** not applicable **Limited Qty.:** not applicable **Hazard Class:** not applicable

**Labels required:** not required **DOT Exception:** not applicable

**EPA Hazardous waste/number code:** not listed

**Hazardous waste characteristics:**

**Ignitability =** not applicable; **Corrosivity =** not applicable; **Reactivity =** not applicable

**DISCLAIMER OF WARRANTIES**

**NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.**

**The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate.**

**THE BUYER OR USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE, MISUSE OR DISPOSAL OF THIS PRODUCT. THE BUYER OR USER IS RESPONSIBLE TO COMPLY WITH ALL FEDERAL, STATE OR LOCAL REGULATIONS CONCERNING THE USE, MISUSE OR DISPOSAL OF THESE PRODUCTS.**



## *Environmental Certification*

*Presented to*

### **HILLYARD INDUSTRIES, INC.**

Green Seal, Inc. certifies that the following products comply with or exceed Green Seal's Environmental Standard for General-Purpose, Bathroom, and Glass Cleaners Used for Industrial and Institutional Purposes (GS-37) and are licensed to use the Green Seal Certification Mark:

#140 Super Shine-All

#808 Super Shine-All

Certified this 17th day of December, 2002.

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Mark T. Petruzzi, Vice President, Certification

# HILLYARD ARSENAL®

## SUPROX®

### SUPER CONCENTRATED HYDROGEN PEROXIDE MULTI-PURPOSE CLEANER

#833



#### **Versatile Cleaning Power**

This versatile, highly concentrated multi-purpose cleaner contains stabilized Hydrogen peroxide and natural citrus solvents to provide highly effective cleaning for many surfaces including glass, restroom fixtures, tile and grout, counters, floors, and carpets. The Hydrogen peroxide formulation in Arsenal Suprox® also aids in brightening grout, enhancing the appearance of tiled surfaces.

#### **Environmentally Preferred**

When compared to traditional multi-purpose cleaners, Arsenal Suprox has been formulated for reduced toxicity to lessen the impact on environmental health, worker health, and building occupant health. Arsenal Suprox is a welcome addition to its Green Seal cleaning programs, and is part of the Hillyard Green Select® Program.

#### **Consolidates The Cleaning Process**

Consolidate multiple products within your cleaning process. Arsenal Suprox can save time, effort, and money by eliminating redundant products and simplifying the training process, resulting in an enhanced cleaning process.

#### **Professional Cleaning...By The Numbers**

The Arsenal line of products delivers Hillyard cleaning quality in an easy-to-dispense, easy-to-use family of products. Arsenal products are formulated for professional cleaning and are color-coded with large matching numbers on both the concentrated and ready-to-use container labels for easy mixing and use. Ask your Hillyard consultant about the complete line of Arsenal professional cleaning products. They are just another example of high quality from Hillyard.

#### **Arsenal® Dispensing And Packaging Options:**

##### **Arsenal Push Button Dispenser**

1 Gallon - 4 per case

Each gallon yields 26.6 gallons of RTU (ready-to-use) product

1/2 Gallon - 6 per case

Each 1/2 gallon yields 13.3 gallons of RTU (ready-to-use) product

##### **Dilution Rate:**

1:26 (5 ounces per gallon low flow)

1:128 (1 ounce per gallon high flow)

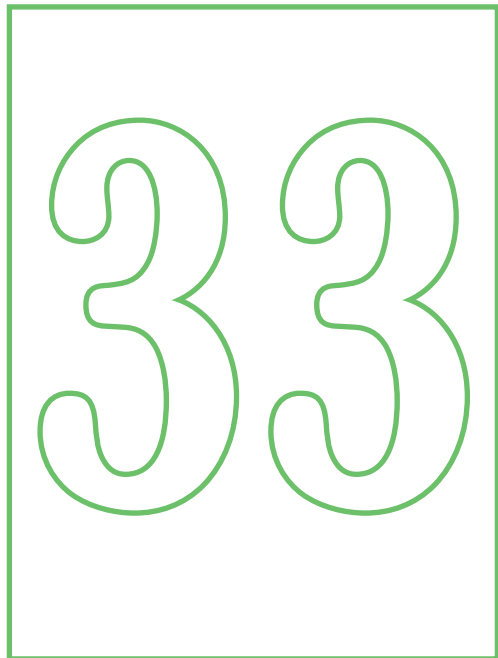


This product meets the Green Seal™ environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.

## HILLYARD

Cleaning Solutions Since 1907

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# SUPROX®

#833

## TECHNICAL DATA

### PHYSICAL PROPERTIES

- |  |   |
|--|---|
| 1. Color.....Slightly yellow to colorless                      | 11. Specific gravity at 25°C.....1.03       |
| 2. Fragrance.....Citrus  | 12. Weight / gallon.....8.55 lbs. (3.89 kg) |
| 3. Clarity.....Clear   |   |
| 4. Foreign matter.....None                                     | TEST METHODS                                |
| 5. Solubility in water.....Complete                            | 6. ASTM E70                                 |
| 6. pH.....3.5 – 4.5  | 7. ASTM D2834                               |
| 7. Nonvolatile matter.....5.0 +/- 0.5%                         | 10. ASTM D56                                |
| 8. Freeze/thaw stability (3 cycles).....Stable after agitation | 11. ASTM D891                               |
| 9. Heat stability at 125°F (52°C).....Stable                   | 12. ASTM D1475                              |
| 10. Flash point (T.C.C.).....155°F typical                     |   |

0105(#833)



## LABEL INFORMATION #833

# SUPROX®

**PEROXIDE CLEANER**

This versatile, highly concentrated multi-purpose cleaner contains stabilized Hydrogen peroxide and natural citrus solvents. In high flow dilution (1 oz.) good for floor and autoscrubber cleaning. In low flow (5 oz.) dilution, will clean glass, restroom fixtures, tile and grout, counters and carpets. Aids in brightening grout. Formulated for reduced toxicity to lessen the impact on environmental health, worker health, and building occupant health.

### DIRECTIONS FOR USE:

ARSENAL PUSH BUTTON DISPENSING SYSTEM: Remove shipping cap and attach adapter cap to the gallon of concentrate. Place into either wire rack or cabinet. Fill quart bottle and follow bottle directions.

ARSENAL JR. DISPENSING SYSTEM: Remove shipping cap and insert container into bottom of dispenser until it locks into place. Fill quart bottle and follow bottle directions.

**SPECIAL INSTRUCTIONS:** For use only with Hillyard Arsenal Dilution System. For best results use micro fiber cloth. To conserve energy always use cold tap water.

**NOTICE:** Do not use with ammonia or bleaches. Before carpet spotting, test product in an inconspicuous area to ensure compatibility.

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent), then offer clean, dry container for recycling or reconditioning.

 This product meets the Green Seal™ environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.

### DISCLAIMER OF WARRANTY

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

VOC (Concentrate) = 0.40%

HMIS Rating: Health = 1, 2, Flammability = 1, Reactivity = 1

## DANGER

**HARMFUL IF SWALLOWED – CAUSES EYE BURNS**

**MAY CAUSE SKIN IRRITATION – MAY CAUSE RESPIRATORY IRRITATION**

**CONTAINS:** HYDROGEN PEROXIDE (CAS #7722-84-1); WATER (CAS #7732-18-5). Do not get in eyes, on skin, and clothing. Do not ingest.

**FIRST AID:** Eye and Skin Contact: Flush eyes and skin with plenty of water for 15 minutes; apply water gently and do not rub area. If irritation persists, get medical attention. Seek immediate medical attention. If swallowed, do not induce vomiting. Seek immediate medical attention. If excess inhaled, remove to fresh air; if breathing is difficult seek medical attention.

**See Material Safety Data Sheet for additional information.**

**KEEP OUT OF REACH OF CHILDREN**



**MATERIAL SAFETY DATA SHEET**

**NFPA RATING:** Health = 2 Flammability = 1 Reactivity = 0

**HMIS RATING:** Health = /2 Flammability = 1 Reactivity = 1

**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION (1054B)**

**Manufacturer's Name:** HILLYARD INDUSTRIES

**Product Name:** ARSENAL SUPROX

**Address:** 302 North Fourth Street

**Date Prepared:** September 26, 2006

St. Joseph, MO 64501

**Prepared by:** Regulatory Affairs Department

**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

**Other information calls:** (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

**SECTION II – INGREDIENTS/IDENTITY INFORMATION****Components**

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Hydrogen Peroxide	7722-84-1	1.4 mg/m <sup>3</sup>	1.4 mg/m <sup>3</sup>	N.A.	5 - 8%
Water	7732-18-5	none	none	N.A.	---
Complex Surfactant Blend	68991-48-0 & 68439-46-3	not established	not established	N.A.	---

VOC (Concentrate) = 0.40%; VOC (min. dilution 1:10) = 0.04%

**SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**

<b>Boiling Point:</b>	217°F	<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	25°C = 1.02 & 39°C = 1.02
<b>Vapor Pressure (mm Hg.):</b>	17.6	<b>Percent Volatile by Volume (%):</b>	94.6%
<b>Vapor Density (AIR = 1):</b>	0.65	<b>Evaporation Rate (ethyl ether = 1):</b>	Slower than 1
<b>Solubility in Water:</b>	complete	<b>Appearance and Odor:</b>	Clear, colorless liquid, Citrus odor
<b>pH (concentrate) =</b>	4-5		

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA**

**Flash point:** >145°F corrected (T.C.C.) **Flammable Limits:** LEL = Not determined UEL = Not determined

**Extinguishing Media:** Do NOT use CO<sub>2</sub> extinguisher on this material: use only water spray or appropriate foam. Do not use organic compounds on this material.

**Special Fire Fighting Procedures:** As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Cool with water spray.

**Unusual Fire and Explosion Hazards:** Release of oxygen may support combustion. Contact with incompatible materials (e.g. metals, alkalis, and strong reducing agents) may cause hazardous decomposition resulting in the release of heat, steam, and oxygen. Exposure to heat may cause hazardous decomposition. Hydrogen peroxide may spontaneously decompose above 150°C. Do not mix with kerosene or gasoline.

**SECTION V – PHYSICAL HAZARDS**

**Stability:** Stable **Conditions to Avoid:** Heat and flame.

**Incompatibility (Materials to Avoid):** Metals, Reducing agents, Alkalis, Combustible materials, Organic materials, Salt of heavy metals, Impurities.

**Hazardous Decomposition Products or Byproducts:** Oxygen, oxides of carbon and steam.

**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** None known to Manufacturer

**SECTION VI – HEALTH HAZARD DATA**

**Routes of entry:** Inhalation? yes Skin? yes Ingestion? LD50 greater than 5 g/kg

**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Contact with concentrate may cause eye burns and prolonged skin contact with concentrate may cause slight skin irritation. Ingestion can cause nausea, vomiting and gastrointestinal irritation. Prolonged inhalation may cause respiratory irritation. Acute oral toxicity of concentrate per EPA method = >5000 mg./kg. Acute dermal irritation = Non-irritating. Toxicity Category IV per EPA Method. Tests show the product is not a skin sensitizer. Acute inhalation toxicity = LC50>2.13 mg./Liter.

2. None known to Hillyard Industries when used according to label directions.

**MATERIAL SAFETY DATA SHEET**

**NFPA RATING:** Health = 2 Flammability = 1 Reactivity = 0

**HMIS RATING:** Health = 2 Flammability = 1 Reactivity = 1

**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION (515N-26A)**

**Manufacturer's Name:** HILLYARD INDUSTRIES

**Product Name:** SUPROX

**Address:** 302 North Fourth Street

**Date Prepared:** July 17, 2006

St. Joseph, MO 64501

**Prepared by:** Regulatory Affairs Department

**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

**Other information calls:** (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

**SECTION II – INGREDIENTS/IDENTITY INFORMATION****Components**

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Hydrogen Peroxide	7722-84-1	1.4 mg/m <sup>3</sup>	1.4 mg/m <sup>3</sup>	N.A.	5 - 8%
Water	7732-18-5	none	none	N.A.	---
Complex Surfactant Blend	68991-48-0 & 68439-46-3	not established	not established	N.A.	---

VOC (Concentrate) = 0.40%; VOC (min. dilution 1:10) = 0.04%

**SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**

<b>Boiling Point:</b>	217°F	<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	25°C = 1.02 & 39°C = 1.02
<b>Vapor Pressure (mm Hg.):</b>	17.6	<b>Percent Volatile by Volume (%):</b>	94.6%
<b>Vapor Density (AIR = 1):</b>	0.65	<b>Evaporation Rate (ethyl ether = 1):</b>	Slower than 1
<b>Solubility in Water:</b>	complete	<b>Appearance and Odor:</b>	Clear, colorless liquid, Citrus odor
<b>pH (concentrate) =</b>	4-5		

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA**

**Flash point:** >145°F corrected (T.C.C.) **Flammable Limits:** LEL = Not determined UEL = Not determined

**Extinguishing Media:** Do NOT use CO<sub>2</sub> extinguisher on this material: use only water spray or appropriate foam. Do not use organic compounds on this material.

**Special Fire Fighting Procedures:** As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Cool with water spray.

**Unusual Fire and Explosion Hazards:** Release of oxygen may support combustion. Contact with incompatible materials (e.g. metals, alkalis, and strong reducing agents) may cause hazardous decomposition resulting in the release of heat, steam, and oxygen. Exposure to heat may cause hazardous decomposition. Hydrogen peroxide may spontaneously decompose above 150°C. Do not mix with kerosene or gasoline.

**SECTION V – PHYSICAL HAZARDS**

**Stability:** Stable **Conditions to Avoid:** Heat and flame.

**Incompatibility (Materials to Avoid):** Metals, Reducing agents, Alkalis, Combustible materials, Organic materials, Salt of heavy metals, Impurities.

**Hazardous Decomposition Products or Byproducts:** Oxygen, oxides of carbon and steam.

**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** None known to Manufacturer

**SECTION VI – HEALTH HAZARD DATA**

**Routes of entry:** Inhalation? yes Skin? yes Ingestion? LD50 greater than 5 g/kg

**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Contact with concentrate may cause eye burns and prolonged skin contact with concentrate may cause slight skin irritation. Ingestion can cause nausea, vomiting and gastrointestinal irritation. Prolonged inhalation may cause respiratory irritation. Acute oral toxicity of concentrate per EPA method = >5000 mg./kg. Acute dermal irritation = Non-irritating. Toxicity Category IV per EPA Method. Tests show the product is not a skin sensitizer. Acute inhalation toxicity = LC50>2.13 mg./Liter.

2. None known to Hillyard Industries when used according to label directions.

## SECTION VI – HEALTH HAZARD DATA continued

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

**Signs and Symptoms of Exposure:** Eye symptoms may occur with delay such as conjunctiva and burns; reaction may be delayed. Prolonged skin contact with concentrate may cause irritation. Inhalation of fine mist or aerosols can lead to irritation and inflammation of the respiratory tract and cause pulmonary edema. Symptoms may occur with delay. Swallowing can lead to irritation of the mucous membranes in the mouth, esophagus and stomach.

**Medical Conditions Generally Aggravated by Exposure:** Open cuts and sores may be irritated by contact.

**Emergency and First Aid Procedures:** Eye and Skin Contact – Flush eyes and skin with plenty of water for 15 minutes; apply water gently and do not rub area. For eyes seek medical attention immediately. For skin, if irritation persists, get medical attention. If swallowed, do not induce vomiting. Seek immediate medical attention. If excess inhaled, remove to fresh air; if breathing is difficult, seek medical attention.

## SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps To Be Taken In Case Material Is Released Or Spilled:** Small spills should be flushed with water and picked up with mop. Hydrogen peroxide quickly decomposes to oxygen and water.

**Waste Disposal Method:** Dispose of in accordance with state or local regulations.

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use. Since empty packages retain product residue, follow label warnings even after package is empty.

**Other Precautions:** Do not dispose of in storm drains or streams. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and 40 CFR Part 372.

## SECTION VIII – CONTROL MEASURES

**Respiratory Protection (Specify Type):** Not normally required with adequate ventilation.

**Ventilation:**

**Local Exhaust =** Normally adequate      **Mechanical (General) =** Recommended      **Special =** N/A      **Other =** N/A

**Protective Gloves:** Impervious gloves (neoprene or rubber) with concentrate. **Eye Protection:** Splash goggles with concentrate.

**Other Protective Clothing or Equipment:** Avoid prolonged contact. Wear clothing to prevent contact with concentrate if necessary. Eye wash, safety shower to be available when working with concentrate.

**Work / Hygienic Practices:** Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling; wash clothing before reuse. Completely submerge contaminated clothing or other materials in water prior to drying.

## SECTION IX – TRANSPORTATION INFORMATION

**Applicable regulations:** 49 CFR = no; IMCO = no; IATA = no

**Proper shipping name:** Cleaning compound

**UN NO.:** not applicable      **Limited Qty.:** not applicable      **Hazard Class =** not applicable

**Labels required:** not required      **DOT Exception:** not applicable

**EPA Hazardous waste number / code:** not listed

**Hazardous waste characteristics:** **Ignitability:** not applicable; **Corrosivity:** not applicable; **Reactivity:** not applicable

### DISCLAIMER OF WARRANTIES

**NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.**

**The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate.**

**THE BUYER OR USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE, MISUSE OR DISPOSAL OF THIS PRODUCT. THE BUYER OR USER IS RESPONSIBLE TO COMPLY WITH ALL FEDERAL, STATE OR LOCAL REGULATIONS CONCERNING THE USE, MISUSE OR DISPOSAL OF THESE PRODUCTS.**

## SECTION VI – HEALTH HAZARD DATA continued

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

**Signs and Symptoms of Exposure:** Eye symptoms may occur with delay such as conjunctiva and burns; reaction may be delayed. Prolonged skin contact with concentrate may cause irritation. Inhalation of fine mist or aerosols can lead to irritation and inflammation of the respiratory tract and cause pulmonary edema. Symptoms may occur with delay. Swallowing can lead to irritation of the mucous membranes in the mouth, esophagus and stomach.

**Medical Conditions Generally Aggravated by Exposure:** Open cuts and sores may be irritated by contact.

**Emergency and First Aid Procedures:** Eye and Skin Contact – Flush eyes and skin with plenty of water for 15 minutes; apply water gently and do not rub area. For eyes seek medical attention immediately. For skin, if irritation persists, get medical attention. If swallowed, do not induce vomiting. Seek immediate medical attention. If excess inhaled, remove to fresh air; if breathing is difficult, seek medical attention.

## SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps To Be Taken In Case Material Is Released Or Spilled:** Small spills should be flushed with water and picked up with mop. Hydrogen peroxide quickly decomposes to oxygen and water.

**Waste Disposal Method:** Dispose of in accordance with state or local regulations.

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use. Since empty packages retain product residue, follow label warnings even after package is empty.

**Other Precautions:** Do not dispose of in storm drains or streams. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and 40 CFR Part 372.

## SECTION VIII – CONTROL MEASURES

**Respiratory Protection (Specify Type):** Not normally required with adequate ventilation.

**Ventilation:**

**Local Exhaust =** Normally adequate **Mechanical (General) =** Recommended **Special =** N/A **Other =** N/A

**Protective Gloves:** Impervious gloves (neoprene or rubber) with concentrate. **Eye Protection:** Splash goggles with concentrate.

**Other Protective Clothing or Equipment:** Avoid prolonged contact. Wear clothing to prevent contact with concentrate if necessary. Eye wash, safety shower to be available when working with concentrate.

**Work / Hygienic Practices:** Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling; wash clothing before reuse. Completely submerge contaminated clothing or other materials in water prior to drying.

## SECTION IX – TRANSPORTATION INFORMATION

**Applicable regulations:** 49 CFR = no; IMCO = no; IATA = no

**Proper shipping name:** Cleaning compound

**UN NO.:** not applicable **Limited Qty.:** not applicable **Hazard Class =** not applicable

**Labels required:** not required **DOT Exception:** not applicable

**EPA Hazardous waste number / code:** not listed

**Hazardous waste characteristics:** **Ignitability:** not applicable; **Corrosivity:** not applicable; **Reactivity:** not applicable

### DISCLAIMER OF WARRANTIES

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## *Environmental Certification*

*Presented to*

### **HILLYARD INDUSTRIES, INC.**

Green Seal, Inc. certifies that the following product complies with or exceeds Green Seal's Environmental Standard for General-Purpose, Bathroom, and Glass Cleaners Used for Industrial and Institutional Purposes (GS-37) and is licensed to use the Green Seal Certification Mark:

#833 Arsenal Suprox Concentrate

*(Specific pack sizes listed in certification letter)*

Certified this 15th day of April, 2005.

---

Mark T. Petruzzi, Vice President of Certification

HILLYARD  
**ARSENAL<sup>®</sup>**

# GREEN SELECT™ DEGREASER CLEANER

# 28

## *Environmentally Preferred Degreaser Cleaner*

Green Select Degreaser Cleaner is formulated to be non-toxic, phosphate free, biodegradable, nonflammable, and without dye, fragrance, or hazardous ingredients\*. Hillyard Green Select products are formulated to minimize the impact on the environment, reduce the risk to human health, and at the same time improve worker safety.

\*per 29 CFR 1910 1200

## *Effective Cleaning*

Green Select Degreaser Cleaner will clean walls, kitchen floors, resilient tile, tables, and machinery. It will remove tough, greasy soil from any surface not harmed by water. By using a unique combination of environmentally preferred surfactants in its formula, better cleaning efficiency is achieved. Its formula is effective with cold water, which is better for the environment because it allows for less energy usage.

## *Lower Environmental Impact*

No volatile organic compounds, no fragrance, and no dye means Green Select Degreaser Cleaner has a positive effect for good indoor air quality. No phosphates and biodegradable means it has a lower impact on the environment than many comparable degreasers.

## *Professional Cleaning...By The Numbers*

The Arsenal line of products delivers Hillyard cleaning quality in an easy to dispense, easy to use family of products. Arsenal products are formulated for professional cleaning and are color coded with large matching numbers on both the concentrated and ready to use container labels for easy mixing and use. Ask your Hillyard consultant about the complete line of Arsenal professional cleaning products. They are just another example of high quality from Hillyard.

## *Arsenal® Dispensing And Packaging Options:*

### *Arsenal Push Button Dispenser*

1 Gallon - 4 per case

Each gallon yields 13.8 gallons of RTU (ready-to-use) product

1/2 Gallon - 6 per case

Each 1/2 gallon yields 6.9 gallons of RTU (ready-to-use) product

### *Dilution Rate:*

1:12 (10 ounces per gallon)



This product meets Green Seal's environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.

**HILLYARD**

Cleaning Solutions Since 1907

# GREEN SELECT™ DEGREASER CLEANER

#828

# 28

## TECHNICAL DATA

### PHYSICAL PROPERTIES

1. Color .....	Colorless	12. Volatile organic compounds .....	0.5% (concentrate)
2. Odor .....	Citrus	13. Cleaning effectiveness .....	Excellent
3. Foreign matter .....	None	14. Flash point (TCC) .....	None to 200°F
4. Nonvolatile matter, 3 hrs. @ 105°C .....	10.5 - 12.0%		
5. pH, 25°C .....	7 +/- 0.5		
6. Specific gravity, 25°C/25°C .....	1.046		
7. Weight per gallon, 25°C .....	8.71 lbs. (3.92 kg)		
8. Water solubility .....	Complete		
9. Phosphates .....	None		
10. Freeze-thaw (3 cycles) .....	Stable		
11. Freezing point .....	30°F		

### TEST METHODS

4. ASTM D460
6. ASTM D891
7. ASTM D1475
12. ASTM D3960
14. ASTM D56

0405(#828)

HILLYARD  
**ARSENAL**®

## LABEL INFORMATION #828

# GREEN SELECT™ DEGREASER CLEANER

## CONCENTRATED HEAVY DUTY CLEANER FOR ALL SURFACES

Contains No Hazardous Ingredients\* - Non-Toxic, Phosphate Free, Biodegradable, Non-Flammable, No Fragrance, No Dye  
\*per 29 CFR 1910.1200

Cleans walls, kitchen floors, resilient tile, tables, and machinery. Will remove tough, greasy soil from any surface not harmed by water. Can be applied with a mop, spray bottle, automatic scrubber, or pressure washer.

### DIRECTIONS FOR USE:

- **ARSENAL PUSH BUTTON DISPENSING SYSTEM:** For use with Hillyard Arsenal Push Button Dispensers. Remove shipping cap and attach adapter cap to the one gallon of concentrate. Place into either wire rack or cabinet. Dispense diluted product into a quart spray bottle, mop bucket, or auto-scrubber.
- **ARSENAL JR. DISPENSING SYSTEM:** Remove shipping cap and insert one-half gallon container into bottom of unit until it locks into place.

**SPECIAL INSTRUCTIONS:** For use only with Hillyard Arsenal Dilution System. When used on sensitive electrical equipment always spray on paper towel or clean cloth and then wipe area to be cleaned. Use trigger sprayer, holding 6-8 inches from surface. For best results use micro fiber cloth. To conserve energy always use cold tap water.

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer clean, dry container for recycling or reconditioning.

### DISCLAIMER OF WARRANTY

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

**VOC of concentrate = 0.5%**

**HMIS Rating:** Health = 1, Flammability = 0, Reactivity = 0

## CAUTION

### MAY PRODUCE EYE OR SKIN IRRITATION

**CONTAINS:** WATER (CAS #7732-18-5); ALKYL POLYGLUCOSIDE MIXTURE (CAS #68515-73-1 & 110615-47-9); SODIUM CITRATE (CAS #68-04-2). Do not take internally. Avoid contact with eyes and skin. Keep container closed. Wash thoroughly after handling.

**FIRST AID: Eye and skin contact:** Flush with water for 15 minutes; remove contact lenses and flush eyes again with water. If eye irritation persists get medical attention. **If swallowed:** Call a physician, hospital emergency room, or poison control center immediately; induce vomiting.

**See Material Safety Data Sheet for additional information.**

### KEEP OUT OF REACH OF CHILDREN

0104

**MATERIAL SAFETY DATA SHEET****NFPA RATING:** Health = 1 Flammability = 0 Reactivity = 0**HMIS RATING:** Health = /1 Flammability = 0 Reactivity = 0**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION (1160A)****Manufacturer's Name:** HILLYARD INDUSTRIES**Product Name:** ARSENAL GREEN SELECT  
DEGREASER CLEANER**Address:** 302 North Fourth Street  
St. Joseph, MO 64501**Date Prepared:** May 9, 2008**Prepared by:** Regulatory Affairs Department**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)**Other information calls:** (816) 233-1321 (Ext. 8285)<http://www.hillyard.com>**SECTION II – INGREDIENTS/IDENTITY INFORMATION****Components****(Specific Chemical Identity:**

<b>Common Name(s)</b>	<b>CAS#</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>	<b>OTHER LIMITS RECOMMENDED</b>	<b>%</b>
Water	7732-18-5	none	none	N/A	---
Alkyl polyglucoside mixture	68515-73-1 & 110615-47-9	not established	not established	N/A	---
Sodium Citrate	68-04-2	not established	not established	N/A	

VOC Concentrate = 46.8 g/l.; VOC (concentrate) 0.5%; VOC (Min. dilution) 0.04%

**SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**

**Boiling Point:** 208°F      **Specific Gravity (H<sub>2</sub>O = 1):** 25°C = 1.05 & 39°C = 1.05  
**Vapor Pressure (mm Hg.):** 17.5      **Percent Volatile by Volume (%):** 88.97  
**Vapor Density (AIR = 1):** 0.6      **Evaporation Rate (ethyl ether = 1):** slower than 1  
**Solubility in Water:** complete      **Appearance and Odor:** Amber-brown liquid; citrus odor  
**pH (concentrate) =** 7.1

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA****Flash point:** None to 200°F (T.C.C.)      **Flammable Limits:** LEL = N/A      UEL = N/A**Extinguishing Media:** Water spray, Carbon Dioxide, Dry Chemical, Foam**Special Fire Fighting Procedures:** Wear a self-contained breathing apparatus, goggles and nitrile or rubber gloves with concentrate.**Unusual Fire and Explosion Hazards:** None known to manufacturer.**SECTION V – PHYSICAL HAZARDS****Stability:** Stable      **Conditions to Avoid:** None known to Hillyard**Incompatibility (Materials to Avoid):** Strong oxidizing materials, strong acids and strong bases.**Hazardous Decomposition Products or Byproducts:** As with any organic material, combustion will produce carbon dioxide and probably carbon monoxide.**Hazardous Polymerization:** Will not occur      **Conditions to Avoid:** None known**SECTION VI – HEALTH HAZARD DATA****Routes of entry:** Inhalation? no    Eye? yes    Skin? no    Ingestion? no**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. When tested per the Federal Hazardous Substance Act method 16 CFR 1500 concentrated product was not a skin irritant; per the FHSA method 16 CFR 1500 the concentrated product was an eye irritant. The concentrated product was not acutely toxic (oral) to rats at 5 gm/kg. per upper limit test. Acute inhalation = 1 hour upper limit test was not able to test because product foamed too much to dose by a mist.

2. None known to Hillyard.



**SECTION VI – HEALTH HAZARD DATA continued**

**Chemical listed as Carcinogen or Potential Carcinogen:**

**National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No**

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

**Signs and Symptoms of Exposure:** Overexposure may cause drowsiness, headache and uncoordination.

**Medical Conditions Generally Aggravated by Exposure:** None known by manufacturer.

**Emergency and First Aid Procedures:** Eye and skin contact: Flush with plenty of water for 15 minutes; remove contact lenses and flush eyes again with water. If eye irritation persists get medical attention. If swallowed: Call a physician, hospital emergency room or poison control center immediately; induce vomiting.

**SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE**

**Steps To Be Taken In Case Material Is Released Or Spilled:** Absorb large spills with floor dry material. Small spills: Flush with water and pick up with mop.

**Waste Disposal Method:** Dispose of in accordance with state and local regulations.

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use.

**Other Precautions:** Do not take internally.

**SECTION VIII – CONTROL MEASURES**

**Respiratory Protection (Specify Type):** None required.

**Ventilation:** Follow good engineering practices for public areas.

**Local Exhaust = N/A Mechanical (General) = Recommended Special = N/A Other = N/A**

**Protective Gloves: N/A Eye Protection:** Goggles only where splashing of concentrate is a concern.

**Other Protective Clothing or Equipment:** N/A

**Work / Hygienic Practices:** Wash thoroughly after handling.

**SECTION IX – TRANSPORTATION INFORMATION**

**Applicable regulations:** CFR = No IMCO = No IATA = No.

**Proper shipping name for air, foreign water for highway:** Cleaning compound

**UN No.:** not applicable for highway **Limited Qty.:** not applicable **Hazard class:** not applicable for highway

**Labels required:** not required for highway **DOT Exception:** not applicable

**EPA Hazardous waste characteristics:**

**Ignitability =** Not applicable; **Corrosivity =** Not applicable; **Reactivity =** Not applicable.

**DISCLAIMER OF WARRANTIES**

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## *Environmental Certification*

*Presented to*

### **HILLYARD INDUSTRIES, INC.**

Green Seal, Inc. certifies that the following products comply with or exceed Green Seal's Environmental Standard for General-Purpose, Bathroom, and Glass Cleaners Used for Industrial and Institutional Purposes (GS-37) and are licensed to use the Green Seal Certification Mark:

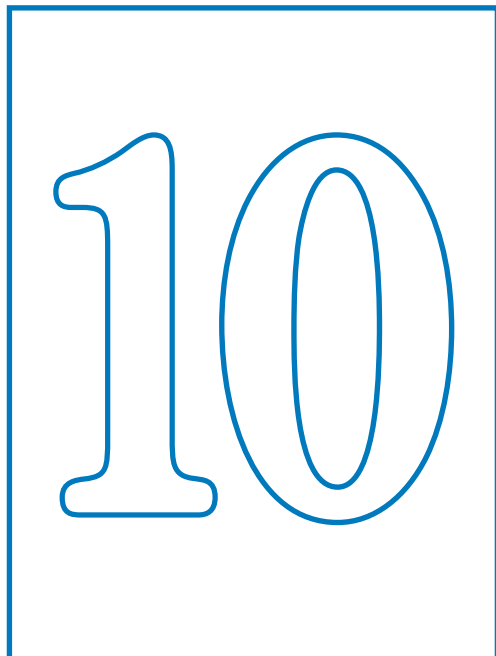
#827 Arsenal Green Select Glass Cleaner / #960 Green Select Glass Cleaner

#828 Arsenal Green Select Degreaser / #961 Green Select Degreaser

#829 Arsenal Green Select Bathroom Cleaner / #962 Green Select Bathroom Cleaner

Certified this 8th day of December, 2003.

Mark T. Petruzzi, Vice President of Certification



## TECHNICAL DATA

### PHYSICAL PROPERTIES

1. Color .....	Blue	12. Freeze-thaw (3 cycles) .....	Stable
2. Clarity .....	Clear	13. Freezing point .....	< 28°F
3. Odor .....	Clean / Pleasant	14. Rinsing Properties .....	Excellent
4. Foreign matter .....	None	15. Cleaning effectiveness .....	Excellent
5. Nonvolatile matter, 3 hrs. @ 105°C ....	11.0 - 12.0%	16. Flash point (TCC) .....	None to 200°F
6. Viscosity, Brookfield, 25°C .....	50 cps		
7. pH, 25°C .....	7 - 9	<b>TEST METHODS</b>	
8. Specific gravity, 25°C/25°C .....	1.011	5. ASTM D460	
9. Weight per gallon, 25°C .....	8.70 lbs (3.91 kg)	8. ASTM D891	
10. Water solubility .....	Complete	9. ASTM D1475	
11. Phosphates .....	None	16. ASTM D56	



## LABEL INFORMATION #810



### DIRECTIONS FOR USE:

- **ARSENAL PUSH BUTTON DISPENSING SYSTEM:** Remove shipping cap and attach adapter cap to the one gallon of concentrate. Place into either wire rack or cabinet. Fill mop bucket to desired level.
- **ARSENAL JUNIOR DISPENSING SYSTEM:** Remove shipping cap and insert container into bottom of dispenser until it locks into place. Fill quart bottle and follow bottle directions.
- **ARSENAL HIL-PAC PREMEASURED POUCH:** Empty contents of pouch into 4 gallons of water in a mop bucket.

**NOTICE:** For use only with Hillyard Arsenal Dilution System.

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer clean, dry container for recycling or reconditioning.



FLOOR COATING AND FINISHING MATERIAL AS TO SLIP RESISTANCE ONLY. 186S

### DISCLAIMER OF WARRANTY

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

**HMIS Rating: Health = / 2, Flammability = 0, Reactivity = 0**

## DANGER

### HARMFUL IF SWALLOWED — CAUSES EYE BURNS AND SKIN IRRITATION

**CONTAINS:** WATER (CAS #7732-18-5); ALKOXYLATED LINEAR ALCOHOL (CAS #37251-67-5); SODIUM XYLENE SULFONATE (CAS #1300-72-7). **Corrosive.** Do not take internally. Do not get in eyes, on skin, or clothing. **USE ONLY WITH ADEQUATE VENTILATION.** Do not breathe spray mist. (Inhalation of fine fog mist can cause irritation of mucous membranes.) Keep container closed when not in use. Wash thoroughly after handling. Use splash goggles.

**FIRST AID:** In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. GET MEDICAL ATTENTION IMMEDIATELY. Wash clothing before reuse. If skin irritation persists get medical attention. If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

**See Material Safety Data Sheet for additional information.**

### KEEP OUT OF REACH OF CHILDREN

HILLYARD  
**ARSENAL®**  
**TOP CLEAN®**

#810



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**Proven Effective**

Arsenal® Top Clean® is a time-proven, concentrated, fast-acting synthetic cleaner formulated to effectively remove soil yet leave the shine. It is specially formulated for cleaning professionals who frequently auto-scrub.

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**Removes Dirt...Not The Shine**

Top Clean has built-in defoamers making it ideal for damp mopping or use in an auto-scrubber. It has excellent cleaning efficiency in hard or soft, hot or cold water. Top Clean has a neutral pH so it won't harm your floor or the floor finish.

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**Versatile...Phosphate Free**

Top Clean is also an effective cleaner for walls, ceilings, mirrors, windows, and metal surfaces not harmed by water. It is NSF authorized in Category C-1, and is phosphate-free. Plus, it is UL classified as to slip resistance. This product is under the Ner Tamid "K" Kosher Supervision and is kosher.

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**Professional Cleaning...By The Numbers**

The Arsenal line of products delivers Hillyard cleaning quality in an easy-to-dispense, easy-to-use family of products. Arsenal products are formulated for professional cleaning and are color coded with large matching numbers on both the concentrated and ready-to-use container labels for easy mixing and use. Ask your Hillyard sales consultant about the complete line of Arsenal professional cleaning products. They are just another example of high quality from Hillyard.

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**Arsenal® Dispensing And Packaging Options:**

**Arsenal Push Button Dispenser**

1 Gallon - 4 per case

Each gallon yields 257 gallons of RTU (ready-to-use) product

1/2 Gallon - 6 per case

Each 1/2 gallon yields 128.5 gallons of RTU (ready-to-use) product

**Arsenal Hil-Pac® Premeasured Pouch**

1 oz. Pouch - 72 per case (Each pouch yields 2 gallons of RTU product)

2 oz. Pouch - 72 per case (Each pouch yields 4 gallons of RTU product)

**Dilution Rate:**

1:256 (1/2 ounce per gallon)

**HILLYARD**

Cleaning Solutions Since 1907

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**MATERIAL SAFETY DATA SHEET**

**NFPA RATING:** Health = 1, Flammability = 0, Reactivity = 0

**HMIS RATING:** Health = /,1, Flammability = 0, Reactivity = 0

**SECTION I - IDENTITY AND MANUFACTURER'S INFORMATION (538N-97A)**

**Manufacturer's Name:** HILLYARD INDUSTRIES

**Product Name:** TOP CLEAN

**Address:** 302 North Fourth Street

**Date Prepared:** October 1, 2007

St. Joseph, MO 64502

**Prepared by:** Regulatory Affairs Department

**Emergency Telephone No.:** CHEMTREC (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

**Other information calls:** (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

**SECTION II - INGREDIENTS/IDENTITY INFORMATION**

Components (Specific Chemical Identity: Common Name(s))	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Water	7732-18-5	none	none	N.A.	---
Alcohol ethoxylate	68584-22-5	not est.	not est.	N.A.	---
Bouquet Fragrance	Trade Secret	not est.	not est.	N.A.	---

VOC (concentrate) = 0%; VOC (Min. Dilution) = 0%

**SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS**

**Boiling point:** 200°F

**Specific Gravity (H<sub>2</sub>O):** 25°F = 1.00; 39°F = 1.00

**Vapor Pressure (mm Hg.):** 17.5

**Percent Volatile by Volume (%):** 96.6%

**Vapor Density (Air = 1):** 0.6

**Evaporation Rate (Ethyl ether = 1):** slower than 1

**Solubility in Water:** Complete

**Appearance and odor:** Clear, yellow liquid, floral odor

**pH (Conc.) =** 9.3

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

**Flash point:** None. (T.C.C.)

**Flammable Limits:** LEL = N.A. UEL = N.A.

**Extinguishing Media:** Water, Carbon dioxide, Dry chemical or foam.

**Special Fire Fighting Procedures:** Normal fire fighting procedures may be used. Cool and cautiously approach or handle fire exposed containers.

**Unusual Fire and Explosion Hazards:** No special hazards known.

**SECTION V - PHYSICAL HAZARDS**

**Stability:** Stable **Conditions to Avoid:** N.A.

**Incompatibility (Materials to Avoid):** None known to Hillyard.

**Hazardous Decomposition Products or Byproducts:** When exposed to fire, produces normal products of combustion.

**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** None known to Hillyard.

**SECTION VI - HEALTH HAZARD DATA**

**Routes of entry:** Inhalation? no

Skin? yes

Ingestion? no

**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. According to Primary Skin Irritation Test (FHSA), product concentrate is not considered to be a primary irritant. Eye Irritation Test (FHSA) of sample = primary eye irritant. Not a skin sensitizer. Not acutely oral toxic at 5 gm./kg. When tested as specified this product was not considered to be a UN/DOT corrosive at 4 hours. Not acute toxic by inhalation at 216 mg/l.

2. None known to Hillyard.

**Chemical listed as Carcinogen or Potential Carcinogen:**

National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No

### HEALTH HAZARDS DATA continued

**Signs and Symptoms of Exposure:** Concentrate irritating to the eye. Frequent or prolonged contact with eye may cause irritation.

**Medical Conditions Generally Aggravated by Exposure:**

None known to manufacturer.

**Emergency and First Aid Procedures:**

In case of contact immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, get medical attention.

### SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps To Be Taken In Case Material Is Released Or Spilled:**

Floors may become slippery with standing liquid. Rinse spill area with water after pick up with wet vac or mop.

**Waste Disposal Method:**

No special method. Observe all applicable Federal, State, and Local requirements regarding disposal of non-hazardous materials. Waste from normal product use may be sewer to a public owned treatment works (POTW) in compliance with applicable Federal, State, and local pretreatment requirements. Container disposal: Triple rinse (or equivalent) then offer clean, dry container for recycling or reconditioning.

**Precautions To Be Taken In Handling And Storing:**

Freezing of product may rupture container. Product shelf life is best retained by storage at 45° - 100°F.

**Other Precautions:**

Do not take internally. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning & Community Right to Know Act of 1986 and 40 CFR Part 372.

### SECTION VIII - CONTROL MEASURES

**Respiratory Protection (Specify Type):** N.A.

**Ventilation:** Not required with normal method of use.

**Local Exhaust = N.A. Mechanical (General) = N.A. Special = N.A. Other = N.A.**

**Protective Gloves:** None necessary when following label directions.

**Eye Protection:** Chemical splash goggles where there is a potential for eye contact.

**Other Protective Clothing or Equipment:** Not needed.

**Work / Hygienic Practices:** Wash thoroughly after handling.

### SECTION IX - TRANSPORTATION INFORMATION

**Applicable regulations:** 49 CFR = no; IMCO = no; IATA = no

**Proper shipping name:** Cleaning compound

**UN No.:** not applicable **Limited Qty.:** not applicable **Hazard Class:** not applicable

**Labels required:** not required **DOT Exception:** not applicable

**EPA Hazardous waste number / code:** not listed

**Hazardous waste characteristics:**

**Ignitability =** not applicable; **Corrosivity =** not applicable; **Reactivity =** not applicable.

#### DISCLAIMER OF WARRANTIES

**NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.**

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# *Environmental Certification*

*Presented to*

**HILLYARD INDUSTRIES, INC.**

Green Seal, Inc. certifies that the following products comply with or exceed Green Seal's Environmental Standard for General-Purpose, Bathroom, Glass, and Carpet Cleaners Used for Industrial and Institutional Purposes (GS-37) and are licensed to use the Green Seal Certification Mark:

#144 Top Clean  
#706 C2 Top Clean

*(Specific pack sizes listed in certification letter)*

Certified this 14th day of December, 2007.

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Mark T. Petruzzi, Vice President of Certification

3

Bathroom Cleaners



# HILLYARD ARSENAL®

## SUPROX®

### SUPER CONCENTRATED HYDROGEN PEROXIDE MULTI-PURPOSE CLEANER

#833



#### **Versatile Cleaning Power**

This versatile, highly concentrated multi-purpose cleaner contains stabilized Hydrogen peroxide and natural citrus solvents to provide highly effective cleaning for many surfaces including glass, restroom fixtures, tile and grout, counters, floors, and carpets. The Hydrogen peroxide formulation in Arsenal Suprox® also aids in brightening grout, enhancing the appearance of tiled surfaces.

#### **Environmentally Preferred**

When compared to traditional multi-purpose cleaners, Arsenal Suprox has been formulated for reduced toxicity to lessen the impact on environmental health, worker health, and building occupant health. Arsenal Suprox is a welcome addition to its Green Seal cleaning programs, and is part of the Hillyard Green Select® Program.

#### **Consolidates The Cleaning Process**

Consolidate multiple products within your cleaning process. Arsenal Suprox can save time, effort, and money by eliminating redundant products and simplifying the training process, resulting in an enhanced cleaning process.

#### **Professional Cleaning...By The Numbers**

The Arsenal line of products delivers Hillyard cleaning quality in an easy-to-dispense, easy-to-use family of products. Arsenal products are formulated for professional cleaning and are color-coded with large matching numbers on both the concentrated and ready-to-use container labels for easy mixing and use. Ask your Hillyard consultant about the complete line of Arsenal professional cleaning products. They are just another example of high quality from Hillyard.

#### **Arsenal® Dispensing And Packaging Options:**

##### **Arsenal Push Button Dispenser**

1 Gallon - 4 per case

Each gallon yields 26.6 gallons of RTU (ready-to-use) product

1/2 Gallon - 6 per case

Each 1/2 gallon yields 13.3 gallons of RTU (ready-to-use) product

##### **Dilution Rate:**

1:26 (5 ounces per gallon low flow)

1:128 (1 ounce per gallon high flow)

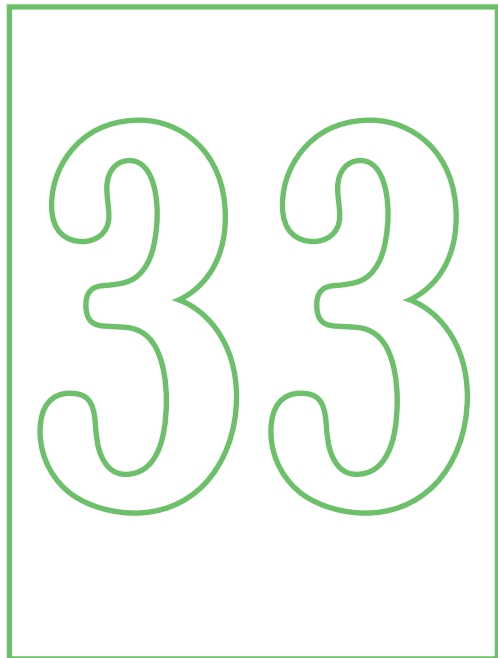


This product meets the Green Seal™ environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.

## HILLYARD

Cleaning Solutions Since 1907

© 2008, Hillyard, Inc., "CHECKERBOARD" Trademark ©



# SUPROX®

#833

## TECHNICAL DATA

### PHYSICAL PROPERTIES

- |  |   |
|--|---|
| 1. Color.....Slightly yellow to colorless                      | 11. Specific gravity at 25°C.....1.03       |
| 2. Fragrance.....Citrus  | 12. Weight / gallon.....8.55 lbs. (3.89 kg) |
| 3. Clarity.....Clear   |   |
| 4. Foreign matter.....None                                     | TEST METHODS                                |
| 5. Solubility in water.....Complete                            | 6. ASTM E70                                 |
| 6. pH.....3.5 – 4.5  | 7. ASTM D2834                               |
| 7. Nonvolatile matter.....5.0 +/- 0.5%                         | 10. ASTM D56                                |
| 8. Freeze/thaw stability (3 cycles).....Stable after agitation | 11. ASTM D891                               |
| 9. Heat stability at 125°F (52°C).....Stable                   | 12. ASTM D1475                              |
| 10. Flash point (T.C.C.).....155°F typical                     |   |

0105(#833)



## LABEL INFORMATION #833

# SUPROX®

**PEROXIDE CLEANER**

This versatile, highly concentrated multi-purpose cleaner contains stabilized Hydrogen peroxide and natural citrus solvents. In high flow dilution (1 oz.) good for floor and autoscrubber cleaning. In low flow (5 oz.) dilution, will clean glass, restroom fixtures, tile and grout, counters and carpets. Aids in brightening grout. Formulated for reduced toxicity to lessen the impact on environmental health, worker health, and building occupant health.

### DIRECTIONS FOR USE:

ARSENAL PUSH BUTTON DISPENSING SYSTEM: Remove shipping cap and attach adapter cap to the gallon of concentrate. Place into either wire rack or cabinet. Fill quart bottle and follow bottle directions.

ARSENAL JR. DISPENSING SYSTEM: Remove shipping cap and insert container into bottom of dispenser until it locks into place. Fill quart bottle and follow bottle directions.

**SPECIAL INSTRUCTIONS:** For use only with Hillyard Arsenal Dilution System. For best results use micro fiber cloth. To conserve energy always use cold tap water.

**NOTICE:** Do not use with ammonia or bleaches. Before carpet spotting, test product in an inconspicuous area to ensure compatibility.

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent), then offer clean, dry container for recycling or reconditioning.

 This product meets the Green Seal™ environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.

### DISCLAIMER OF WARRANTY

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

VOC (Concentrate) = 0.40%

HMIS Rating: Health = 1/2, Flammability = 1, Reactivity = 1

## DANGER

**HARMFUL IF SWALLOWED – CAUSES EYE BURNS**

**MAY CAUSE SKIN IRRITATION – MAY CAUSE RESPIRATORY IRRITATION**

**CONTAINS:** HYDROGEN PEROXIDE (CAS #7722-84-1); WATER (CAS #7732-18-5). Do not get in eyes, on skin, and clothing. Do not ingest.

**FIRST AID:** Eye and Skin Contact: Flush eyes and skin with plenty of water for 15 minutes; apply water gently and do not rub area. If irritation persists, get medical attention. Seek immediate medical attention. If swallowed, do not induce vomiting. Seek immediate medical attention. If excess inhaled, remove to fresh air; if breathing is difficult seek medical attention.

**See Material Safety Data Sheet for additional information.**

**KEEP OUT OF REACH OF CHILDREN**

**MATERIAL SAFETY DATA SHEET**

**NFPA RATING:** Health = 2 Flammability = 1 Reactivity = 0

**HMIS RATING:** Health = 2 Flammability = 1 Reactivity = 1

**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION (1054B)**

**Manufacturer's Name:** HILLYARD INDUSTRIES

**Product Name:** ARSENAL SUPROX

**Address:** 302 North Fourth Street

**Date Prepared:** September 26, 2006

St. Joseph, MO 64501

**Prepared by:** Regulatory Affairs Department

**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

**Other information calls:** (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

**SECTION II – INGREDIENTS/IDENTITY INFORMATION****Components**

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Hydrogen Peroxide	7722-84-1	1.4 mg/m <sup>3</sup>	1.4 mg/m <sup>3</sup>	N.A.	5 - 8%
Water	7732-18-5	none	none	N.A.	---
Complex Surfactant Blend	68991-48-0 & 68439-46-3	not established	not established	N.A.	---

VOC (Concentrate) = 0.40%; VOC (min. dilution 1:10) = 0.04%

**SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**

<b>Boiling Point:</b>	217°F	<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	25°C = 1.02 & 39°C = 1.02
<b>Vapor Pressure (mm Hg.):</b>	17.6	<b>Percent Volatile by Volume (%):</b>	94.6%
<b>Vapor Density (AIR = 1):</b>	0.65	<b>Evaporation Rate (ethyl ether = 1):</b>	Slower than 1
<b>Solubility in Water:</b>	complete	<b>Appearance and Odor:</b>	Clear, colorless liquid, Citrus odor
<b>pH (concentrate) =</b>	4-5		

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA**

**Flash point:** >145°F corrected (T.C.C.) **Flammable Limits:** LEL = Not determined UEL = Not determined

**Extinguishing Media:** Do NOT use CO<sub>2</sub> extinguisher on this material: use only water spray or appropriate foam. Do not use organic compounds on this material.

**Special Fire Fighting Procedures:** As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Cool with water spray.

**Unusual Fire and Explosion Hazards:** Release of oxygen may support combustion. Contact with incompatible materials (e.g. metals, alkalis, and strong reducing agents) may cause hazardous decomposition resulting in the release of heat, steam, and oxygen. Exposure to heat may cause hazardous decomposition. Hydrogen peroxide may spontaneously decompose above 150°C. Do not mix with kerosene or gasoline.

**SECTION V – PHYSICAL HAZARDS**

**Stability:** Stable **Conditions to Avoid:** Heat and flame.

**Incompatibility (Materials to Avoid):** Metals, Reducing agents, Alkalis, Combustible materials, Organic materials, Salt of heavy metals, Impurities.

**Hazardous Decomposition Products or Byproducts:** Oxygen, oxides of carbon and steam.

**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** None known to Manufacturer

**SECTION VI – HEALTH HAZARD DATA**

**Routes of entry:** Inhalation? yes Skin? yes Ingestion? LD50 greater than 5 g/kg

**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Contact with concentrate may cause eye burns and prolonged skin contact with concentrate may cause slight skin irritation. Ingestion can cause nausea, vomiting and gastrointestinal irritation. Prolonged inhalation may cause respiratory irritation. Acute oral toxicity of concentrate per EPA method = >5000 mg./kg. Acute dermal irritation = Non-irritating. Toxicity Category IV per EPA Method. Tests show the product is not a skin sensitizer. Acute inhalation toxicity = LC50>2.13 mg./Liter.

2. None known to Hillyard Industries when used according to label directions.

## SECTION VI – HEALTH HAZARD DATA continued

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

**Signs and Symptoms of Exposure:** Eye symptoms may occur with delay such as conjunctiva and burns; reaction may be delayed. Prolonged skin contact with concentrate may cause irritation. Inhalation of fine mist or aerosols can lead to irritation and inflammation of the respiratory tract and cause pulmonary edema. Symptoms may occur with delay. Swallowing can lead to irritation of the mucous membranes in the mouth, esophagus and stomach.

**Medical Conditions Generally Aggravated by Exposure:** Open cuts and sores may be irritated by contact.

**Emergency and First Aid Procedures:** Eye and Skin Contact – Flush eyes and skin with plenty of water for 15 minutes; apply water gently and do not rub area. For eyes seek medical attention immediately. For skin, if irritation persists, get medical attention. If swallowed, do not induce vomiting. Seek immediate medical attention. If excess inhaled, remove to fresh air; if breathing is difficult, seek medical attention.

## SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps To Be Taken In Case Material Is Released Or Spilled:** Small spills should be flushed with water and picked up with mop. Hydrogen peroxide quickly decomposes to oxygen and water.

**Waste Disposal Method:** Dispose of in accordance with state or local regulations.

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use. Since empty packages retain product residue, follow label warnings even after package is empty.

**Other Precautions:** Do not dispose of in storm drains or streams. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and 40 CFR Part 372.

## SECTION VIII – CONTROL MEASURES

**Respiratory Protection (Specify Type):** Not normally required with adequate ventilation.

**Ventilation:**

**Local Exhaust =** Normally adequate **Mechanical (General) =** Recommended **Special =** N/A **Other =** N/A

**Protective Gloves:** Impervious gloves (neoprene or rubber) with concentrate. **Eye Protection:** Splash goggles with concentrate.

**Other Protective Clothing or Equipment:** Avoid prolonged contact. Wear clothing to prevent contact with concentrate if necessary. Eye wash, safety shower to be available when working with concentrate.

**Work / Hygienic Practices:** Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling; wash clothing before reuse. Completely submerge contaminated clothing or other materials in water prior to drying.

## SECTION IX – TRANSPORTATION INFORMATION

**Applicable regulations:** 49 CFR = no; IMCO = no; IATA = no

**Proper shipping name:** Cleaning compound

**UN NO.:** not applicable **Limited Qty.:** not applicable **Hazard Class =** not applicable

**Labels required:** not required **DOT Exception:** not applicable

**EPA Hazardous waste number / code:** not listed

**Hazardous waste characteristics:** **Ignitability:** not applicable; **Corrosivity:** not applicable; **Reactivity:** not applicable

### DISCLAIMER OF WARRANTIES

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**MATERIAL SAFETY DATA SHEET**

**NFPA RATING:** Health = 2 Flammability = 1 Reactivity = 0

**HMIS RATING:** Health = 2 Flammability = 1 Reactivity = 1

**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION (515N-26A)**

**Manufacturer's Name:** HILLYARD INDUSTRIES

**Product Name:** SUPROX

**Address:** 302 North Fourth Street

**Date Prepared:** July 17, 2006

St. Joseph, MO 64501

**Prepared by:** Regulatory Affairs Department

**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

**Other information calls:** (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

**SECTION II – INGREDIENTS/IDENTITY INFORMATION****Components**

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Hydrogen Peroxide	7722-84-1	1.4 mg/m <sup>3</sup>	1.4 mg/m <sup>3</sup>	N.A.	5 - 8%
Water	7732-18-5	none	none	N.A.	---
Complex Surfactant Blend	68991-48-0 & 68439-46-3	not established	not established	N.A.	---

VOC (Concentrate) = 0.40%; VOC (min. dilution 1:10) = 0.04%

**SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**

<b>Boiling Point:</b>	217°F	<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	25°C = 1.02 & 39°C = 1.02
<b>Vapor Pressure (mm Hg.):</b>	17.6	<b>Percent Volatile by Volume (%):</b>	94.6%
<b>Vapor Density (AIR = 1):</b>	0.65	<b>Evaporation Rate (ethyl ether = 1):</b>	Slower than 1
<b>Solubility in Water:</b>	complete	<b>Appearance and Odor:</b>	Clear, colorless liquid, Citrus odor
<b>pH (concentrate) =</b>	4-5		

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA**

**Flash point:** >145°F corrected (T.C.C.) **Flammable Limits:** LEL = Not determined UEL = Not determined

**Extinguishing Media:** Do NOT use CO<sub>2</sub> extinguisher on this material: use only water spray or appropriate foam. Do not use organic compounds on this material.

**Special Fire Fighting Procedures:** As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Cool with water spray.

**Unusual Fire and Explosion Hazards:** Release of oxygen may support combustion. Contact with incompatible materials (e.g. metals, alkalis, and strong reducing agents) may cause hazardous decomposition resulting in the release of heat, steam, and oxygen. Exposure to heat may cause hazardous decomposition. Hydrogen peroxide may spontaneously decompose above 150°C. Do not mix with kerosene or gasoline.

**SECTION V – PHYSICAL HAZARDS**

**Stability:** Stable **Conditions to Avoid:** Heat and flame.

**Incompatibility (Materials to Avoid):** Metals, Reducing agents, Alkalis, Combustible materials, Organic materials, Salt of heavy metals, Impurities.

**Hazardous Decomposition Products or Byproducts:** Oxygen, oxides of carbon and steam.

**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** None known to Manufacturer

**SECTION VI – HEALTH HAZARD DATA**

**Routes of entry:** Inhalation? yes Skin? yes Ingestion? LD50 greater than 5 g/kg

**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Contact with concentrate may cause eye burns and prolonged skin contact with concentrate may cause slight skin irritation. Ingestion can cause nausea, vomiting and gastrointestinal irritation. Prolonged inhalation may cause respiratory irritation. Acute oral toxicity of concentrate per EPA method = >5000 mg./kg. Acute dermal irritation = Non-irritating. Toxicity Category IV per EPA Method. Tests show the product is not a skin sensitizer. Acute inhalation toxicity = LC50>2.13 mg./Liter.

2. None known to Hillyard Industries when used according to label directions.

## SECTION VI – HEALTH HAZARD DATA continued

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

**Signs and Symptoms of Exposure:** Eye symptoms may occur with delay such as conjunctiva and burns; reaction may be delayed. Prolonged skin contact with concentrate may cause irritation. Inhalation of fine mist or aerosols can lead to irritation and inflammation of the respiratory tract and cause pulmonary edema. Symptoms may occur with delay. Swallowing can lead to irritation of the mucous membranes in the mouth, esophagus and stomach.

**Medical Conditions Generally Aggravated by Exposure:** Open cuts and sores may be irritated by contact.

**Emergency and First Aid Procedures:** Eye and Skin Contact – Flush eyes and skin with plenty of water for 15 minutes; apply water gently and do not rub area. For eyes seek medical attention immediately. For skin, if irritation persists, get medical attention. If swallowed, do not induce vomiting. Seek immediate medical attention. If excess inhaled, remove to fresh air; if breathing is difficult, seek medical attention.

## SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps To Be Taken In Case Material Is Released Or Spilled:** Small spills should be flushed with water and picked up with mop. Hydrogen peroxide quickly decomposes to oxygen and water.

**Waste Disposal Method:** Dispose of in accordance with state or local regulations.

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use. Since empty packages retain product residue, follow label warnings even after package is empty.

**Other Precautions:** Do not dispose of in storm drains or streams. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and 40 CFR Part 372.

## SECTION VIII – CONTROL MEASURES

**Respiratory Protection (Specify Type):** Not normally required with adequate ventilation.

**Ventilation:**

**Local Exhaust =** Normally adequate **Mechanical (General) =** Recommended **Special =** N/A **Other =** N/A

**Protective Gloves:** Impervious gloves (neoprene or rubber) with concentrate. **Eye Protection:** Splash goggles with concentrate.

**Other Protective Clothing or Equipment:** Avoid prolonged contact. Wear clothing to prevent contact with concentrate if necessary. Eye wash, safety shower to be available when working with concentrate.

**Work / Hygienic Practices:** Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling; wash clothing before reuse. Completely submerge contaminated clothing or other materials in water prior to drying.

## SECTION IX – TRANSPORTATION INFORMATION

**Applicable regulations:** 49 CFR = no; IMCO = no; IATA = no

**Proper shipping name:** Cleaning compound

**UN NO.:** not applicable **Limited Qty.:** not applicable **Hazard Class =** not applicable

**Labels required:** not required **DOT Exception:** not applicable

**EPA Hazardous waste number / code:** not listed

**Hazardous waste characteristics:** **Ignitability:** not applicable; **Corrosivity:** not applicable; **Reactivity:** not applicable

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## *Environmental Certification*

*Presented to*

### **HILLYARD INDUSTRIES, INC.**

Green Seal, Inc. certifies that the following product complies with or exceeds Green Seal's Environmental Standard for General-Purpose, Bathroom, and Glass Cleaners Used for Industrial and Institutional Purposes (GS-37) and is licensed to use the Green Seal Certification Mark:

#833 Arsenal Suprox Concentrate

*(Specific pack sizes listed in certification letter)*

Certified this 15th day of April, 2005.

---

Mark T. Petruzzi, Vice President of Certification

# GREEN SELECT™ BATHROOM CLEANER



## *Environmentally Preferred Bathroom Cleaner*

Green Select Bathroom Cleaner is formulated to be non-toxic, phosphate free, biodegradable, nonflammable, without dye, and to have no hazardous ingredients\*. Hillyard Green Select products are formulated to minimize the impact on the environment, reduce the risk to human health, and at the same time improve worker safety.

\*per 29 CFR 1910 1200

## *Natural Organic Acid*

Green Select Bathroom Cleaner has an effective cleaning Glycolic acid formula. Glycolic acid is the same organic acid found in sugar cane, beets, and fruits. This formula removes soap film and hard water deposits easily. It is good for cleaning ceramic tile, porcelain, sinks, toilet bowls, fiberglass, plastic, chrome, and shower and bathroom surfaces. No phosphates and no hazardous acids means lower environmental impact and safer to use.

## *Multi Purpose Bathroom Cleaner*

Green Select Bathroom Cleaner can be used effectively to clean toilet bowls by applying a small amount to a bowl swab. Spray and wipe on sinks to remove hard water deposits. Low residue makes it easier to wipe off and easy to rinse.

## *Professional Cleaning...By The Numbers*

The Arsenal line of products delivers Hillyard cleaning quality in an Easy to dispense, easy to use family of products. Arsenal products are Formulated for professional cleaning and are color coded with large matching numbers on both the concentrated and ready to use container labels for easy mixing and use. Ask your Hillyard consultant about the complete line of Arsenal professional cleaning products. They are just another example of high quality from Hillyard.



## *Arsenal® Dispensing And Packaging Options:*

### *Arsenal Push Button Dispenser*

1 Gallon - 4 per case

Each gallon yields 22 gallons of RTU (ready-to-use) product

1/2 Gallon - 6 per case

Each 1/2 gallon yields 11 gallons of RTU (ready-to-use) product

### *Dilution Rate:*

1:20 (6 ounces per gallon)



This product meets Green Seal's environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.

**HILLYARD**

Cleaning Solutions Since 1907





# GREEN SELECT™ BATHROOM CLEANER

#829

## TECHNICAL DATA

### PHYSICAL PROPERTIES

1. Color .....	Colorless	13. Ammonia .....	None
2. Clarity .....	Clear	14. Flash point (TCC) .....	None to 200°F
3. Odor .....	Floral	15. Cleaning effectiveness .....	Excellent
4. Foreign matter .....	None	16. Resistance to soil redeposition .....	Excellent
5. Nonvolatile matter, 3 hrs. @ 105°C .....	13.5 - 14.5%	17. Volatile organic compounds .....	0% (concentrate)
6. pH, 25°C .....	4.0 +/- 0.5		
7. Specific gravity, 25°C/25°C .....	1.057	<b>TEST METHODS</b>	
8. Weight per gallon, 25°C .....	8.80 lbs. (4.0 kg)	5. ASTM D460	
9. Water solubility .....	Complete	7. ASTM D891	
10. Freeze-thaw (3 cycles) .....	Stable	8. ASTM D1475	
11. Freezing point .....	30°F	14. ASTM D56	
12. Alkaline salts .....	None	19. ASTM D3960	

0704(#829)



## LABEL INFORMATION #829

# GREEN SELECT™ BATHROOM CLEANER

## CONCENTRATED BATHROOM CLEANER

**Contains No Hazardous Ingredients\* - Non-Toxic, Phosphate Free, Biodegradable, Non-Flammable, No Dye**

\*per 29 CFR 1910.1200

Cleans basins, bowls, porcelain, ceramic tile, stainless steel, fiberglass, plastic, chrome, showers, and washroom surfaces. Removes soap film and hard water deposit buildup.

### DIRECTIONS FOR USE:

- **ARSENAL PUSH BUTTON DISPENSING SYSTEM:** For use with Hillyard arsenal Push Button Dispensers. Remove shipping cap and attach adapter cap to the one gallon of concentrate. Place into either wire rack or cabinet. Dispense diluted product into a quart spray bottle.
- **ARSENAL JR. DISPENSING SYSTEM:** Remove shipping cap and insert one-half gallon container into bottom of unit until it locks into place.

**SPECIAL INSTRUCTIONS:** For use only with Hillyard Arsenal Dilution System. Can be applied with soft bristle brush or mild abrasive pad. For hard water deposits or heavy soil allow more dwell time to penetrate and loosen soil; rinse thoroughly. To conserve energy always use cold tap water.

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer clean, dry container for recycling or reconditioning.

### DISCLAIMER OF WARRANTY

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

**VOC of Concentrate = 0%**

**HMIS Rating:** Health = 1, Flammability = 0, Reactivity = 0

## CAUTION

### PROLONGED CONTACT MAY CAUSE EYE OR SKIN IRRITATION

**CONTAINS:** WATER (CAS #7732-18-5); ALKYL POLYGLUCOSIDE MIXTURE (NONIONIC SURFACTANT) (CAS #68515-73-1 & 110615-47-9). Do not take internally. Avoid prolonged contact with eyes and skin. Prolonged breathing of fine mist may cause respiratory irritation.

**FIRST AID: Eye and skin contact:** Flush with water for 15 minutes; remove contact lenses and flush eyes again with water. If eye irritation persists get medical attention. **If swallowed:** Call a physician, hospital emergency room, or poison control center immediately; induce vomiting. If excess mist inhaled move to fresh air.

**See Material Safety Data Sheet for additional information.**

**KEEP OUT OF REACH OF CHILDREN**

**MATERIAL SAFETY DATA SHEET**

**NFPA RATING:** Health = 1 Flammability = 0 Reactivity = 0

**HMIS RATING:** Health = /1 Flammability = 0 Reactivity = 0

**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION (1029C)**

**Manufacturer's Name:** HILLYARD INDUSTRIES **Product Name:** ARSENAL GREEN SELECT BATHROOM CLEANER

**Address:** 302 North Fourth Street  
St. Joseph, MO 64501

**Date Prepared:** December 7, 2006  
**Prepared by:** Regulatory Affairs Department

**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.) **Other information calls:** (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

**SECTION II – INGREDIENTS/IDENTITY INFORMATION****Components**

(Specific Chemical Identity: Common Name(s))	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Water	7732-18-5	none	none	N/A	---
Alkyl polyglucoside mixture	68515-73-1 & 110615-47-9	not established	not established	N/A	---
Sodium Citrate	68-04-2	not established	not established	N/A	---
Glycolic Acid	79-14-1	not established	not established	N/A	---
Natural lavender fragrance	trade secret	not established	not established	N/A	---

VOC Concentrate = 0 g/l.; VOC (concentrate) 0%; VOC (Min. dilution) 0%

**SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**

**Boiling Point:** 208°F **Specific Gravity (H<sub>2</sub>O = 1):** 25°C = 1.06 & 39°C = 1.06  
**Vapor Pressure (mm Hg.):** 17.5 **Percent Volatile by Volume (%):** 86.28  
**Vapor Density (AIR = 1):** 0.6 **Evaporation Rate (ethyl ether = 1):** slower than 1  
**Solubility in Water:** complete **Appearance and Odor:** green liquid; floral odor  
**pH (concentrate) =** 4.33

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA**

**Flash point:** None to 200°F (T.C.C.) **Flammable Limits:** LEL = No data UEL = N/A

**Extinguishing Media:** Carbon dioxide, Dry chemical, Foam, Water Spray.

**Special Fire Fighting Procedures:** Water spray may be used to cool closed containers. Use self-contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** None known to manufacturer.

**SECTION V – PHYSICAL HAZARDS**

**Stability:** Stable **Conditions to Avoid:** None known to Hillyard

**Incompatibility (Materials to Avoid):** Strong oxidizing materials

**Hazardous Decomposition Products or Byproducts:** As with any organic material, combustion will produce carbon dioxide and probably carbon monoxide.

**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** None known

**SECTION VI – HEALTH HAZARD DATA**

**Routes of entry:** Inhalation? no Eye? yes Skin? no Ingestion? no

**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. When tested per the Federal Hazardous Substance Act method 16 CFR 1500 concentrated product was not a skin irritant; per the FHSA method 16 CFR 1500 the product was an eye irritant. Not acutely toxic (oral) to rats at 5 gm/kg. per upper limit test. Acute inhalation = 1 hour upper limit test not toxic at 21.6 mg/L.

2. None known to Hillyard.

**SECTION VI – HEALTH HAZARD DATA continued**

**Chemical listed as Carcinogen or Potential Carcinogen:**

**National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No**

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

**Signs and Symptoms of Exposure:** None known by manufacturer.

**Medical Conditions Generally Aggravated by Exposure:** None known by manufacturer.

**Emergency and First Aid Procedures:** Eye and skin contact: Flush with plenty of water for 15 minutes; remove contact lenses and flush eyes again with water. If eye irritation persists get medical attention. If swallowed: Call a physician, hospital emergency room or poison control center immediately; induce vomiting.

**SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE**

**Steps To Be Taken In Case Material Is Released Or Spilled:** Absorb large spills with floor dry material. Small spills: Flush with water and pick up with mop.

**Waste Disposal Method:** Dispose of in accordance with state and local regulations

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use.

**Other Precautions:** Do not take internally

**SECTION VIII – CONTROL MEASURES**

**Respiratory Protection (Specify Type):** None required.

**Ventilation:** Follow good engineering practices for public areas.

**Local Exhaust = N/A Mechanical (General) = Recommended Special = N/A Other = N/A**

**Protective Gloves: N/A Eye Protection:** Goggles when splashing of concentrate is a concern.

**Other Protective Clothing or Equipment:** N/A

**Work / Hygienic Practices:** Wash thoroughly after handling

**SECTION IX – TRANSPORTATION INFORMATION**

**Applicable regulations:** CFR = No IMCO = No IATA = No.

**Proper shipping name for air, foreign water for highway:** Cleaning compound

**UN No.:** not applicable for highway **Limited Qty.:** not applicable **Hazard class:** not applicable for highway

**Labels required:** not required for highway **DOT Exception:** not applicable

**EPA Hazardous waste characteristics:**

**Ignitability =** Not applicable; **Corrosivity =** Not applicable; **Reactivity =** Not applicable.

**DISCLAIMER OF WARRANTIES**

**NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.**

**The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate.**

**THE BUYER OR USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE, MISUSE OR DISPOSAL OF THIS PRODUCT. THE BUYER OR USER IS RESPONSIBLE TO COMPLY WITH ALL FEDERAL, STATE OR LOCAL REGULATIONS CONCERNING THE USE, MISUSE OR DISPOSAL OF THESE PRODUCTS.**



## *Environmental Certification*

*Presented to*

### **HILLYARD INDUSTRIES, INC.**

Green Seal, Inc. certifies that the following products comply with or exceed Green Seal's Environmental Standard for General-Purpose, Bathroom, and Glass Cleaners Used for Industrial and Institutional Purposes (GS-37) and are licensed to use the Green Seal Certification Mark:

#827 Arsenal Green Select Glass Cleaner / #960 Green Select Glass Cleaner

#828 Arsenal Green Select Degreaser / #961 Green Select Degreaser

#829 Arsenal Green Select Bathroom Cleaner / #962 Green Select Bathroom Cleaner

Certified this 8th day of December, 2003.

Mark T. Petruzzi, Vice President of Certification

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Carpet Cleaners

## CARPET PRE-SPRAY & EXTRACTION

14

### *High Performance Cleaning*

Arsenal® Carpet Pre-Spray & Extraction is phosphate free and formulated with heavy duty surfactants and solvents. It penetrates and loosens oil and water-based soils quickly. Safe to use on Advanced 5<sup>th</sup> Generation Stain Resistant carpets.

### *Free Rinsing*

Arsenal Carpet Pre-Spray & Extraction is free rinsing. After extraction, carpeting is left soft and residue free.

### *Carpet and Rug Institute (CRI) Approved*

Arsenal Carpet Pre-Spray & Extraction meets the highest standard for carpet cleaning. CRI approval means high cleaning performance, low residue, and most carpet mills recommend CRI approved cleaning chemicals for their carpets. The recommended coverage is 500-600 square feet per diluted gallon.

### *Professional Cleaning...By The Numbers*

The Arsenal line of products delivers Hillyard cleaning quality in an easy-to-dispense, easy-to-use family of products. Arsenal products are formulated for professional cleaning and are color coded with large matching numbers on both the concentrated and ready-to-use container labels for easy mixing and use. Ask your Hillyard consultant about the complete line of Arsenal professional cleaning products. They are just another example of the high quality from Hillyard.

### *Arsenal® Dispensing And Packaging Options:*

#### *Arsenal Push Button Dispenser*

1 Gallon - 4 per case

Each gallon yields 84 quarts of RTU (Ready-To-Use) product

1/2 Gallon - 6 per case

Each 1/2 gallon yields 10.5 quarts of RTU (Ready-To-Use) product

#### *Arsenal Dispensing Jug*

1 Quart - 12 per case

Each quart yields 21 quarts of RTU product

#### *Dilution Rate:*

1:20 (6 ounces per gallon)



This product meets the Green Seal™ environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.



# CARPET PRE-SPRAY #814 & EXTRACTION

## TECHNICAL DATA

### PHYSICAL PROPERTIES

1. Color .....	Colorless	10. Free ammonia .....	None
2. Odor .....	Non-objectionable	11. Heat stability (30 days, 52°C) .....	No Separation
3. Clarity .....	Clear	12. Flash point (TCC) .....	None to 200°F
4. Sediment .....	None	13. Butyl content .....	None
5. Viscosity, Brookfield, 25°C .....	5 cps		
6. Weight per gallon .....	8.88 lbs (4.0 kg)		
7. Nonvolatile matter .....	13± 0.5	TEST METHODS	7. ASTM D2834
8. pH .....	9.0 - 9.8	5. ASTM D1824	8. ASTM E70
9. Phosphate content .....	None	6. ASTM D1475	12. ASTM D56

698(#814)



This product meets the Green Seal™ environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.



## LABEL INFORMATION #814

# CARPET PRE-SPRAY & EXTRACTION FOR CARPETS AND AREA RUGS

### DIRECTIONS FOR USE:

**ARSENAL II PUSH BUTTON DISPENSING SYSTEM:** Remove shipping cap and attach adapter cap to the one gallon of concentrate. Place into either wire rack or cabinet. Dispense diluted product into a pump-up pressure sprayer.

**ARSENAL JUNIOR AND MOBILE DISPENSING:** Remove shipping cap from ½ gallon of concentrate and insert container into bottom of dispenser until it locks into place. Dispense diluted product into a pump-up, pressure sprayer.

**ARSENAL DISPENSING JUG SYSTEM:** Empty contents of quart concentrate into 5 gallons of water in dispensing jug. Dispense diluted product into a pump-up, pressure sprayer.

**NOTICE:** Over-wetting of carpet may cause shrinkage and browning.

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer clean, dry container for recycling or reconditioning.

### DISCLAIMER OF WARRANTY

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

**V.O.S. = 0%**

**HMIS Rating: Health = / 1, Flammability = 0, Reactivity = 0**

## CAUTION

### PROLONGED CONTACT MAY CAUSE EYE IRRITATION

**CONTAINS:** WATER (CAS # 7732-18-5); SODIUM XYLENE SULFONATE (1300-72-7); COMPLEX SURFACTANT MIXTURE (CAS # UNKNOWN TO HILLYARD); SODIUM GLUCONATE (CAS #527-07-1); SODIUM CARBONATE (CAS # 497-19-8). Do not get concentrate into eye. Safety goggles are suggested where splash of concentrate is a concern. Wash thoroughly after handling.

**FIRST AID:** In case of contact, immediately flush eyes with plenty of water for 15 minutes, get medical attention. If inhaled, remove to fresh air. If breathing is difficult, get medical attention.

**See Material Safety Data Sheet for additional information.**

**KEEP OUT OF REACH OF CHILDREN**

0606

**MATERIAL SAFETY DATA SHEET**

**NFPA RATING:** Health = 1 Flammability = 0 Reactivity = 0

**HMIS RATING:** Health = 1/1 Flammability = 0 Reactivity = 0

**SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION (527N-82A)**

**Manufacturer's Name:** HILLYARD INDUSTRIES

**Product Name:** CARPET PRE-SPRAY

**Address:** 302 North Fourth Street

**Date Prepared:** August 16, 2006

St. Joseph, MO 64501

**Prepared by:** Regulatory Affairs Department

**Emergency Telephone No.:** (800)-424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

**Other information calls:** (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

**SECTION II -- INGREDIENTS/IDENTITY INFORMATION****Components**

(Specific Chemical Identity: Common Name(s))	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Water	7732-18-5	none	none	N/A	---
Sodium Xylene Sulfonate	1300-72-7	not established	not established	N/A	---
Complex Surfactant Blend	Unknown to Hillyard	not established	not established	N/A	---
Sodium Gluconate	527-07-1	not established	not established	N/A	---
Sodium Carbonate	497-19-8	not established	not established	N/A	---
VOS = 0%					

**SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS**

**Boiling Point:** 204°F

**Specific Gravity (H<sub>2</sub>O = 1):** 25°C = 1.06 & 39°C = 1.06

**Vapor Pressure (mm Hg.):** 17.5

**Percent Volatile by Volume (%):** 86.8

**Vapor Density (AIR = 1):** 0.6

**Evaporation Rate (ethyl ether = 1):** slower than 1

**Solubility in Water:** complete

**Appearance and Odor:** clear, colorless liquid; nonobjectionable odor

**pH (concentrate) =** 9-9.8

**SECTION IV -- FIRE AND EXPLOSION HAZARD DATA**

**Flash point:** none (T.C.C.)

**Flammable Limits:** LEL = N/A UEL = N/A

**Extinguishing Media:** Water fog, carbon dioxide, foam, dry chemical.

**Special Fire Fighting Procedures:** Self-contained positive pressure breathing apparatus and protective clothing should be worn in fighting fires involving chemicals.

**Unusual Fire and Explosion Hazards:** N/A

**SECTION V -- PHYSICAL HAZARDS**

**Stability:** Stable

**Conditions to Avoid:** N/A

**Incompatibility (Materials to Avoid):** Avoid strong oxidizing agents or strong mineral acids.

**Hazardous Decomposition Products or Byproducts:** Decomposition products under fire conditions: fumes of ammonia, carbon monoxide, carbon dioxide, oxides of nitrogen and various hydrocarbons.

**Hazardous Polymerization:** Will not occur

**Conditions to Avoid:** N/A

**SECTION VI -- HEALTH HAZARD DATA**

**Routes of entry:** Inhalation? No Skin? No Ingestion? No

**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Not a primary skin irritant per Federal Hazardous Substance Act. Prolonged contact with skin may cause slight irritation. Prolonged contact with eye may produce irritation. Concentrate not acute oral toxicity at 5 g/kg. 2. None known to Hillyard.



**Chemical listed as Carcinogen or Potential Carcinogen:**

National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

**Signs and Symptoms of Exposure:** Concentrate may be irritating to eyes if not removed promptly. Breathing of highly concentrated vapors or spray mists may cause irritation to the respiratory tract.

**Medical Conditions Generally Aggravated by Exposure:** N/A

**Emergency and First Aid Procedures:** In case of contact, immediately flush eyes with plenty of water for 15 minutes; get medical attention. If inhaled, remove to fresh air. If breathing is difficult, get medical attention.

**SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE**

**Steps To Be Taken In Case Material Is Released Or Spilled:** Pick up with mop or wet vac and wash away with water. Spills of concentrate should be picked up with wet vac and rinsed thoroughly.

**Waste Disposal Method:** Wash down sewer with large quantity of water. Container disposal: Triple rinse (or equivalent), then offer clean, dry container for recycling or reconditioning.

**Precautions To Be Taken In Handling And Storing:** Freezing of product may rupture container. Product shelf life is best retained by storage at 45-100°F temperature.

**Other Precautions:** This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Sec. 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR Part 372.

**SECTION VIII -- CONTROL MEASURES:**

**Respiratory Protection (Specify Type):** Not required

**Ventilation:**

**Local Exhaust =** Not required    **Mechanical (General) =** N/A    **Special =** N/A    **Other =** N/A

**Protective Gloves:** None required    **Eye Protection:** Safety goggles suggested where splash of concentrate is a concern.

**Other Protective Clothing or Equipment:** None required

**Work / Hygienic Practices:** Wash thoroughly after handling.

**SECTION IX - TRANSPORTATION INFORMATION:**

**Applicable regulations:** 49 CFR = no; IMCO = no; IATA = no

**Proper shipping name:** Cleaning compound

**UN No.:** not applicable    **Limited Qty.:** not applicable    **Hazard Class =** not applicable

**Labels required:** not required    **DOT Exception:** not applicable

**EPA Hazardous waste number / code:** not listed

**Hazardous waste characteristics:**

**Ignitability =** not applicable; **Corrosivity =** not applicable; **Reactivity =** not applicable

**DISCLAIMER OF WARRANTIES**

**NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.**

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**THE BUYER OR USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE, MISUSE OR DISPOSAL OF THIS PRODUCT. THE BUYER OR USER IS RESPONSIBLE TO COMPLY WITH ALL FEDERAL, STATE OR LOCAL REGULATIONS CONCERNING THE USE, MISUSE OR DISPOSAL OF THESE PRODUCTS.**



## *Environmental Certification*

*Presented to*

### **HILLYARD INDUSTRIES, INC.**

Green Seal, Inc. certifies that the following products comply with or exceed Green Seal's Environmental Standard for General-Purpose, Bathroom, Glass, and Carpet Cleaners Used for Industrial and Institutional Purposes (GS-37) and are licensed to use the Green Seal Certification Mark:

#965 Carpet Pre-Spray & Extraction  
#814 Arsenal Carpet Pre-Spray & Extraction

*(Specific pack sizes listed in certification letter)*

Certified this 25th day of May, 2006.

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Mark T. Petruzzi, Vice President of Certification

# HILLYARD ARSENAL®

## SUPROX®

### SUPER CONCENTRATED HYDROGEN PEROXIDE MULTI-PURPOSE CLEANER

#833



#### **Versatile Cleaning Power**

This versatile, highly concentrated multi-purpose cleaner contains stabilized Hydrogen peroxide and natural citrus solvents to provide highly effective cleaning for many surfaces including glass, restroom fixtures, tile and grout, counters, floors, and carpets. The Hydrogen peroxide formulation in Arsenal Suprox® also aids in brightening grout, enhancing the appearance of tiled surfaces.

#### **Environmentally Preferred**

When compared to traditional multi-purpose cleaners, Arsenal Suprox has been formulated for reduced toxicity to lessen the impact on environmental health, worker health, and building occupant health. Arsenal Suprox is a welcome addition to its Green Seal cleaning programs, and is part of the Hillyard Green Select® Program.

#### **Consolidates The Cleaning Process**

Consolidate multiple products within your cleaning process. Arsenal Suprox can save time, effort, and money by eliminating redundant products and simplifying the training process, resulting in an enhanced cleaning process.

#### **Professional Cleaning...By The Numbers**

The Arsenal line of products delivers Hillyard cleaning quality in an easy-to-dispense, easy-to-use family of products. Arsenal products are formulated for professional cleaning and are color-coded with large matching numbers on both the concentrated and ready-to-use container labels for easy mixing and use. Ask your Hillyard consultant about the complete line of Arsenal professional cleaning products. They are just another example of high quality from Hillyard.

#### **Arsenal® Dispensing And Packaging Options:**

##### **Arsenal Push Button Dispenser**

1 Gallon - 4 per case

Each gallon yields 26.6 gallons of RTU (ready-to-use) product

1/2 Gallon - 6 per case

Each 1/2 gallon yields 13.3 gallons of RTU (ready-to-use) product

##### **Dilution Rate:**

1:26 (5 ounces per gallon low flow)

1:128 (1 ounce per gallon high flow)

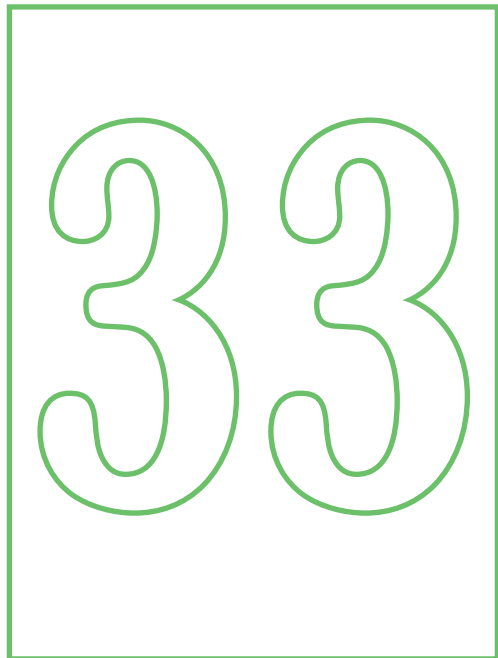


This product meets the Green Seal™ environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.

## HILLYARD

Cleaning Solutions Since 1907

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# SUPROX®

#833

## TECHNICAL DATA

### PHYSICAL PROPERTIES

- |  |   |
|--|---|
| 1. Color.....Slightly yellow to colorless                      | 11. Specific gravity at 25°C.....1.03       |
| 2. Fragrance.....Citrus  | 12. Weight / gallon.....8.55 lbs. (3.89 kg) |
| 3. Clarity.....Clear   |   |
| 4. Foreign matter.....None                                     | TEST METHODS                                |
| 5. Solubility in water.....Complete                            | 6. ASTM E70                                 |
| 6. pH.....3.5 – 4.5  | 7. ASTM D2834                               |
| 7. Nonvolatile matter.....5.0 +/- 0.5%                         | 10. ASTM D56                                |
| 8. Freeze/thaw stability (3 cycles).....Stable after agitation | 11. ASTM D891                               |
| 9. Heat stability at 125°F (52°C).....Stable                   | 12. ASTM D1475                              |
| 10. Flash point (T.C.C.).....155°F typical                     |   |

0105(#833)



## LABEL INFORMATION #833

# SUPROX®

**PEROXIDE CLEANER**

This versatile, highly concentrated multi-purpose cleaner contains stabilized Hydrogen peroxide and natural citrus solvents. In high flow dilution (1 oz.) good for floor and autoscrubber cleaning. In low flow (5 oz.) dilution, will clean glass, restroom fixtures, tile and grout, counters and carpets. Aids in brightening grout. Formulated for reduced toxicity to lessen the impact on environmental health, worker health, and building occupant health.

### DIRECTIONS FOR USE:

ARSENAL PUSH BUTTON DISPENSING SYSTEM: Remove shipping cap and attach adapter cap to the gallon of concentrate. Place into either wire rack or cabinet. Fill quart bottle and follow bottle directions.

ARSENAL JR. DISPENSING SYSTEM: Remove shipping cap and insert container into bottom of dispenser until it locks into place. Fill quart bottle and follow bottle directions.

**SPECIAL INSTRUCTIONS:** For use only with Hillyard Arsenal Dilution System. For best results use micro fiber cloth. To conserve energy always use cold tap water.

**NOTICE:** Do not use with ammonia or bleaches. Before carpet spotting, test product in an inconspicuous area to ensure compatibility.

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent), then offer clean, dry container for recycling or reconditioning.

	This product meets the Green Seal™ environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.
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### DISCLAIMER OF WARRANTY

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

VOC (Concentrate) = 0.40%

HMIS Rating: Health = 1, 2, Flammability = 1, Reactivity = 1

## DANGER

### HARMFUL IF SWALLOWED – CAUSES EYE BURNS

### MAY CAUSE SKIN IRRITATION – MAY CAUSE RESPIRATORY IRRITATION

**CONTAINS:** HYDROGEN PEROXIDE (CAS #7722-84-1); WATER (CAS #7732-18-5). Do not get in eyes, on skin, and clothing. Do not ingest.

**FIRST AID:** Eye and Skin Contact: Flush eyes and skin with plenty of water for 15 minutes; apply water gently and do not rub area. If irritation persists, get medical attention. Seek immediate medical attention. If swallowed, do not induce vomiting. Seek immediate medical attention. If excess inhaled, remove to fresh air; if breathing is difficult seek medical attention.

**See Material Safety Data Sheet for additional information.**

## KEEP OUT OF REACH OF CHILDREN

**MATERIAL SAFETY DATA SHEET**

**NFPA RATING:** Health = 2 Flammability = 1 Reactivity = 0

**HMIS RATING:** Health = 2 Flammability = 1 Reactivity = 1

**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION (1054B)**

**Manufacturer's Name:** HILLYARD INDUSTRIES

**Product Name:** ARSENAL SUPROX

**Address:** 302 North Fourth Street

**Date Prepared:** September 26, 2006

St. Joseph, MO 64501

**Prepared by:** Regulatory Affairs Department

**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

**Other information calls:** (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

**SECTION II – INGREDIENTS/IDENTITY INFORMATION****Components**

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Hydrogen Peroxide	7722-84-1	1.4 mg/m <sup>3</sup>	1.4 mg/m <sup>3</sup>	N.A.	5 - 8%
Water	7732-18-5	none	none	N.A.	---
Complex Surfactant Blend	68991-48-0 & 68439-46-3	not established	not established	N.A.	---

VOC (Concentrate) = 0.40%; VOC (min. dilution 1:10) = 0.04%

**SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**

<b>Boiling Point:</b>	217°F	<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	25°C = 1.02 & 39°C = 1.02
<b>Vapor Pressure (mm Hg.):</b>	17.6	<b>Percent Volatile by Volume (%):</b>	94.6%
<b>Vapor Density (AIR = 1):</b>	0.65	<b>Evaporation Rate (ethyl ether = 1):</b>	Slower than 1
<b>Solubility in Water:</b>	complete	<b>Appearance and Odor:</b>	Clear, colorless liquid, Citrus odor
<b>pH (concentrate) =</b>	4-5		

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA**

**Flash point:** >145°F corrected (T.C.C.) **Flammable Limits:** LEL = Not determined UEL = Not determined

**Extinguishing Media:** Do NOT use CO<sub>2</sub> extinguisher on this material: use only water spray or appropriate foam. Do not use organic compounds on this material.

**Special Fire Fighting Procedures:** As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Cool with water spray.

**Unusual Fire and Explosion Hazards:** Release of oxygen may support combustion. Contact with incompatible materials (e.g. metals, alkalis, and strong reducing agents) may cause hazardous decomposition resulting in the release of heat, steam, and oxygen. Exposure to heat may cause hazardous decomposition. Hydrogen peroxide may spontaneously decompose above 150°C. Do not mix with kerosene or gasoline.

**SECTION V – PHYSICAL HAZARDS**

**Stability:** Stable **Conditions to Avoid:** Heat and flame.

**Incompatibility (Materials to Avoid):** Metals, Reducing agents, Alkalis, Combustible materials, Organic materials, Salt of heavy metals, Impurities.

**Hazardous Decomposition Products or Byproducts:** Oxygen, oxides of carbon and steam.

**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** None known to Manufacturer

**SECTION VI – HEALTH HAZARD DATA**

**Routes of entry:** Inhalation? yes Skin? yes Ingestion? LD50 greater than 5 g/kg

**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Contact with concentrate may cause eye burns and prolonged skin contact with concentrate may cause slight skin irritation. Ingestion can cause nausea, vomiting and gastrointestinal irritation. Prolonged inhalation may cause respiratory irritation. Acute oral toxicity of concentrate per EPA method = >5000 mg./kg. Acute dermal irritation = Non-irritating. Toxicity Category IV per EPA Method. Tests show the product is not a skin sensitizer. Acute inhalation toxicity = LC50>2.13 mg./Liter.

2. None known to Hillyard Industries when used according to label directions.

## SECTION VI – HEALTH HAZARD DATA continued

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

**Signs and Symptoms of Exposure:** Eye symptoms may occur with delay such as conjunctiva and burns; reaction may be delayed. Prolonged skin contact with concentrate may cause irritation. Inhalation of fine mist or aerosols can lead to irritation and inflammation of the respiratory tract and cause pulmonary edema. Symptoms may occur with delay. Swallowing can lead to irritation of the mucous membranes in the mouth, esophagus and stomach.

**Medical Conditions Generally Aggravated by Exposure:** Open cuts and sores may be irritated by contact.

**Emergency and First Aid Procedures:** Eye and Skin Contact – Flush eyes and skin with plenty of water for 15 minutes; apply water gently and do not rub area. For eyes seek medical attention immediately. For skin, if irritation persists, get medical attention. If swallowed, do not induce vomiting. Seek immediate medical attention. If excess inhaled, remove to fresh air; if breathing is difficult, seek medical attention.

## SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps To Be Taken In Case Material Is Released Or Spilled:** Small spills should be flushed with water and picked up with mop. Hydrogen peroxide quickly decomposes to oxygen and water.

**Waste Disposal Method:** Dispose of in accordance with state or local regulations.

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use. Since empty packages retain product residue, follow label warnings even after package is empty.

**Other Precautions:** Do not dispose of in storm drains or streams. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and 40 CFR Part 372.

## SECTION VIII – CONTROL MEASURES

**Respiratory Protection (Specify Type):** Not normally required with adequate ventilation.

**Ventilation:**

**Local Exhaust =** Normally adequate **Mechanical (General) =** Recommended **Special =** N/A **Other =** N/A

**Protective Gloves:** Impervious gloves (neoprene or rubber) with concentrate. **Eye Protection:** Splash goggles with concentrate.

**Other Protective Clothing or Equipment:** Avoid prolonged contact. Wear clothing to prevent contact with concentrate if necessary. Eye wash, safety shower to be available when working with concentrate.

**Work / Hygienic Practices:** Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling; wash clothing before reuse. Completely submerge contaminated clothing or other materials in water prior to drying.

## SECTION IX – TRANSPORTATION INFORMATION

**Applicable regulations:** 49 CFR = no; IMCO = no; IATA = no

**Proper shipping name:** Cleaning compound

**UN NO.:** not applicable **Limited Qty.:** not applicable **Hazard Class =** not applicable

**Labels required:** not required **DOT Exception:** not applicable

**EPA Hazardous waste number / code:** not listed

**Hazardous waste characteristics:** **Ignitability:** not applicable; **Corrosivity:** not applicable; **Reactivity:** not applicable

### DISCLAIMER OF WARRANTIES

**NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.**

**The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate.**

**THE BUYER OR USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE, MISUSE OR DISPOSAL OF THIS PRODUCT. THE BUYER OR USER IS RESPONSIBLE TO COMPLY WITH ALL FEDERAL, STATE OR LOCAL REGULATIONS CONCERNING THE USE, MISUSE OR DISPOSAL OF THESE PRODUCTS.**

**MATERIAL SAFETY DATA SHEET**

**NFPA RATING:** Health = 2 Flammability = 1 Reactivity = 0

**HMIS RATING:** Health = 2 Flammability = 1 Reactivity = 1

**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION (515N-26A)**

**Manufacturer's Name:** HILLYARD INDUSTRIES

**Product Name:** SUPROX

**Address:** 302 North Fourth Street

**Date Prepared:** July 17, 2006

St. Joseph, MO 64501

**Prepared by:** Regulatory Affairs Department

**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

**Other information calls:** (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

**SECTION II – INGREDIENTS/IDENTITY INFORMATION****Components**

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Hydrogen Peroxide	7722-84-1	1.4 mg/m <sup>3</sup>	1.4 mg/m <sup>3</sup>	N.A.	5 - 8%
Water	7732-18-5	none	none	N.A.	---
Complex Surfactant Blend	68991-48-0 & 68439-46-3	not established	not established	N.A.	---

VOC (Concentrate) = 0.40%; VOC (min. dilution 1:10) = 0.04%

**SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**

<b>Boiling Point:</b>	217°F	<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	25°C = 1.02 & 39°C = 1.02
<b>Vapor Pressure (mm Hg.):</b>	17.6	<b>Percent Volatile by Volume (%):</b>	94.6%
<b>Vapor Density (AIR = 1):</b>	0.65	<b>Evaporation Rate (ethyl ether = 1):</b>	Slower than 1
<b>Solubility in Water:</b>	complete	<b>Appearance and Odor:</b>	Clear, colorless liquid, Citrus odor
<b>pH (concentrate) =</b>	4-5		

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA**

**Flash point:** >145°F corrected (T.C.C.) **Flammable Limits:** LEL = Not determined UEL = Not determined

**Extinguishing Media:** Do NOT use CO<sub>2</sub> extinguisher on this material: use only water spray or appropriate foam. Do not use organic compounds on this material.

**Special Fire Fighting Procedures:** As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Cool with water spray.

**Unusual Fire and Explosion Hazards:** Release of oxygen may support combustion. Contact with incompatible materials (e.g. metals, alkalis, and strong reducing agents) may cause hazardous decomposition resulting in the release of heat, steam, and oxygen. Exposure to heat may cause hazardous decomposition. Hydrogen peroxide may spontaneously decompose above 150°C. Do not mix with kerosene or gasoline.

**SECTION V – PHYSICAL HAZARDS**

**Stability:** Stable **Conditions to Avoid:** Heat and flame.

**Incompatibility (Materials to Avoid):** Metals, Reducing agents, Alkalis, Combustible materials, Organic materials, Salt of heavy metals, Impurities.

**Hazardous Decomposition Products or Byproducts:** Oxygen, oxides of carbon and steam.

**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** None known to Manufacturer

**SECTION VI – HEALTH HAZARD DATA**

**Routes of entry:** Inhalation? yes Skin? yes Ingestion? LD50 greater than 5 g/kg

**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Contact with concentrate may cause eye burns and prolonged skin contact with concentrate may cause slight skin irritation. Ingestion can cause nausea, vomiting and gastrointestinal irritation. Prolonged inhalation may cause respiratory irritation. Acute oral toxicity of concentrate per EPA method = >5000 mg./kg. Acute dermal irritation = Non-irritating. Toxicity Category IV per EPA Method. Tests show the product is not a skin sensitizer. Acute inhalation toxicity = LC50>2.13 mg./Liter.

2. None known to Hillyard Industries when used according to label directions.

## SECTION VI – HEALTH HAZARD DATA continued

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

**Signs and Symptoms of Exposure:** Eye symptoms may occur with delay such as conjunctiva and burns; reaction may be delayed. Prolonged skin contact with concentrate may cause irritation. Inhalation of fine mist or aerosols can lead to irritation and inflammation of the respiratory tract and cause pulmonary edema. Symptoms may occur with delay. Swallowing can lead to irritation of the mucous membranes in the mouth, esophagus and stomach.

**Medical Conditions Generally Aggravated by Exposure:** Open cuts and sores may be irritated by contact.

**Emergency and First Aid Procedures:** Eye and Skin Contact – Flush eyes and skin with plenty of water for 15 minutes; apply water gently and do not rub area. For eyes seek medical attention immediately. For skin, if irritation persists, get medical attention. If swallowed, do not induce vomiting. Seek immediate medical attention. If excess inhaled, remove to fresh air; if breathing is difficult, seek medical attention.

## SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps To Be Taken In Case Material Is Released Or Spilled:** Small spills should be flushed with water and picked up with mop. Hydrogen peroxide quickly decomposes to oxygen and water.

**Waste Disposal Method:** Dispose of in accordance with state or local regulations.

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use. Since empty packages retain product residue, follow label warnings even after package is empty.

**Other Precautions:** Do not dispose of in storm drains or streams. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and 40 CFR Part 372.

## SECTION VIII – CONTROL MEASURES

**Respiratory Protection (Specify Type):** Not normally required with adequate ventilation.

**Ventilation:**

**Local Exhaust =** Normally adequate **Mechanical (General) =** Recommended **Special =** N/A **Other =** N/A

**Protective Gloves:** Impervious gloves (neoprene or rubber) with concentrate. **Eye Protection:** Splash goggles with concentrate.

**Other Protective Clothing or Equipment:** Avoid prolonged contact. Wear clothing to prevent contact with concentrate if necessary. Eye wash, safety shower to be available when working with concentrate.

**Work / Hygienic Practices:** Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling; wash clothing before reuse. Completely submerge contaminated clothing or other materials in water prior to drying.

## SECTION IX – TRANSPORTATION INFORMATION

**Applicable regulations:** 49 CFR = no; IMCO = no; IATA = no

**Proper shipping name:** Cleaning compound

**UN NO.:** not applicable **Limited Qty.:** not applicable **Hazard Class =** not applicable

**Labels required:** not required **DOT Exception:** not applicable

**EPA Hazardous waste number / code:** not listed

**Hazardous waste characteristics:** **Ignitability:** not applicable; **Corrosivity:** not applicable; **Reactivity:** not applicable

### DISCLAIMER OF WARRANTIES

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5

Glass, Window, Mirror Cleaners

# GREEN SELECT® GLASS CLEANER



## **Environmentally Preferred Glass Cleaner**

Green Select Glass Cleaner is formulated to be non-toxic, phosphate free, biodegradable, nonflammable, and without fragrance, and hazardous ingredients\*. Hillyard Green Select products are formulated to minimize the impact on the environment, reduce the risk to human health, and at the same time improve worker safety. \*per 29 CFR 1910 1200

## **Effective Cleaning**

Green Select Glass Cleaner will clean windows, TV screens, porcelain, plastic, counter tops, restroom fixtures, and stainless steel. It works well as an all purpose spray and wipe for any surface not harmed by water. Green Select Glass Cleaner uses a unique combination of environmentally preferred surfactants instead of using harmful solvents, which are contained in most conventional glass cleaners. Green Select Glass Cleaner is formulated to be effective with cold water, which is better for the environment because it uses less energy.

## **Lower Environmental Impact**

Not containing volatile organic compounds or fragrance means Green Select Glass Cleaner has a positive effect for good indoor air quality. It contains no phosphates and is biodegradable which means it has a lower impact on the environment than many comparable glass cleaners.

## **Professional Cleaning...By The Numbers**

The Arsenal line of products delivers Hillyard cleaning quality in an easy to dispense, easy to use family of products. Arsenal products are formulated for professional cleaning and are color coded with large matching numbers on both the concentrated and ready to use container labels for easy mixing and use. Ask your Hillyard consultant about the complete line of Arsenal professional cleaning products. They are just another example of high quality from Hillyard.



This product meets the Green Seal™ environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.

## **Arsenal® Dispensing And Packaging Options:**

### **Arsenal Push Button Dispenser**

- 1 Gallon - 4 per case
- Each gallon yields 22 gallons of RTU (ready-to-use) product
- 1/2 Gallon - 6 per case
- Each 1/2 gallon yields 11 gallons of RTU (ready-to-use) product

### **Arsenal Hil-Pac® Premeasured Pouch**

- 1.5 ounce Pouch - 72 per case
- Each pouch yields 1 RTU (ready-to-use) quart

### **Arsenal Dispensing Jug**

- 1 Quart - 12 per case
- Each quart yields 21 quarts of RTU (ready-to-use) product

### **Dilution Rate:**

- 1:20 (6 ounces per gallon)

**HILLYARD**

# GREEN SELECT® GLASS CLEANER

## TECHNICAL DATA



### PHYSICAL PROPERTIES

1. Color .....	Blue	15. Flash point (TCC) .....	None to 200°F
2. Clarity .....	Clear	16. Cleaning effectiveness .....	Excellent
3. Odor .....	Non-objectionable odor	17. Resistance to soil redeposition .....	Excellent
4. Foreign matter .....	None	18. Deleterious action:	
5. Nonvolatile matter, 3 hrs. @ 105°C .....	2.5% +/- 0.5%	A. On aluminum .....	None
6. pH, 25°C .....	3.5 - 4.5	B. On painted surfaces .....	None
7. Specific gravity, 25°C/25°C .....	1.011	19. Volatile organic compounds .....	0% (concentrate)
8. Weight per gallon, 25°C .....	8.42 lbs (3.83 kg)		
9. Water solubility .....	Complete		
10. Phosphates .....	None	TEST METHODS	
11. Freeze-thaw (3 cycles) .....	Stable	5. ASTM D460	
12. Freezing point .....	30°F	7. ASTM D891	
13. Alkaline salts .....	None	8. ASTM D1475	
14. Ammonia .....	None	15. ASTM D56	
		19. ASTM D3960	

1206(#827)

HILLYARD  
**ARSENAL**®

## LABEL INFORMATION #827

# GREEN SELECT® GLASS CLEANER

## CONCENTRATED CLEANER FOR ALL GLASS SURFACES

Contains No Hazardous Ingredients\* - Non-Toxic, Phosphate Free, Biodegradable, Non-Flammable, No Fragrance

\*per 29 CFR 1910.1200

Also cleans porcelain, plastic, enamel, countertops, Formica, restroom fixtures, and stainless steel. Leaves glass squeaky clean. Spray away soil, streaks, smudges, and smears on glass, mirrors, appliances, and all other surfaces not harmed by water.

### DIRECTIONS FOR USE:

- **ARSENAL PUSH BUTTON DISPENSING SYSTEM:** For use with Hillyard Arsenal Push Button Dispensers. Remove shipping cap and attach adapter cap to the one gallon of concentrate. Place into either wire rack or cabinet. Dispense diluted product into a quart spray bottle.
- **ARSENAL JUNIOR:** Remove shipping cap and insert one-half gallon container into bottom of unit until it locks into place.
- **ARSENAL DISPENSING JUG SYSTEM:** Empty contents of quart container into 5 gallons of water in a 5 gallon dispensing jug.
- **ARSENAL HIL-PAC PREMEASURED POUCH:** Empty contents of pouch into a quart of water. See quart label for further instructions.

**SPECIAL INSTRUCTIONS:** For use only with Hillyard Arsenal Dilution System. When used on sensitive electrical equipment always spray on paper towel or clean cloth and then wipe area to be cleaned. Use trigger sprayer, holding 6-8 inches from surface. Always work from bottom up. For best results use micro fiber cloth. To conserve energy always use cold tap water.

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer clean, dry container for recycling or reconditioning.

### DISCLAIMER OF WARRANTY

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

**VOC of concentrate = 0%**

**HMIS Rating:** Health = 1, Flammability = 0, Reactivity = 0

## CAUTION

### PROLONGED CONTACT MAY CAUSE EYE IRRITATION

**CONTAINS:** WATER (CAS #7732-18-5); ALKYL POLYGLUCOSIDE MIXTURE (NONIONIC SURFACTANT) (CAS #98283-67-1). Do not take internally. Avoid prolonged contact with eyes and skin.

**FIRST AID: Eye contact:** Flush with water for 15 minutes; remove contact lenses and flush eyes again with water. **If swallowed:** Call a physician, hospital emergency room, or poison control center immediately; induce vomiting.

**See Material Safety Data Sheet for additional information.**

**KEEP OUT OF REACH OF CHILDREN**

**MATERIAL SAFETY DATA SHEET****NFPA RATING:** Health = 0 Flammability = 0 Reactivity = 0**HMIS RATING:** Health = /0 Flammability = 0 Reactivity = 0**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION (1133A)****Manufacturer's Name:** HILLYARD INDUSTRIES**Product Name:** ARSENAL GREEN SELECT  
GLASS CLEANER**Address:** 302 North Fourth Street  
St. Joseph, MO 64501**Date Prepared:** December 7, 2006**Prepared by:** Regulatory Affairs Department**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)**Other information calls:** (816) 233-1321 (Ext. 8285)<http://www.hillyard.com>**SECTION II – INGREDIENTS/IDENTITY INFORMATION****Components****(Specific Chemical Identity:**

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS	
				RECOMMENDED	%
Water	7732-18-5	none	none	N/A	---
Alkyl polyglucoside mixture (nonionic surfactant)	98283-67-1	not established	not established	N/A	---

VOC = 0 g/l.; VOC Concentrate = 0 g/l.

**SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**

<b>Boiling Point:</b> 208°F	<b>Specific Gravity (H<sub>2</sub>O = 1):</b> 25°C = 1.01 & 39°C = 1.01
<b>Vapor Pressure (mm Hg.):</b> 17.5	<b>Percent Volatile by Volume (%):</b> 97.3
<b>Vapor Density (AIR = 1):</b> 0.6	<b>Evaporation Rate (ethyl ether = 1):</b> slower than 1
<b>Solubility in Water:</b> complete	<b>Appearance and Odor:</b> blue liquid; non-objectionable odor
<b>pH (concentrate) =</b> 3.9	

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA****Flash point:** None to 200°F (T.C.C.) **Flammable Limits:** LEL = N/A UEL = N/A**Extinguishing Media:** Water spray, Carbon Dioxide, Dry Chemical**Special Fire Fighting Procedures:** Wear a self-contained breathing apparatus, goggles and nitrile or rubber gloves with concentrate.**Unusual Fire and Explosion Hazards:** None known to manufacturer.**SECTION V – PHYSICAL HAZARDS****Stability:** Stable**Conditions to Avoid:** None known to Hillyard**Incompatibility (Materials to Avoid):** Strong oxidizing materials**Hazardous Decomposition Products or Byproducts:** As with any organic material, combustion will produce carbon dioxide and probably carbon monoxide.**Hazardous Polymerization:** Will not occur**Conditions to Avoid:** None known**SECTION VI – HEALTH HAZARD DATA****Routes of entry:** Inhalation? no Eye? No Skin? no Ingestion? no**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. When tested per the Federal Hazardous Substance Act method 16 CFR 1500 concentrated product was not a eye nor a skin irritant; per the FHSA method 16 CFR 1500. Not acutely toxic (oral) to rats at 5 gm/kg. per upper limit test. Acute inhalation = 1 hour upper limit test not toxic at 21.7 mg/L.

2. None known to Hillyard.

**SECTION VI – HEALTH HAZARD DATA continued**

**Chemical listed as Carcinogen or Potential Carcinogen:**

**National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No**

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%

**Signs and Symptoms of Exposure:** Overexposure may cause drowsiness, headache and uncoordination.

**Medical Conditions Generally Aggravated by Exposure:** None known by manufacturer.

**Emergency and First Aid Procedures:** Eye and skin contact: Flush with plenty of water for 15 minutes; remove contact lenses and flush eyes again with water. If eye irritation persists get medical attention. If swallowed: Call a physician, hospital emergency room or poison control center immediately; induce vomiting.

**SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE**

**Steps To Be Taken In Case Material Is Released Or Spilled:** Absorb large spills with floor dry material. Small spills: Flush with water and pick up with mop.

**Waste Disposal Method:** Dispose of in accordance with state and local regulations.

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use.

**Other Precautions:** Do not take internally.

**SECTION VIII – CONTROL MEASURES**

**Respiratory Protection (Specify Type):** None required.

**Ventilation:** Follow good engineering practices for ventilation in public areas.

**Local Exhaust = N/A Mechanical (General) = Recommended Special = N/A Other = N/A**

**Protective Gloves: N/A Eye Protection: N/A**

**Other Protective Clothing or Equipment:** N/A

**Work / Hygienic Practices:** Wash thoroughly after handling.

**SECTION IX – TRANSPORTATION INFORMATION**

**Applicable regulations:** CFR = No IMCO = No IATA = No

**Proper shipping name for air, foreign water for highway:** Cleaning compound

**UN No.:** not applicable for highway **Limited Qty.:** not applicable **Hazard class:** not applicable for highway

**Labels required:** not required for highway **DOT Exception:** not applicable

**EPA Hazardous waste characteristics:**

**Ignitability = Not applicable; Corrosivity = Not applicable; Reactivity = Not applicable.**

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## *Environmental Certification*

*Presented to*

### **HILLYARD INDUSTRIES, INC.**

Green Seal, Inc. certifies that the following products comply with or exceed Green Seal's Environmental Standard for General-Purpose, Bathroom, and Glass Cleaners Used for Industrial and Institutional Purposes (GS-37) and are licensed to use the Green Seal Certification Mark:

#827 Arsenal Green Select Glass Cleaner / #960 Green Select Glass Cleaner

#828 Arsenal Green Select Degreaser / #961 Green Select Degreaser

#829 Arsenal Green Select Bathroom Cleaner / #962 Green Select Bathroom Cleaner

Certified this 8th day of December, 2003.

Mark T. Petruzzi, Vice President of Certification

# HILLYARD ARSENAL®

## SUPROX®

### SUPER CONCENTRATED HYDROGEN PEROXIDE MULTI-PURPOSE CLEANER

#833



#### **Versatile Cleaning Power**

This versatile, highly concentrated multi-purpose cleaner contains stabilized Hydrogen peroxide and natural citrus solvents to provide highly effective cleaning for many surfaces including glass, restroom fixtures, tile and grout, counters, floors, and carpets. The Hydrogen peroxide formulation in Arsenal Suprox® also aids in brightening grout, enhancing the appearance of tiled surfaces.

#### **Environmentally Preferred**

When compared to traditional multi-purpose cleaners, Arsenal Suprox has been formulated for reduced toxicity to lessen the impact on environmental health, worker health, and building occupant health. Arsenal Suprox is a welcome addition to its Green Seal cleaning programs, and is part of the Hillyard Green Select® Program.

#### **Consolidates The Cleaning Process**

Consolidate multiple products within your cleaning process. Arsenal Suprox can save time, effort, and money by eliminating redundant products and simplifying the training process, resulting in an enhanced cleaning process.

#### **Professional Cleaning...By The Numbers**

The Arsenal line of products delivers Hillyard cleaning quality in an easy-to-dispense, easy-to-use family of products. Arsenal products are formulated for professional cleaning and are color-coded with large matching numbers on both the concentrated and ready-to-use container labels for easy mixing and use. Ask your Hillyard consultant about the complete line of Arsenal professional cleaning products. They are just another example of high quality from Hillyard.

#### **Arsenal® Dispensing And Packaging Options:**

##### **Arsenal Push Button Dispenser**

1 Gallon - 4 per case

Each gallon yields 26.6 gallons of RTU (ready-to-use) product

1/2 Gallon - 6 per case

Each 1/2 gallon yields 13.3 gallons of RTU (ready-to-use) product

##### **Dilution Rate:**

1:26 (5 ounces per gallon low flow)

1:128 (1 ounce per gallon high flow)

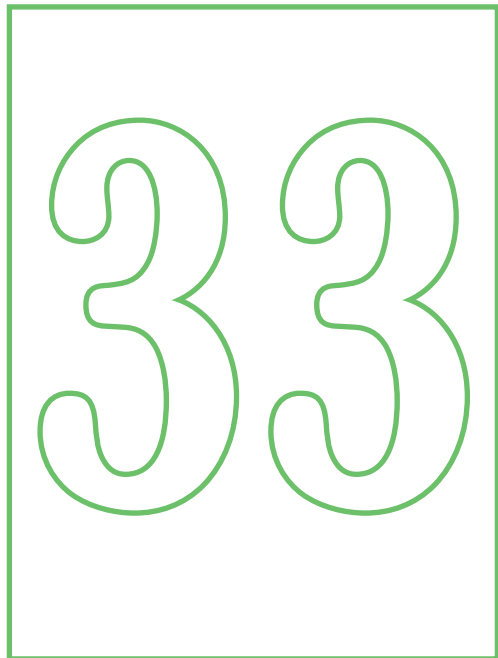


This product meets the Green Seal™ environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.

## HILLYARD

Cleaning Solutions Since 1907

© 2008, Hillyard, Inc., "CHECKERBOARD" Trademark ©



# SUPROX®

#833

## TECHNICAL DATA

### PHYSICAL PROPERTIES

- |  |   |
|--|---|
| 1. Color.....Slightly yellow to colorless                      | 11. Specific gravity at 25°C.....1.03       |
| 2. Fragrance.....Citrus  | 12. Weight / gallon.....8.55 lbs. (3.89 kg) |
| 3. Clarity.....Clear   |   |
| 4. Foreign matter.....None                                     | TEST METHODS                                |
| 5. Solubility in water.....Complete                            | 6. ASTM E70                                 |
| 6. pH.....3.5 – 4.5  | 7. ASTM D2834                               |
| 7. Nonvolatile matter.....5.0 +/- 0.5%                         | 10. ASTM D56                                |
| 8. Freeze/thaw stability (3 cycles).....Stable after agitation | 11. ASTM D891                               |
| 9. Heat stability at 125°F (52°C).....Stable                   | 12. ASTM D1475                              |
| 10. Flash point (T.C.C.).....155°F typical                     |   |

0105(#833)



## LABEL INFORMATION #833

# SUPROX®

**PEROXIDE CLEANER**

This versatile, highly concentrated multi-purpose cleaner contains stabilized Hydrogen peroxide and natural citrus solvents. In high flow dilution (1 oz.) good for floor and autoscrubber cleaning. In low flow (5 oz.) dilution, will clean glass, restroom fixtures, tile and grout, counters and carpets. Aids in brightening grout. Formulated for reduced toxicity to lessen the impact on environmental health, worker health, and building occupant health.

### DIRECTIONS FOR USE:

ARSENAL PUSH BUTTON DISPENSING SYSTEM: Remove shipping cap and attach adapter cap to the gallon of concentrate. Place into either wire rack or cabinet. Fill quart bottle and follow bottle directions.

ARSENAL JR. DISPENSING SYSTEM: Remove shipping cap and insert container into bottom of dispenser until it locks into place. Fill quart bottle and follow bottle directions.

**SPECIAL INSTRUCTIONS:** For use only with Hillyard Arsenal Dilution System. For best results use micro fiber cloth. To conserve energy always use cold tap water.

**NOTICE:** Do not use with ammonia or bleaches. Before carpet spotting, test product in an inconspicuous area to ensure compatibility.

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent), then offer clean, dry container for recycling or reconditioning.

 This product meets the Green Seal™ environmental standard for industrial and institutional cleaners based on its reduced human and aquatic toxicity and reduced smog production potential.

### DISCLAIMER OF WARRANTY

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

VOC (Concentrate) = 0.40%

HMIS Rating: Health = 1, 2, Flammability = 1, Reactivity = 1

## DANGER

**HARMFUL IF SWALLOWED – CAUSES EYE BURNS**

**MAY CAUSE SKIN IRRITATION – MAY CAUSE RESPIRATORY IRRITATION**

**CONTAINS:** HYDROGEN PEROXIDE (CAS #7722-84-1); WATER (CAS #7732-18-5). Do not get in eyes, on skin, and clothing. Do not ingest.

**FIRST AID:** Eye and Skin Contact: Flush eyes and skin with plenty of water for 15 minutes; apply water gently and do not rub area. If irritation persists, get medical attention. Seek immediate medical attention. If swallowed, do not induce vomiting. Seek immediate medical attention. If excess inhaled, remove to fresh air; if breathing is difficult seek medical attention.

**See Material Safety Data Sheet for additional information.**

**KEEP OUT OF REACH OF CHILDREN**



**MATERIAL SAFETY DATA SHEET**

**NFPA RATING:** Health = 2 Flammability = 1 Reactivity = 0

**HMIS RATING:** Health = /2 Flammability = 1 Reactivity = 1

**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION (1054B)**

**Manufacturer's Name:** HILLYARD INDUSTRIES

**Product Name:** ARSENAL SUPROX

**Address:** 302 North Fourth Street

**Date Prepared:** September 26, 2006

St. Joseph, MO 64501

**Prepared by:** Regulatory Affairs Department

**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

**Other information calls:** (816) 233-1321 (Ext. 8285)

<http://www.hillyard.com>

**SECTION II – INGREDIENTS/IDENTITY INFORMATION****Components**

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Hydrogen Peroxide	7722-84-1	1.4 mg/m <sup>3</sup>	1.4 mg/m <sup>3</sup>	N.A.	5 - 8%
Water	7732-18-5	none	none	N.A.	---
Complex Surfactant Blend	68991-48-0 & 68439-46-3	not established	not established	N.A.	---

VOC (Concentrate) = 0.40%; VOC (min. dilution 1:10) = 0.04%

**SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**

<b>Boiling Point:</b>	217°F	<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	25°C = 1.02 & 39°C = 1.02
<b>Vapor Pressure (mm Hg.):</b>	17.6	<b>Percent Volatile by Volume (%):</b>	94.6%
<b>Vapor Density (AIR = 1):</b>	0.65	<b>Evaporation Rate (ethyl ether = 1):</b>	Slower than 1
<b>Solubility in Water:</b>	complete	<b>Appearance and Odor:</b>	Clear, colorless liquid, Citrus odor
<b>pH (concentrate) =</b>	4-5		

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA**

**Flash point:** >145°F corrected (T.C.C.) **Flammable Limits:** LEL = Not determined UEL = Not determined

**Extinguishing Media:** Do NOT use CO<sub>2</sub> extinguisher on this material: use only water spray or appropriate foam. Do not use organic compounds on this material.

**Special Fire Fighting Procedures:** As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Cool with water spray.

**Unusual Fire and Explosion Hazards:** Release of oxygen may support combustion. Contact with incompatible materials (e.g. metals, alkalis, and strong reducing agents) may cause hazardous decomposition resulting in the release of heat, steam, and oxygen. Exposure to heat may cause hazardous decomposition. Hydrogen peroxide may spontaneously decompose above 150°C. Do not mix with kerosene or gasoline.

**SECTION V – PHYSICAL HAZARDS**

**Stability:** Stable **Conditions to Avoid:** Heat and flame.

**Incompatibility (Materials to Avoid):** Metals, Reducing agents, Alkalis, Combustible materials, Organic materials, Salt of heavy metals, Impurities.

**Hazardous Decomposition Products or Byproducts:** Oxygen, oxides of carbon and steam.

**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** None known to Manufacturer

**SECTION VI – HEALTH HAZARD DATA**

**Routes of entry:** Inhalation? yes Skin? yes Ingestion? LD50 greater than 5 g/kg

**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Contact with concentrate may cause eye burns and prolonged skin contact with concentrate may cause slight skin irritation. Ingestion can cause nausea, vomiting and gastrointestinal irritation. Prolonged inhalation may cause respiratory irritation. Acute oral toxicity of concentrate per EPA method = >5000 mg./kg. Acute dermal irritation = Non –irritating. Toxicity Category IV per EPA Method. Tests show the product is not a skin sensitizer. Acute inhalation toxicity = LC50>2.13 mg./Liter.

2. None known to Hillyard Industries when used according to label directions.

## SECTION VI – HEALTH HAZARD DATA continued

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

**Signs and Symptoms of Exposure:** Eye symptoms may occur with delay such as conjunctiva and burns; reaction may be delayed. Prolonged skin contact with concentrate may cause irritation. Inhalation of fine mist or aerosols can lead to irritation and inflammation of the respiratory tract and cause pulmonary edema. Symptoms may occur with delay. Swallowing can lead to irritation of the mucous membranes in the mouth, esophagus and stomach.

**Medical Conditions Generally Aggravated by Exposure:** Open cuts and sores may be irritated by contact.

**Emergency and First Aid Procedures:** Eye and Skin Contact – Flush eyes and skin with plenty of water for 15 minutes; apply water gently and do not rub area. For eyes seek medical attention immediately. For skin, if irritation persists, get medical attention. If swallowed, do not induce vomiting. Seek immediate medical attention. If excess inhaled, remove to fresh air; if breathing is difficult, seek medical attention.

## SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps To Be Taken In Case Material Is Released Or Spilled:** Small spills should be flushed with water and picked up with mop. Hydrogen peroxide quickly decomposes to oxygen and water.

**Waste Disposal Method:** Dispose of in accordance with state or local regulations.

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use. Since empty packages retain product residue, follow label warnings even after package is empty.

**Other Precautions:** Do not dispose of in storm drains or streams. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and 40 CFR Part 372.

## SECTION VIII – CONTROL MEASURES

**Respiratory Protection (Specify Type):** Not normally required with adequate ventilation.

**Ventilation:**

**Local Exhaust =** Normally adequate **Mechanical (General) =** Recommended **Special =** N/A **Other =** N/A

**Protective Gloves:** Impervious gloves (neoprene or rubber) with concentrate. **Eye Protection:** Splash goggles with concentrate.

**Other Protective Clothing or Equipment:** Avoid prolonged contact. Wear clothing to prevent contact with concentrate if necessary. Eye wash, safety shower to be available when working with concentrate.

**Work / Hygienic Practices:** Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling; wash clothing before reuse. Completely submerge contaminated clothing or other materials in water prior to drying.

## SECTION IX – TRANSPORTATION INFORMATION

**Applicable regulations:** 49 CFR = no; IMCO = no; IATA = no

**Proper shipping name:** Cleaning compound

**UN NO.:** not applicable **Limited Qty.:** not applicable **Hazard Class =** not applicable

**Labels required:** not required **DOT Exception:** not applicable

**EPA Hazardous waste number / code:** not listed

**Hazardous waste characteristics:** **Ignitability:** not applicable; **Corrosivity:** not applicable; **Reactivity:** not applicable

### DISCLAIMER OF WARRANTIES

**NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.**

**The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate.**

**THE BUYER OR USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE, MISUSE OR DISPOSAL OF THIS PRODUCT. THE BUYER OR USER IS RESPONSIBLE TO COMPLY WITH ALL FEDERAL, STATE OR LOCAL REGULATIONS CONCERNING THE USE, MISUSE OR DISPOSAL OF THESE PRODUCTS.**



## *Environmental Certification*

*Presented to*

### **HILLYARD INDUSTRIES, INC.**

Green Seal, Inc. certifies that the following product complies with or exceeds Green Seal's Environmental Standard for General-Purpose, Bathroom, and Glass Cleaners Used for Industrial and Institutional Purposes (GS-37) and is licensed to use the Green Seal Certification Mark:

#833 Arsenal Suprox Concentrate

*(Specific pack sizes listed in certification letter)*

Certified this 15th day of April, 2005.

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Mark T. Petruzzi, Vice President of Certification

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Vacuum Cleaners

## OGS List of Vacuum Cleaners

Manufacturer	Web link	Model	Type	Carpet Style <sup>1</sup>	Preferred Source or State Contract and Contract Information <sup>2</sup>
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	Advance Back Vacuum HEPA	Back Pack	Low Pile	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	Advance Canister GD 1005	Canister	Low Pile	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	Advance Canister GD 1010	Canister	Low Pile	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	Advance CarpeTrier XP 6500C, use with Berina Micro Lined paper bag, Electrostatic outer filter	Upright	All	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	Advance CarpeTwin 14, use with OEM bag	Upright	Low Pile	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	Advance CarpeTwin 18, use with OEM bag	Upright	Low Pile	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	Advance PowerOne 12, use with PowerOne Paper 56704392	Upright	All	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	Advance PowerOne 15, use with PowerOne Paper 56704392	Upright	All	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	Advance Terra 128B, bagless Sweeper	Large Area Vacuum	Low Pile	

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Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	Advance Terra 132B, bagless Sweeper	Large Area Vacuum	Low Pile	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	Advance Terra 3700B, bagless Sweeper	Large Area Vacuum	Low Pile	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	ReliaVac 12	Upright	Low Pile	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	ReliaVac 12DC	Upright	All	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	ReliaVac 12HP	Upright	All	
Advance, Nilfisk-Advance, Inc.	<a href="http://www.advance-us.com">www.advance-us.com</a>	ReliaVac16HP	Upright	All	
Aerus LLC	<a href="http://www.aerusonline.com">www.aerusonline.com</a>	Aerus-Lux 3000 U140B	Upright	All	
Aerus LLC	<a href="http://www.aerusonline.com">www.aerusonline.com</a>	Aerus-Lux 6000 U155A	Upright	All	
Aerus LLC	<a href="http://www.aerusonline.com">www.aerusonline.com</a>	Aerus-Lux 6000 U156A	Upright	All	

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Aerus LLC	<a href="http://www.aerusonline.com">www.aerusonline.com</a>	Aerus-Lux 7000 C153-A	Upright	All	
Aerus LLC	<a href="http://www.aerusonline.com">www.aerusonline.com</a>	Aerus-Lux 9000 C134F	Canister	All	
Aerus LLC	<a href="http://www.aerusonline.com">www.aerusonline.com</a>	Aerus-Lux Guardian C154A	Canister	All	
Alfred Karcher GmbH	<a href="http://www.karcher.com">www.karcher.com</a>	Karcher CV 36/2	Upright	All	
Alfred Karcher GmbH	<a href="http://www.karcher.com">www.karcher.com</a>	Karcher CV 46/2	Upright	All	
Alfred Karcher GmbH	<a href="http://www.karcher.com">www.karcher.com</a>	Karcher CV30/1, use with paper bag and fleece bag	Upright	All	
Alfred Karcher GmbH	<a href="http://www.karcher.com">www.karcher.com</a>	Karcher CV-38/1, use with fleece filter bag 6.904-304 and with paper filter bag 6.904-293, HEPA outlet filter	Upright	All	
ALTO USA	<a href="http://clarkeus.com">clarkeus.com</a>	Alto D-14, use with 50721B bag and HEPA Inner Filter	Upright	All	
ALTO USA	<a href="http://clarkeus.com">clarkeus.com</a>	Alto D-18, use with 50721B bag and HEPA Inner Filter	Upright	All	

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Aramark Corporation	<a href="http://www.aramark.com">www.aramark.com</a>	Aramark Provac 2000	Walk Behind	Low Pile	
Aramark Corporation	<a href="http://www.aramark.com">www.aramark.com</a>	Aramark Provac LB	Walk Behind	Low Pile	
Castex Inc. (Tennant Co.)	<a href="http://www.castex.com">www.castex.com</a>	Castex BPV 1500, use with Enviro-Filter bag and standard floor nozzle (605583)	Back Pack	Low Pile	
Castex Inc. (Tennant Co.)	<a href="http://www.castex.com">www.castex.com</a>	Castex SWP-2800, use with HEPA outer filter	Walk Behind	Low Pile	
Castex Inc. (Tennant Co.)	<a href="http://www.castex.com">www.castex.com</a>	Castex UV 1400, use with OEM Disposable bag (577294000)	Upright	All	
Castex Inc. (Tennant Co.)	<a href="http://www.castex.com">www.castex.com</a>	Castex Viper, use with Enviro-Filter disposable bag	Upright	All	
CFR Corp.	<a href="http://www.cfrcorp.com">www.cfrcorp.com</a>	CFR 35EC	Upright	All	
CFR Corp.	<a href="http://www.cfrcorp.com">www.cfrcorp.com</a>	CFR 50EC	Upright	All	
Clarke	<a href="http://www.clarkeus.com">www.clarkeus.com</a>	Clarke S-12cc, 03082B, use with Dirt collector cup and Micro-Lined cloth outer bag	Upright	All	



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Clarke	<a href="http://www.clarkeus.com">www.clarkeus.com</a>	Clarke S-12PF, 03112A, use with OEM Paper inner bag and Micro-Lined cloth outer bag	Upright	All	
Clarke	<a href="http://www.clarkeus.com">www.clarkeus.com</a>	Clarke S-16, 03114A, use with OEM Paper inner bag and Micro-Lined cloth outer bag equipped	Upright	All	
Clarke	<a href="http://www.clarkeus.com">www.clarkeus.com</a>	Clarke S-16, 03116A , use with Dirt collector cup and Micro-Lined cloth outer bag	Upright	All	
Clarke	<a href="http://www.clarkeus.com">www.clarkeus.com</a>	Clarke CombiVac 12-03102A, use with 50721B inner bag	Upright	All	
Clarke	<a href="http://www.clarkeus.com">www.clarkeus.com</a>	Clarke CombiVac 14-03104A, use with 50721B inner bag	Upright	All	
Clarke	<a href="http://www.clarkeus.com">www.clarkeus.com</a>	Clarke FiltraVac 14-03106A, use with 50721B inner bag	Upright	All	
Clarke	<a href="http://www.clarkeus.com">www.clarkeus.com</a>	Clarke FiltraVac 18-03106A, use with 50721B inner bag	Upright	All	
Hawk Enterprises, Inc.		Hawk Enterprises UVT 14	Upright	All	
Hawk Enterprises, Inc.		Hawk Enterprises UVT 18	Upright	All	

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Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover bagless U5280-940	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover bagless U5280-955	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover bagless U5290-900	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover bagless U5290-950	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover bagless U5296-900	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover bagless U5298-900	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover bagless U5298-940	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Breathe Easy U5254-900, use with type Z Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Breathe Easy U5254-950, use with type Z Allergen inner bag, Allergen outer filter	Upright	All	

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Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Breathe Easy U5256-900, use with type Z Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Breathe Easy U5256-950, use with type Z Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Breathe Easy U5258-900, use with type Z Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Breathe Easy U5258-950, use with type Z Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Breathe Easy U5341-900, use with type Z Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover C1830 Dubl_Duty	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover C1834 Dubl-Duty	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Commercial C1705-900 with WindTunnel Technology, use with Allergen cloth inner bag, Allergen outer filter	Upright	All	SC - Award 4513 - MSC
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Conquest C1800, use with cloth outer bag, cloth inner bag	Upright	All	SC - Award 4513 - MSC

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Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Conquest C1810, use with cloth outer bag, cloth inner bag	Upright	All	SC - Award 4513 - MSC
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover PowerMax Deluxe Canister S3530, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover PowerMax Deluxe Canister S3530-050, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover PowerMax Deluxe Canister S3580-050, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover PowerMax Deluxe Canister S3601-050, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover PowerMax Deluxe Canister S3606, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover PowerMax Deluxe Canister S3606-050, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover PowerMax Deluxe Canister S3607, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover PowerMax Deluxe Canister S3607-050, use with type S Allergen inner bag	Canister	All	

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Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover PowerMax Deluxe Canister S3610-050, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover PowerMax Deluxe Canister S3614, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Preferred Elite U5046-930, use with type A Allergen inner bag	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Preferred Elite U5064-940, use with type A Allergen inner bag	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Preferred Elite U5093-940, use with type A Allergen inner bag	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover Preferred Elite U5093-955, use with type A Allergen inner bag	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover U5115-900, use with type Z Allergen inner bag	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover U5115-950, use with type Z Allergen inner bag	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover U5117-900, use with type Z Allergen inner bag	Upright	All	

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Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover U5117-950, use with type Z Allergen inner bag	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover U5133-940, use with type Z Allergen inner bag	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover U5134-900, use with type Z Allergen inner bag	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover U5134-920, use with type Z Allergen inner bag	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover U5134-950, use with type Z Allergen inner bag	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel bagless U5720-900, use with HEPA outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel bagless U5720-950, use with HEPA outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel bagless U5720-990, use with HEPA outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel bagless U5721-900, use with HEPA outer filter	Upright	All	

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Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel bagless U5750-900, use with HEPA outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel bagless U5750-955, use with HEPA outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel bagless U5755-900, use with HEPA outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel bagless U5757-900, use with HEPA outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel bagless U5761-900, use with HEPA outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Plus Canister S3630, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Plus Canister S3630-050, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Plus Canister S3636-050, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Plus Canister S3639, use with type S Allergen inner bag	Canister	All	

## OGS List of Vacuum Cleaners

Manufacturer	Web link	Model	Type	Carpet Style <sup>1</sup>	Preferred Source or State Contract and Contract Information <sup>2</sup>
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Plus Canister S3639-050, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Plus Canister S3643, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Plus Canister S3646, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Plus Canister S3646-020, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Plus Canister S3649, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Plus Canister S3655-050, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Plus Canister S3661, use with type S Allergen inner bag	Canister	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled bagless U6630-900, use with HEPA outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled bagless U6645-900, use with HEPA outer filter	Upright	All	



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Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled bagless U6655-900, use with HEPA outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled bagless U6660-900, use with HEPA outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6425-950, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6429-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6430-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6431-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6432-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6435-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6441-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	

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Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6441-940, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6446-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6458-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6459-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6460-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6470-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6470-910, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Self Propelled Ultra Upright U6472-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Supreme U5433-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	

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Manufacturer	Web link	Model	Type	Carpet Style <sup>1</sup>	Preferred Source or State Contract and Contract Information <sup>2</sup>
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Supreme U5446-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Supreme U5452-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Supreme U5456-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Supreme U5460-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Supreme U5465-990, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Supreme U5475-960, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Supreme U5477-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Hoover Company	<a href="http://www.hoover.com">www.hoover.com</a>	Hoover WindTunnel Supreme U6462-900, use with type Y Allergen inner bag, Allergen outer filter	Upright	All	
Kent-Euroclean	<a href="http://www.kenteuroclean.com">www.kenteuroclean.com</a>	Euroclean Edge 12	Upright	All	

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Kent-Euroclean	<a href="http://www.kenteuroclean.com">www.kenteuroclean.com</a>	Euroclean UZ934	Canister	All	
Kent-Euroclean	<a href="http://www.kenteuroclean.com">www.kenteuroclean.com</a>	Kent Blue 32	Upright, Large Area	Low Pile	
Kent-Euroclean	<a href="http://www.kenteuroclean.com">www.kenteuroclean.com</a>	Kent Champion 28	Upright, Large Area	Low Pile	
Kent-Euroclean	<a href="http://www.kenteuroclean.com">www.kenteuroclean.com</a>	Kent DuraVac 152	Upright	Low Pile	
Kent-Euroclean	<a href="http://www.kenteuroclean.com">www.kenteuroclean.com</a>	ReliaVac 12	Upright	All	
Kent-Euroclean	<a href="http://www.kenteuroclean.com">www.kenteuroclean.com</a>	ReliaVac 12DC	Upright	All	
Kent-Euroclean	<a href="http://www.kenteuroclean.com">www.kenteuroclean.com</a>	ReliaVac 12Hp	Upright	All	
Kent-Euroclean	<a href="http://www.kenteuroclean.com">www.kenteuroclean.com</a>	ReliaVac 16HP	Upright	All	
Kent-Euroclean	<a href="http://www.kenteuroclean.com">www.kenteuroclean.com</a>	SelectVac 11	Upright	Low Pile	

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Manufacturer	Web link	Model	Type	Carpet Style <sup>1</sup>	Preferred Source or State Contract and Contract Information <sup>2</sup>
Kirby Company	<a href="http://www.kirby.com">www.kirby.com</a>	Kirby G7D Diamond Edition, use with Kirby Micron Magic HEPA filter bag	Upright	All	
Kirby Company	<a href="http://www.kirby.com">www.kirby.com</a>	Kirby Ultimate G Series, G7D, use with cloth outer bag, Kirby HEPA Hygienic inner bag)	Upright	All	
Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic Heavy Duty Plus MC-V6602, use with OEM type U-6 inner bag	Upright	All	
Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic Heavy Duty Plus MC-V6603, use with OEM type U-6 inner bag	Upright	All	
Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic Heavy Duty Plus, MC-V5502, use with OEM type U-6 inner bag	Upright	All	
Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic MC-V414	Commercial bagless Upright	All	
Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic Ultra-Pro MC-V210, use with OEM type U-6 inner bag	Upright	All	
Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic Ultra-Pro MC-V215, use with OEM type U-6 inner bag	Upright	All	
Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic Ultra-Pro MC-V216, use with OEM type U-6 inner bag	Upright	All	

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Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic Ultra-Pro MC-V225, use with OEM type U-6 inner bag	Upright	All	
Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic Ultra-Pro MC-V315, use with OEM type U-6 inner bag	Upright	All	
Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic Ultra-Pro MC-V325, use with OEM type U-6 inner bag	Upright	All	
Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic Ultra-Pro, MC-V110, use with OEM type U-6 inner bag	Upright	All	
Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic Ultra-Pro, MC-V120, use with OEM type U-6 inner bag	Upright	All	
Matsushita Home Appliance Company	<a href="http://www.panasonic.com/vac">www.panasonic.com/vac</a>	Panasonic Ultra-Pro, MC-V5504, use with OEM type U-6 inner bag	Upright	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele Exclusive S548 with SEB226 Powerbrush, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S314 Midsize, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S314 Red Star, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	

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Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S314 White Star, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S514 Solaris ElectroPlus, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S514 Solaris TurboPlus, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S514 Solaris, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S524 Deluxe Midsize, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S528 Filtration Guard, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S538 Monte Verde, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S544 Artico, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S548 Exclusive, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	

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Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S558 Silver Moon, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S624 Deluxe Full Size use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
Miele, Inc.	<a href="http://www.mieleusa.com">www.mieleusa.com</a>	Miele S658 Blue Moon, use with FJM IntensiveClean bag/HEPA exhaust filter	Canister	All	
MinuteMan International, Inc.	<a href="http://www.minutemanintl.com">www.minutemanintl.com</a>	MinuteMan MPV 14 #C37115-4, use with Type 370202 paper inner bag	Upright	All	SC - Award 4513 - MSC
Nobles Industries (Tennant Co.)	<a href="http://www.nobles.com">www.nobles.com</a>	Nobles Pathmaker 14 - 608735	Upright	All	
Nobles Industries (Tennant Co.)	<a href="http://www.nobles.com">www.nobles.com</a>	Nobles PortaPac I-609101	Back Pack	Low Pile	
Nobles Industries (Tennant Co.)	<a href="http://www.nobles.com">www.nobles.com</a>	Nobles PortaPac II	Back Pack	Low Pile	
Nobles Industries (Tennant Co.)	<a href="http://www.tennantco.com">www.tennantco.com</a>	Nobles Scout 28	Walk Behind	Low Pile	
Nobles Industries (Tennant Co.)	<a href="http://www.nobles.com">www.nobles.com</a>	Nobles Tidy-Vac	Canister	Low Pile	



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Nobles Industries (Tennant Co.)	<a href="http://www.nobles.com">www.nobles.com</a>	Nobles Ultra Glide Dual Motor, 12 inch # 614307, use with 101505 paper bag	Upright	Low Pile	
Nobles Industries (Tennant Co.)	<a href="http://www.nobles.com">www.nobles.com</a>	Nobles Ultra Glide Dual Motor, 15 inch # 614307, use with 101505 paper bag	Upright	Low Pile	
Nobles Industries (Tennant Co.)	<a href="http://www.nobles.com">www.nobles.com</a>	Nobles Ultra Glide Dual Motor, 18 inch # 614222, use with 101505 paper bag	Upright	Low Pile	
Nobles Industries (Tennant Co.)	<a href="http://www.nobles.com">www.nobles.com</a>	Nobles Ultra Glide Single Motor, 12 inch # 614219, use with 101505 paper bag	Upright	All	
Nobles Industries (Tennant Co.)	<a href="http://www.nobles.com">www.nobles.com</a>	Nobles Ultra Glide Single Motor, 15 inch # 614220, use with 101505 paper bag	Upright	All	
Nobles Industries (Tennant Co.)	<a href="http://www.nobles.com">www.nobles.com</a>	Nobles Viper - 608669	Upright	All	
NSS Enterprises Inc.	<a href="http://www.nss.com">www.nss.com</a>	NSS Pacer 112 UE	Upright	All	
NSS Enterprises Inc.	<a href="http://www.nss.com">www.nss.com</a>	NSS Pacer 115 UE	Upright	All	
NSS Enterprises Inc.	<a href="http://www.nss.com">www.nss.com</a>	NSS Pacer 214 UE	Upright	All	

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NSS Enterprises Inc.	<a href="http://www.nss.com">www.nss.com</a>	NSS Pacer 218 UE	Upright	All	
Oreck Corporation	<a href="http://www.oreck.com">www.oreck.com</a>	Oreck DTX 1200B, with T-ET511PK inner bag; OEM Power head	Canister	All	
Oreck Corporation	<a href="http://www.oreck.com">www.oreck.com</a>	Oreck DTX1400B with T-ET511PK inner bag; HEPA outer filter; OEM Powerhead	Canister	All	
Oreck Corporation	<a href="http://www.oreck.com">www.oreck.com</a>	Oreck Dual Stack , DS 1600 Series	Upright	All	
Oreck Corporation	<a href="http://www.oreck.com">www.oreck.com</a>	Oreck U 4000 Series, XL Ultra - All Models	Upright	All	
Oreck Corporation	<a href="http://www.oreck.com">www.oreck.com</a>	Oreck XL 3000 Series, XL-Squared	Upright	All	
Oreck Corporation	<a href="http://www.oreck.com">www.oreck.com</a>	Oreck XL21 Series	Upright	All	
Pacific Floor Care	<a href="http://www.pacificfloorcare.com">www.pacificfloorcare.com</a>	Genius 14	Upright	All	
Pacific Floor Care	<a href="http://www.pacificfloorcare.com">www.pacificfloorcare.com</a>	Genius 18	Upright	All	

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Powr-Flite	<a href="http://www.powrflite.com">www.powrflite.com</a>	HSN Powr-Flite Ultralight HSPF60	Upright	All	
Powr-Flite	<a href="http://www.powrflite.com">www.powrflite.com</a>	Powr-Flite PF61EC-35	Upright	All	
Powr-Flite	<a href="http://www.powrflite.com">www.powrflite.com</a>	Powr-Flite PF61EC-50	Upright	All	
Powr-Flite	<a href="http://www.powrflite.com">www.powrflite.com</a>	Powr-Flite PF61VC-35	Upright	All	
Powr-Flite	<a href="http://www.powrflite.com">www.powrflite.com</a>	Powr-Flite PF61VC-50	Upright	All	
Prochem	<a href="http://www.prochem.com">www.prochem.com</a>	Prochem PV12	Upright	All	
ProTeam Inc.	<a href="http://www.pro-team.com">www.pro-team.com</a>	ProTeam Quarter-Vac, ProTeam ProVac	Back Pack	Low Pile	
ProTeam Inc.	<a href="http://proteamvac.com">proteamvac.com</a>	ProCare 15XP, use with inner bag T-103463 and standard outer filter	Upright	All	
ProTeam Inc.	<a href="http://www.pro-team.com">www.pro-team.com</a>	ProTeam Alpine	Back Pack	Low Pile	

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Manufacturer	Web link	Model	Type	Carpet Style <sup>1</sup>	Preferred Source or State Contract and Contract Information <sup>2</sup>
ProTeam Inc.	<a href="http://www.pro-team.com">www.pro-team.com</a>	ProTeam Coach Vac	Back Pack	Low Pile	
ProTeam Inc.	<a href="http://www.pro-team.com">www.pro-team.com</a>	ProTeam Everest	Back Pack	Low Pile	
ProTeam Inc.	<a href="http://www.pro-team.com">www.pro-team.com</a>	ProTeam LineVacer BPV100-H, use with micro lined inner bag #100291, HEPA outer filter	Back Pack	Low Pile	
ProTeam Inc.	<a href="http://proteamvac.com">proteamvac.com</a>	ProTeam ProCare 15, use with inner bag T-103463 and standard outer filter	Upright	All	
ProTeam Inc.	<a href="http://www.pro-team.com">www.pro-team.com</a>	ProTeam ProClean Canister	Canister	All	
ProTeam Inc.	<a href="http://pro-team.com">pro-team.com</a>	ProTeam ProForce 1500, use with inner bag type 103463 and standard outer filter	Upright	All	
ProTeam Inc.	<a href="http://pro-team.com">pro-team.com</a>	ProTeam ProForce 1500XP, use with inner bag type 103463 and standard outer filter	Upright	All	
ProTeam Inc.	<a href="http://www.pro-team.com">www.pro-team.com</a>	ProTeam QuietPro, use with standard floor tool and Micro-lined inner bag	Back pack	Low Pile	
ProTeam Inc.	<a href="http://www.pro-team.com">www.pro-team.com</a>	ProTeam Sierra, use with Sweep 'n Groom powerhead and #103227 inner bag	Back Pack	All	

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ProTeam Inc.	<a href="http://www.pro-team.com">www.pro-team.com</a>	ProTeam Super Coach	Back Pack	Low Pile	
ProTeam Inc.	<a href="http://www.pro-team.com">www.pro-team.com</a>	ProTeam Mega Vac	Back Pack	Low Pile	
ProTeam Inc.	<a href="http://www.pro-team.com">www.pro-team.com</a>	ProTeam Tail Vac	Back Pack	Low Pile	
ProTeam Inc.	<a href="http://proteamvac.com">proteamvac.com</a>	ProTeam VX2000, Equipped with Eureka power nozzle, use with type 103738 Inner bag, Standard outer filter	Back pack	All	
Pullman Holt	<a href="http://pullmanholtcorp.com">pullmanholtcorp.com</a>	Pullman Holt U5, use with inner bag 103483 and standard outer filter	Upright	All	
Regina Home Care, LLC	<a href="http://www.reginavac.com">www.reginavac.com</a>	Regina 3100	Upright	All	
Rexair, Inc.	<a href="http://rainbowsystem.com">rainbowsystem.com</a>	Rainbow E-Series	Canister	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Feather Glide 085700, use with 'U' Inner Bag	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Featherlite #085530, use with MicroFresh High Filtration paper type D bag	Upright	All	

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Manufacturer	Web link	Model	Type	Carpet Style <sup>1</sup>	Preferred Source or State Contract and Contract Information <sup>2</sup>
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Featherlite #085540, use with MicroFresh High Filtration paper type D bag	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Featherlite #085560, use with MicroFresh High Filtration paper type D bag	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Featherlite #85500, use with MicroFresh High Filtration paper type D bag	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil MVP Swivel Glide, w/HEPA #86505, use with Microfresh High Filtration paper type U bag	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Platinum Force #091000, use with Micro Fresh type U inner bag	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Platinum Force M-091200, bagless	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Scorpion #088100, bagless	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Swivel Glide MVP, w/HEPA #086330, use with MicroFresh High Filtration paper Type U bag	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Swivel Glide MVP, w/HEPA #086335, use with MicroFresh High Filtration paper Type U bag	Upright	All	

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Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Swivel Glide MVP, w/HEPA #086345B, use with MicroFresh High Filtration paper Type U bag	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Swivel Glide MVP, w/HEPA #86325, use with MicroFresh High Filtration paper Type U bag	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Vision #086925W, bagless	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Vision #086935, bagless	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Vision #086935V, bagless	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Vision #86925, bagless	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Vision Lite, w/HEPA #88650, bagless	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Vision Lite, w/Micro-Fresh Filtration, Model 88600, bagless	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Vision with Sensor, Model 89890, bagless	Upright	All	

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Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Dirt Devil Vision with Sensor, Model 89900, bagless	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Royal Back Pack RY 4000	Back Pack	Low Pile	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Royal Commercial M-1030 with HEPA Type 'B' Paper Inner Bag:Denim Cloth Outer Bag	Upright	Low Pile	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Royal Commercial M1058 with HEPA Type 'B' Paper Inner Bag: Denim Cloth Outer Bag	Upright	Low Pile	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Royal M1038	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Royal M2028, use with T-B microFresh Inner bag, cloth outer bag	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Royal PowerCast RY9100 with Type 'U' Inner Bag	Upright	All	
Royal Appliance Mfg. Co.	<a href="http://www.dirtdevil.com">www.dirtdevil.com</a>	Royal PowerCastRY9000 with Type 'U' Inner Baf	Upright	All	
Sanitaire by Electrolux Home Care Products	<a href="http://www.sanitairecommercial.com">www.sanitairecommercial.com</a>	Sanitaire C 5712 Upright Commercial, use with type LS innner bag with HEPA outer filter	Upright	All	



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Sanitaire by Electrolux Home Care Products	<a href="http://www.sanitairecommercial.com">www.sanitairecommercial.com</a>	Sanitaire S 782 Upright Commercial, use with type SL paper inner bag , standard outer filter	Upright	All	
Sanitaire by Electrolux Home Care Products	<a href="http://www.sanitairecommercial.com">www.sanitairecommercial.com</a>	Sanitaire SC 412A Back Vac with t-BV-2 inner bag, standard outer filter	Upright	All	
Sanitaire by Electrolux Home Care Products	<a href="http://www.sanitairecommercial.com">www.sanitairecommercial.com</a>	Sanitaire SC 5713 Upright Commercial, use with type LS innner bag with HEPA outer filter	Upright	All	
Sanitaire by Electrolux Home Care Products	<a href="http://www.sanitairecommercial.com">www.sanitairecommercial.com</a>	Sanitaire SC 5815 Upright Commercial, use with type LS innner bag with HEPA outer filter	Upright	All	SC - Award 4513 - Grainger
Sanitaire by Electrolux Home Care Products	<a href="http://www.sanitairecommercial.com">www.sanitairecommercial.com</a>	Sanitaire SC 5845 bagless Upright Commercial	Upright	All	
Sanitaire by Electrolux Home Care Products	<a href="http://www.sanitairecommercial.com">www.sanitairecommercial.com</a>	Sanitaire SC 785 Upright Commercial, use with type SL paper inner bag , standard outer filter	Upright	All	SC - Award 4513 - Home Depot
Sanitaire by Electrolux Home Care Products	<a href="http://www.sanitairecommercial.com">www.sanitairecommercial.com</a>	Sanitaire SP 5816 Upright Commercial, use with type LS innner bag with HEPA outer filter	Upright	All	
Sanitaire by Electrolux Home Care Products	<a href="http://www.sanitairecommercial.com">www.sanitairecommercial.com</a>	Sanitaire TC 5815 Upright Commercial, use with type LS innner bag with HEPA outer filter	Upright	All	
SEBO America	<a href="http://www.sebo-vacuums.com">www.sebo-vacuums.com</a>	SEBO 370 Electronic	Upright	All	

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SEBO America	<a href="http://www.sebo-vacuums.com">www.sebo-vacuums.com</a>	SEBO Automatic X4	Upright	All	
SEBO America	<a href="http://www.sebo-vacuums.com">www.sebo-vacuums.com</a>	SEBO Automatic X5	Upright	All	
SEBO America	<a href="http://www.sebo-vacuums.com">www.sebo-vacuums.com</a>	SEBO G1	Upright	All	
SEBO America	<a href="http://www.sebo-vacuums.com">www.sebo-vacuums.com</a>	SEBO G2	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	F3500-Simplicity Freedom Premium wHEPA	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	RC-1500P Riccar MidSize Canister, when used with approved electric floor brush RPB-100	Canister	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	RC-1500S Riccar MidSize Canister, when used with approved electric floor brush RPB-100	Canister	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	RC-1700S Riccar Full Size Canister, when used with approved electric floor brush RPB-100	Canister	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar 4810	Upright	All	

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Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar 4900	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar 8900 Household	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar 8905 Household w/tools	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar 8920 Commercial	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar 8925 Commercial w/tools	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar 8955 Household Premium w/tools	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar R100-Preferred Upright	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar R200-Preferred Upright	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar R300C-Preferred Commercial Upright	Upright	All	

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Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar R300-Preferred Upright	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar Raidance w Tandem Air System,	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar RC1700P with C19-6 EcoPure HEPA Inner Bag	Canister	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar RSL2	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar RSL2C	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	Riccar XCP2, Riccar XCP Plus	Upright	All	
Tacony Corporation	<a href="http://www.riccar.com">www.riccar.com</a>	RSL3-Riccar Supralite Premium w/HEPA	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	SF1 Simplicity Freedom Lightweight	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity 6550	Upright	All	

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Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity 6870	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity 6600 Household Upright	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity 6670 Household Upright w/tools	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity 6900 Premium Upright	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity 6970 Premium Upright w/tools	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity 7700 Household	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity 7750 Household w/tools	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity 7850 Household Premium w/tools	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity 7900 Commercial	Upright	All	

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Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity 7950 Commercial w/tools	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity F3300	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity F3400	Upright	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity S18L MidSize Canister, use with approved electric floor brush SPB-200	Canister	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity S24L MidSize Canister, use with approved electric floor brush SPB-200	Canister	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity S30L Full Size Canister, use with approved electric floor brush SPB-200	Canister	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity S36L Full Size Canister, use with approved electric floor brush SPB-200	Canister	All	
Tacony Corporation	<a href="http://www.simplicityvac.com">www.simplicityvac.com</a>	Simplicity Synergy w/Tandem Air System	Upright	All	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Scout 37B	Walk Behind	Low Pile	

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Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant 3120, 12 inch #614306, use with 101505 bag	Upright	Low Pile	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant 3120, 15 inch #614217, use with 101505 bag	Upright	Low Pile	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant 3120, 18 inch #614218, use with 101505 bag	Upright	Low Pile	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant 3000	Back Pack	Low Pile	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant 3050	Back Pack	Low Pile	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant 3110 Single Motor, 12 inch # 614215, use with 101505 paper bag	Upright	All	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant 3110 Single Motor, 15 inch # 614216, use with 101505 paper bag	Upright	All	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant 3200	Upright	All	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant 3220	Upright	All	

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Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant 3400, CV-1200	Canister	Low Pile	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant 3620	Walk Behind	Low Pile	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant 3640	Walk Behind	Low Pile	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant Power Sweeper 6100	Rider Sweeper	Low Pile	
Tennant Co.	<a href="http://www.tennantco.com">www.tennantco.com</a>	Tennant S8	Walk Behind	Low Pile	
The Aramark Corporation	<a href="http://www.aramark.com">www.aramark.com</a>	Aramark PV500	Back Pack	Low Pile	
The Aramark Corporation	<a href="http://www.aramark.com">www.aramark.com</a>	Aramark SM-12G	Upright	Low Pile	
The Aramark Corporation	<a href="http://www.aramark.com">www.aramark.com</a>	Aramark SM-18G	Upright	Low Pile	
The Aramark Corporation	<a href="http://www.aramark.com">www.aramark.com</a>	Aramark SM-18GDC	Upright	Low Pile	



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The Aramark Corporation	<a href="http://www.aramark.com">www.aramark.com</a>	Aramark SME Power Plus	Upright	All	
The Aramark Corporation	<a href="http://www.aramark.com">www.aramark.com</a>	Aramark Wide Area Tri Vac	Upright	All	
Tornado Industries	<a href="http://www.tornadovac.com">www.tornadovac.com</a>	Tornado CV30/1, use with paper inner bag 6.904-293 or fleece inner bag, HEPA outer filter	Upright	All	
Tornado Industries	<a href="http://www.tornadovac.com">www.tornadovac.com</a>	Tornado Karcher CW100	Upright	All	
Tornado Industries	<a href="http://www.tornadovac.com">www.tornadovac.com</a>	Tornado Karcher CW50	Upright	All	
Triple S	<a href="http://www.triple-s.com">www.triple-s.com</a>	SSS ProTwin Deluxe 14	Upright	All	
Triple S	<a href="http://www.triple-s.com">www.triple-s.com</a>	SSS ProTwin Deluxe 18	Upright	All	
Triple S	<a href="http://www.triple-s.com">www.triple-s.com</a>	SSS, ProSense II, use with 49002 paper bag	Upright	All	
Triple S	<a href="http://www.triple-s.com">www.triple-s.com</a>	SSS, Speedster 1000	Back pack	Low Pile	

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Triple S	<a href="http://www.triple-s.com">www.triple-s.com</a>	SSS, Speedster 600	Back pack	Low Pile	
Unisource Worldwide, Inc.	<a href="http://www.unisourcelink.com">www.unisourcelink.com</a>	Allstar Javelin JAV XP-12, use with OEM bag	Upright	All	
Unisource Worldwide, Inc.	<a href="http://www.unisourcelink.com">www.unisourcelink.com</a>	Allstar Javelin JAV-280, use with 280 bag, paper inner, cloth outer, Filter type: HEPA	Wide Area Vacuum	All	
Unisource Worldwide, Inc.	<a href="http://www.unisourcelink.com">www.unisourcelink.com</a>	Allstar Quarter Vac, use with OEM bag	Back Pack	Low Pile	
Unisource Worldwide, Inc.	<a href="http://www.unisourcelink.com">www.unisourcelink.com</a>	Allstar Super Coach Vac, use with OEM bag	Back Pack	Low Pile	
Unisource Worldwide, Inc.	<a href="http://www.unisourcelink.com">www.unisourcelink.com</a>	Allstar Tail Vac, use with OEM bag	Back Pack	Low Pile	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	VacPac VP-6	Back Pack	Low Pile	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor Chariot i-Vacuum, Model CV28 Ride-On, use with cloth outer bag no. 1409115 and paper inner bag no. 140168	Wide Area Vacuum	All	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor Flexamatic FM-12, use with Standard OEM Bag #7029WI, Motor filter # 7012 and Exhaust filter 7015WI	Upright	All	

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Manufacturer	Web link	Model	Type	Carpet Style <sup>1</sup>	Preferred Source or State Contract and Contract Information <sup>2</sup>
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor Flexamatic FM-15, use with standard OEM bag #7029WI, Motor filter #7012 and Exhaust filter #7015WI	Upright	All	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor Sensor SRS12	Upright	All	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor Sensor SRS15	Upright	All	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor Sensor SRXP12	Upright	All	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor Sensor SRXP15	Upright	All	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor Sensor SRXP18	Upright	All	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor VacPac VP-10	Back Pack	Low Pile	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor Versamatic Plus, VSP-14	Upright	All	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor Versamatic Plus, VSP-18	Upright	All	

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Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor Versamatic VS14	Upright	All	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor Versamatic VS18	Upright	All	
Windsor Industries	<a href="http://www.windsorind.com">www.windsorind.com</a>	Windsor WAV	Wide Area Vacuum	Low Pile	

NOTE: This list includes Green Label certified vacuum cleaners as publically listed on July 24, 2006. Additional certified products may be listed on the Carpet and Rug Institute website - [http://www.carpet-rug.org/drill\\_down\\_2.cfm?page=8&sub=16&display=1&Vacuum\\_Type=0&offset=0&requesttimeout=350](http://www.carpet-rug.org/drill_down_2.cfm?page=8&sub=16&display=1&Vacuum_Type=0&offset=0&requesttimeout=350).

<sup>1</sup>Carpet Style

<sup>2</sup>Preferred Source

For additional information about approved vacuum cleaners see [www.carpet-rug.org/drill\\_down\\_2.cfm?page=8&sub=9](http://www.carpet-rug.org/drill_down_2.cfm?page=8&sub=9).

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## Hand Cleaners and Soaps

# Green Select® Hand Soaps

Help support a clean environment with **Green Select Hand Soaps**



**Help protect the environment  
and provide a quality handwash**

HILLYARD Green Select Hand Soaps offer rich, premium lather and are available in a variety of dispensing formats to meet most any need.

- **Environmentally responsible packaging and formulas**
- **Biodegradable formulas — effective, yet mild**

Distributed by:

**HILLYARD**  
THE CLEANING RESOURCE®

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HIL0124803



HIL0124903



HIL0124703

**\*These products meet Green Seal's<sup>1</sup> environmental standards** for institutional hand cleaners based on their reduced human and aquatic toxicity and reduced smog production potential.

Stock No.	Size	Description
HIL0124803	1200 mL	HILLYARD® Green Select® Foam Soap
HIL0124703	1250 mL	HILLYARD Green Select Foam Soap
HIL0124903	1500 mL	HILLYARD Green Select Foam Soap

1 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.

Distributed by:



Distributed by: HILLYARD  
 302 No. Fourth Street  
 St. Joseph, MO 64502  
 Phone: 1-800/365-1555  
<http://www.hillyard.com>

**HIL0124703, HIL0124803, HIL0124903**

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT IDENTIFICATION AND COMPANY IDENTIFICATION:

Product Name: **GREEN SELECT® FOAM SOAP**  
HILLYARD INDUSTRIES, INC.  
Company Name & Address: 302 NORTH FOURTH STREET  
ST. JOSEPH, MO 64501  
<http://www.hillyard.com>  
Emergency Phone: **1-800-424-9300 CHEMTREC**  
Non-Emergency Phone: 1-816-233-1321, Ext. 8285  
MSDS Request Phone: 1-816-233-1321, Ext. 8287

### 2. INFORMATION ON INGREDIENTS:

HAZARDOUS INGREDIENTS	CAS NUMBER	OSHA PEL	ACGIH TLV	% RANGE
None				

Other ingredient(s) with notification requirements:	CAS NUMBER	List
None		

### 3. HAZARDS IDENTIFICATION:

#### **EMERGENCY OVERVIEW**

When used according to instructions, the product applicable to this MSDS is safe and presents no immediate or long-term health hazard. However, abnormal entry routes, such as gross ingestion, may require immediate medical attention.

#### **Potential Health Effects:**

HMIS: Health 1 Flammability 0 Reactivity 0 Personal Protection None

Eye Contact: May cause eye irritation.  
Skin Contact: No irritation or reaction expected.  
Inhalation: Not applicable.  
Ingestion: May cause upset stomach, nausea (Abnormal entry route).  
Carcinogenicity: Not listed as a carcinogen by NTP, IARC, OSHA or ACGIH.

### 4. FIRST AID MEASURES:

Eye Contact: Do not rub eyes. Flush eyes thoroughly with water for 15 minutes. If condition worsens or irritation persists, contact physician.  
Skin Contact: Not applicable.  
Inhalation: Not applicable.  
Ingestion: Do not induce vomiting. Contact a physician or Poison Control Center.

### 5. FIRE FIGHTING MEASURES:

NFPA: Health 0 Fire 0 Reactivity 0

Flashpoint °F/°C (PMCC method): Not applicable.  
Unusual Fire and Explosion Hazards: None known.  
Special Fire Fighting Procedures: None known.



Extinguishing Media:  Water Fog  Alcohol Foam  CO<sub>2</sub>  Dry Chemical  Other

**6. ACCIDENTAL RELEASE MEASURES:**

No special requirements. Water clean up and rinse. CAUTION – WILL CAUSE SLIPPERY SURFACES.

**7. HANDLING AND STORAGE:**

Store at normal room temperature away from reach of small children. Keep containers sealed. Use older containers first. Avoid freezing conditions.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION:**

Eye Protection:	None required under normal conditions.
Skin Protection:	None required under normal conditions.
Respiratory Protection:	None required under normal conditions.
Ventilation:	None required under normal conditions.
Protective Equipment or Clothing:	None required under normal conditions.

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

Appearance and Odor	Colorless to yellow liquid, fragrance free
pH (undiluted):	4.8 - 7.5
VOC , %:	<0.5%

**10. STABILITY AND REACTIVITY:**

Stable/Non reactive product.

**11. TOXICOLOGICAL INFORMATION:**

No acute or chronic toxic effects expected when used according to directions.

**12. ECOLOGICAL CONSIDERATIONS:**

No ecological or special considerations when used according to directions. Not considered environmentally harmful from normal dilution, expected usage and typical drainage to sewers, septic systems and treatment plants.

**13. DISPOSAL CONSIDERATIONS:**

No special considerations when disposed according to local, state and Federal regulations.

**14. TRANSPORT INFORMATION:**

Not classified as a hazardous material.

**15. REGULATORY AND OTHER INFORMATION:**

TSCA: All ingredients are listed or exempt per reference 15 USC 2602 (2)(B)(iv).  
Complies with current FDA regulations for cosmetic and/or over-the-counter drug products.

Notice: The information herein is based on data considered to be accurate as of the date of preparation of this material safety data sheet. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the foregoing data and safety information. The user assumes all liability for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.



# *Environmental Certification*

*Presented to*

**HILLYARD INDUSTRIES, INC.**

Green Seal, Inc. certifies that the following product complies with or exceeds Green Seal's Environmental Standard for Hand Cleaners and Hand Soaps Used for Industrial and Institutional Purposes (GS-41) and is licensed to use the Green Seal Certification Mark:

Green Select Foam Soap

*(Specific pack sizes listed in certification letter)*

Certified this 18th day of January, 2007.

A handwritten signature in blue ink, appearing to read "Mark T. Petruzzi", is written over a horizontal line.

Mark T. Petruzzi, Vice President of Certification

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Paper Products: Paper Towels  
and Toilet Tissue

## **PAPER PRODUCTS**

While our organization recognizes that the Paper Towel, Toilet Tissue and Facial Tissue categories are not presently mandated through the OGS Guidelines and Specifications for the Procurement and use of Environmentally Sensitive Cleaning and Maintenance Products, we have elected to exercise our own environmental stewardship by using paper products that are Independently third party certified. In addition, our organization is committed to only using paper products that are made of 100% recycled fiber, are processed chlorine free, have no added inks, dyes, fragrances or pigments, are quality manufactured and performance tested, and meets or exceeds EPA guidelines for post-consumer wastepaper.

# HILLYARD



THE CLEANING RESOURCE®



## Paper Products and Dispensing Systems

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Green Select™,  
Green Seal Certified  
and Premium  
Towels and Tissue

Hillyard is your source for environmentally preferable quality paper products and dispensing systems. You can choose from our Green Select™ or Green Select™ Green Seal Certified towel and tissue products.

Hillyard Green Select™

Green Seal certified

towel and tissue products

are certified by

Green Seal, Inc.

in Washington, DC

Hillyard Green Select™ Green Seal certified towel and tissue products are made from 100% recycled wastepaper and are certified by Green Seal, Inc. in Washington, DC. The “Green Seal” means our products meet the Green Seal environmental standards for paper towels and tissue, making the Hillyard Green Select™ Green Seal certified products among the most environmentally preferable towel and tissue lines available in the away-from-home market.

## Green Seal Standards for Paper Towels

- ▶ 100% Recycled (recovered after papermaking process)
- ▶ Minimum 40% post-consumer wastepaper content (EPA guidelines)
- ▶ Wastepaper is not de-inked using solvents containing chlorine or any other chemicals or compounds harmful to the environment.
- ▶ Wastepaper is not bleached using chlorine or any of its derivatives such as hypochlorite and chlorine dioxide.
- ▶ Paper towels do not contain any added pigments, inks, dyes or fragrances.
- ▶ Product is made in accordance with reasonable industry practice with respect to holes, tears, wrinkles, cleanliness, foreign materials or dirt. Product must dispense properly from the container (dispenser) or roll.
- ▶ The cores in the roll towels are made from 100% recycled materials.
- ▶ Packaging materials cannot contain lead, cadmium, mercury and hexavalent chromium in excess of 100 parts per million (above trace levels).



## Green Seal Standards for Bath & Facial Tissue

- ▶ 100% Recycled (recovered after papermaking process)
- ▶ Minimum 20% post-consumer wastepaper content in bath tissue; 10% in facial tissue (EPA guidelines)
- ▶ Wastepaper is not de-inked using solvents containing chlorine or any other chemicals or compounds harmful to the environment.
- ▶ Wastepaper is not bleached using chlorine or any of its derivatives such as hypochlorite and chlorine dioxide.
- ▶ Bath and facial tissue does not contain any added pigments, inks, dyes or fragrances.
- ▶ Bath tissue contains a minimum of 40 square feet of product per roll; facial tissue contains a minimum of 70 square feet of product per box (inner packaging).
- ▶ Product is made in accordance with reasonable industry practice with respect to holes, tears, wrinkles, cleanliness, foreign materials or dirt. Product dispenses properly from the box or fixture (dispenser).
- ▶ The cores in the bath tissue and the box for the facial tissue are made from 100% recycled materials.
- ▶ Packaging does not contain inks, dyes, pigments, stabilizers or any additives to which any lead, cadmium, mercury and hexavalent chromium has been intentionally introduced.
- ▶ Packaging materials cannot contain lead, cadmium, mercury and hexavalent chromium in excess of 100 parts per million (above trace levels).



# Hillyard Green Select™ Paper Products



The Hillyard Green Select™ Green Seal certified products are among the most environmentally preferable towel and tissue lines available in the away-from-home market.

## HILLYARD GREEN SELECT™ GREEN SEAL TOWELS

Hillyard Green Select™ Green Seal certified roll and folded towels are 100% recycled and made entirely from recovered fibers. Natural towels contain up to 82% post-consumer waste; natural white towels contain up to 73% post-consumer waste; and white towels contain up to 49% post-consumer waste. Folded towels are available in multifold and C-fold configurations.

## HILLYARD GREEN SELECT™ GREEN SEAL TISSUE

Embossed for softness, 100% recycled Hillyard Green Select™ Green Seal certified bath tissue contains up to 49% post-consumer waste, which exceeds EPA guidelines.

## HILLYARD GREEN SELECT™ GREEN SEAL SPECIALTY PRODUCTS

Heavily embossed Hillyard Green Select™ Green Seal certified household paper toweling provides the softness and absorbency of household toweling and has the wet strength needed for use in business and industry. Household toweling contains up to 49% post-consumer waste.

Hillyard Green Select™ Green Seal certified facial tissue offers the softness and absorbency of household tissue with attractive packaging and meets EPA guidelines with 10% post-consumer waste.



Hillyard Green Select™  
Green Seal Certified  
Controlled-Use Tissue



Hillyard Green Select™  
Green Seal Certified  
Kitchen Roll Towels



Hillyard Green Select™ Green Seal  
Certified Facial Tissue



Hillyard Green Select™  
Green Seal Certified  
Universal Tissue



Hillyard Green Select™  
Green Seal Certified Roll Towels



Hillyard Green Select™ Green Seal  
Certified Folded Towels

Combine Hillyard Green Select™ Green Seal certified controlled roll towels and tissue products with Hillyard controlled roll dispensers.

## Green Seal, Inc.

Green Seal is an independent, non-profit organization, located in Washington, DC, 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 or 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. ([www.green seal.org](http://www.green seal.org))



## Going Green

In the early 1990s, going **green** simply meant buying paper and other products that were made of recycled materials or could be reclaimed from the waste stream for some additional use. Today, **green** takes environmental stewardship to a whole new level. It is an approach to purchasing products and services that creates a healthy living and working environment. As a result, property managers and governments (federal, state, county and municipal) are seeking to incorporate environmental considerations in their buying decisions. Simply stated, they want a healthier environment for their tenants, citizens, and employees. Many commercial buildings and properties, lodging and hotel operations, and government facilities have mandates or policies to be green.

Hillyard Green Select™ Green Seal certified products can help your customers in achieving green status. A complete line of towel and tissue products is available including roll and folded towels, bath and facial tissue. The Hillyard Green Select™ Green Seal certified roll and folded towels are available in both natural and a unique natural white paper grade.



Hillyard Green Select™

towels and tissue are

among the most

environmentally

preferable products

available in the

away-from-home market







Hillyard Green Select™ is made from 100% recycled wastepaper and meets the demand for recycled products, while continuing to meet the customer's need for softness and quality.

## HILLYARD GREEN SELECT™: AN ENVIRONMENTAL NECESSITY

Recycling has become an environmental necessity, and that makes Hillyard Green Select™ an environmental necessity, too. It's a complete line of 100% recycled towel and tissue products designed for the environmentally conscious customer.

## MEETS EPA GUIDELINES

All Hillyard Green Select™ products meet or exceed EPA guidelines for post-consumer waste content. That means they satisfy procurement guidelines for government-funded organizations which are enforced by state and federal laws.

## SAVES MONEY, RESOURCES

Hillyard Green Select™ controlled roll towels combined with Hillyard controlled-use dispensers help conserve resources by reducing waste at its source.

## 100% RECYCLED: A SIGN OF THE TIMES

Customers can purchase Hillyard Green Select™ with confidence, knowing they support the recycling movement, while helping to create a cleaner environment. Image-conscious customers will appreciate that every Hillyard Green Select™ product is clearly labeled "100% Recycled."

## THE HILLYARD ADVANTAGE

Through a perfect blend of pre- and post-consumer wastepaper, Hillyard Green Select™ gives you recycled towel and tissue products without sacrificing quality or performance. That's the Hillyard advantage.

## HILLYARD GREEN SELECT™ ROLL TOWELS

Hillyard Green Select™ roll towels are 100% recycled and made entirely from recovered fibers. They contain a minimum of 40% post-consumer waste, which meets EPA guidelines. Available in white and natural.



Combine Hillyard Green Select™ roll towels with Hillyard controlled roll dispensers.

## HILLYARD GREEN SELECT™ TISSUE

Embossed for softness, 100% recycled Hillyard Green Select™ tissues contain a minimum of 20% post-consumer wastepaper, which meets EPA guidelines.



Every Hillyard Green Select™ tissue meets EPA guidelines with a minimum of 20% post-consumer waste.

## HILLYARD GREEN SELECT™ FOLDED TOWELS

Hillyard Green Select™ 100% recycled singlefold, multifold and C-fold towels available in white and natural.

White and natural Hillyard Green Select™ folded towels contain a minimum of 40% post-consumer waste to meet EPA guidelines.



Hillyard dispensers provide an elegant, coordinated washroom appearance.

## ELECTRONIC TOUCH FREE ROLL TOWEL DISPENSERS

The electronic touch free dispenser is the first roll towel system to offer totally touch free dispensing. The towel is stored fully protected inside the dispenser until you request service by passing your hand or arm near the sensor. By simply waving your hand in front of the sensor, 8", 11", 16.5" or 22" of toweling is dispensed. Wave again for another towel. It's that simple.



#42501

To order replacement battery packs (part # 200-145), contact Cargo Battery, 800-727-4100. Universal battery adapters (part # SA-028) are also available from Cargo Battery.

## MECHANICAL HANDS-FREE DISPENSERS

The Mechanical Hands-Free Dispenser delivers reliable hands-free dispensing without any levers, buttons or cranks to touch. The hands-free design helps to prevent cross-contamination and reduces contact with potentially dangerous bacteria. This makes the Mechanical Hands-Free dispenser ideal for high-traffic restrooms and food preparation environments where maintaining required sanitary conditions is essential.



#42507

## LEVER & BUTTON LEVER ROLL TOWEL DISPENSERS

Fully loaded dispensers have twice the capacity of the average folded towel dispenser.

These dispensers deliver a pre-measured 10 3/4 inch towel to discourage paper waste and give you maximum cost control.



#42503



#42521

## UNIVERSAL ROLL TOWEL DISPENSERS

The universal roll towel dispenser accommodates most universal roll towels and provides *at a glance* maintenance. The push dispensing mechanism makes the dispenser easy to operate.



#42515

## CENTERPULL DISPENSERS

Our CenterPull dispensers help reduce cross-contamination, since users touch only the toweling they take, making them perfect for a variety of applications. This CenterPull dispenser is noiseless, has no moving parts and has a hinged door for easy loading and unloading.



#42505

## FOLDED TOWEL DISPENSERS

The folded towel dispenser holds two packs of multifold and c-fold towels. It features a side-opening door for easy accessibility and maintenance. The translucent styling allows service staff to see *at a glance* when it's time to refill.



#42517

## 9" TISSUE DISPENSERS

Our 9" tissue dispenser holds one roll of toilet tissue. This dispenser fits where larger dispensers can't, but is still ideal for heavy traffic washroom usage.



#42519

## 2-ROLL TISSUE DISPENSERS

The two-roll capacity ensures a constant supply of tissue, making it ideal for high-end installations. Each design protects the reserve roll while the other roll is in use.



#42509




#42513

## 4-ROLL TISSUE DISPENSERS

The 4-roll tissue system provides a steady tissue supply with minimal maintenance for maximum cost savings in high-traffic washrooms. This dispenser's four-roll capacity minimizes the chance of washroom run-out, helping control washroom maintenance costs.



#42511

 This mark indicates that the dispenser is ADA Title III compliant. Roll towel dispensers require less than 5 lbs. of force to effortlessly dispense the towel as set forth in the ADA Accessibility Guidelines. On all ADA compliant dispensers, controls and operating mechanisms are operable with one hand and do not require tight grasping, pinching or twisting of the wrist.

# Hillyard Premium Products

Hillyard premium roll towels are designed for the most discriminating customer.

## HILLYARD PREMIUM ROLL TOWELS

Hillyard premium roll towels provide maximum softness, strength and absorbency. These towels are embossed and offer exceptional brightness.



## Towel & Tissue Specifications

### Roll Towels

No.	Name	Color	Dispenser No.	Roll Width	Linear Ft. Per Roll	Rolls Per Case	Feet Per Case	Cases Per Unit	Cases Per Even Layer	Avg. Case Cube	Approx. Case Wt.
<b>Controlled Roll Towels</b>											
✓ 10100	Hillyard Green Select™ Green Seal	Natural	42501, 42503, 42507, 42521	8	800	6	4,800	55	5	1.8	27 lbs
✓ 10110	Hillyard Green Select™ Green Seal	Natural White	42501, 42503, 42507, 42521	8	800	6	4,800	55	5	1.8	27 lbs
22000	Hillyard Green Select™	White	42501, 42503, 42507, 42521	8	800	6	4,800	55	5	1.8	28 lbs
<b>Premium Controlled Roll Towels</b>											
38001	Hillyard Premium	White	42501, 42503, 42507, 42521	8	450	12	5,400	30	5	3.6	38 lbs
<b>Universal Roll Towels</b>											
✓ 10120	Hillyard Green Select™ Green Seal	Natural	42515	8	800	6	4,800	55	5	1.8	27 lbs
✓ 10125	Hillyard Green Select™ Green Seal	Natural White	42515	8	800	6	4,800	55	5	1.8	27 lbs
22004	Hillyard Green Select™	White	42515	8	350	12	4,200	42	7	2.1	24 lbs
22006	Hillyard Green Select™	White	42515	8	800	6	4,800	55	5	1.8	28 lbs
22008	Hillyard Green Select™	Natural	42515	8	350	12	4,200	42	7	2.4	24 lbs
<b>CenterPull Roll Towels</b>											
✓ 10115	Hillyard Green Select™ Green Seal	White, 2-ply	42505	7 <sup>3</sup> / <sub>4</sub> x 12	600	6	3,600	55	5	1.9	23 lbs
22002	Hillyard Green Select™ Airlaid	White, 1-Ply	42505	8 x 12	900	6	5,400	50	5	2.1	19 lbs

### Folded Towels

No.	Name	Color	Dispenser Number	Sheet Size (W" x L")	Towels Per Pkg.	Pkgs. Per Case	Towels Per Case	Cases Per Unit	Cs. Per Even Layer	Avg. Case Cube	Approx. Case Wt.
<b>Singlefold</b>											
22010	Hillyard Green Select™	Natural	—	9 x 10	268	15	4,020	50	5	2.2	23 lbs
<b>Multifold</b>											
✓ 10130	Hillyard Green Select™ Green Seal	Natural White	42517	9 <sup>1</sup> / <sub>8</sub> x 9 <sup>1</sup> / <sub>2</sub>	200	20	4,000	50	5	2.4	22 lbs
✓ 10135	Hillyard Green Select™ Green Seal	Natural	42517	9 <sup>1</sup> / <sub>8</sub> x 9 <sup>1</sup> / <sub>2</sub>	200	20	4,000	50	5	2.4	22 lbs
22012	Hillyard Green Select™	White	42517	9 <sup>1</sup> / <sub>8</sub> x 9 <sup>1</sup> / <sub>2</sub>	200	20	4,000	50	5	2.4	22 lbs
<b>C-Fold</b>											
✓ 10140	Hillyard Green Select™ Green Seal	Natural White	42517	10 <sup>1</sup> / <sub>4</sub> x 13	150	16	2,400	54	6	2.2	20 lbs
22014	Hillyard Green Select™	White	42517	10 <sup>1</sup> / <sub>4</sub> x 13	150	16	2,400	54	6	2.2	20 lbs

### Tissue

No.	Name	Ply	Dispenser Number	Sheet Size (W" x L")	Sheets Per Roll	Rolls Per Case	Sheets (Ft.) Per Case	Cases Per Unit	Cs. Per Even Layer	Avg. Case Cube	Approx. Case Wt.
<b>Controlled-Use Tissue</b>											
✓ 10155	Hillyard Green Select™ Green Seal	Single	42509, 42511	3 <sup>7</sup> / <sub>8</sub> x 4	1,232	48	59,136	36	6	2.7	26 lbs
✓ 10160	Hillyard Green Select™ Green Seal	Double	42509, 42511	3 <sup>7</sup> / <sub>8</sub> x 4	616	48	29,568	36	6	2.7	23 lbs
<b>Universal Tissue</b>											
✓ 10165	Hillyard Green Select™ Green Seal	Double	42513	4 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>4</sub>	500	96	48,000	25	5	5.1	39 lbs
22016	Hillyard Green Select™	Double	42513	4 <sup>3</sup> / <sub>8</sub> x 4 <sup>1</sup> / <sub>2</sub>	500	96	48,000	25	5	5.2	47 lbs
22018	Hillyard Green Select™ Jumbo Roll	Double	42519	3 <sup>7</sup> / <sub>8</sub> " x 1,000"	—	12	(12,000)	48	6	2.4	25 lbs

### Specialty Products

No.	Name	Ply	Sheet Size (W" x L")	Sheets Per Roll (Pkg.)	Rolls (Pkgs.) Per Case	Sheets Per Case	Cases Per Unit	Cs. Per Even Layer	Avg. Case Cube	Approx. Case Wt.	
<b>Facial Tissue</b>											
✓ 10145	Hillyard Green Select™ Green Seal Facial	Double	8 <sup>3</sup> / <sub>4</sub> x 8	(150)	(30)	4,500	54	6	1.8	19 lbs	
<b>Kitchen Roll Towels</b>											
✓ 10150	Hillyard Green Select™ Green Seal Paper	Double	11 x 9	90	30	2,700	24	6	5.2	20 lbs	

✓ Denotes Green Seal® Certified Products

# Dispenser Specifications

## Controlled-Use Dispensers

No.	Name	Color	Dispenser Size (W" x H" x D")	Dispenser Wt. Each	Case Size (W" x H" x D")	Case Weight Each	Case Cube	Cases/Unit
Roll Towel Dispensers								
42501	Electronic Touch Free	Black Translucent	12 x 15 <sup>7</sup> / <sub>8</sub> x 10 <sup>3</sup> / <sub>8</sub>	8.1 lbs	16 <sup>3</sup> / <sub>8</sub> x 12 <sup>5</sup> / <sub>8</sub> x 12 <sup>3</sup> / <sub>8</sub>	10.0 lbs	1.5	48
42503	Lever	Black Translucent	11 <sup>1</sup> / <sub>2</sub> x 15 <sup>1</sup> / <sub>8</sub> x 10 <sup>1</sup> / <sub>2</sub>	7.2 lbs	11 <sup>7</sup> / <sub>8</sub> x 16 x 11 <sup>1</sup> / <sub>4</sub>	9.0 lbs	1.6	40
42521	Button-Lever	Black Translucent	11 <sup>1</sup> / <sub>2</sub> x 15 <sup>1</sup> / <sub>8</sub> x 10 <sup>1</sup> / <sub>2</sub>	7.4 lbs	11 <sup>7</sup> / <sub>8</sub> x 16 x 11 <sup>1</sup> / <sub>4</sub>	9.0 lbs	1.6	40
42505	CenterPull	Black Translucent	9 <sup>3</sup> / <sub>4</sub> x 13 <sup>1</sup> / <sub>2</sub> x 9 <sup>1</sup> / <sub>2</sub>	2.2 lbs	9 <sup>13</sup> / <sub>16</sub> x 13 <sup>3</sup> / <sub>8</sub> x 9 <sup>7</sup> / <sub>16</sub>	3.0 lbs	0.8	153
42507	Mechanical Hands-Free	Black Translucent	12 <sup>1</sup> / <sub>4</sub> x 15 <sup>3</sup> / <sub>4</sub> x 9 <sup>1</sup> / <sub>4</sub>	6.5 lbs	13 <sup>1</sup> / <sub>8</sub> x 16 <sup>1</sup> / <sub>8</sub> x 10	8.0 lbs	1.3	81

## Tissue Dispensers

No.	Name	Color	Dispenser Size (W" x H" x D")	Dispenser Wt. Each	Case Size (W" x H" x D")	Case Weight Each	Case Cube	Cases/Unit
42509	2-Roll Side-by-Side	Black Translucent	10 <sup>5</sup> / <sub>8</sub> x 7 <sup>1</sup> / <sub>4</sub> x 5 <sup>1</sup> / <sub>2</sub>	1.95 lbs	11 <sup>3</sup> / <sub>16</sub> x 7 <sup>1</sup> / <sub>2</sub> x 5 <sup>5</sup> / <sub>8</sub>	3.0 lbs	.27	140
42511	4-Roll	Black Translucent	13 x 14 <sup>5</sup> / <sub>8</sub> x 6	3.6 lbs	13 <sup>1</sup> / <sub>2</sub> x 15 <sup>3</sup> / <sub>8</sub> x 6 <sup>3</sup> / <sub>8</sub>	5.0 lbs	0.7	60

## Universal Dispensers

No.	Name	Color	Dispenser Size (W" x H" x D")	Dispenser Wt. Each	Case Size (W" x H" x D")	Case Weight Each	Case Cube	Cases/Unit
Tissue Dispensers								
42513	2-Roll	Black Translucent	6 <sup>5</sup> / <sub>8</sub> x 13 <sup>1</sup> / <sub>8</sub> x 6 <sup>1</sup> / <sub>8</sub>	2.2 lbs	6 <sup>7</sup> / <sub>8</sub> x 13 <sup>5</sup> / <sub>8</sub> x 6 <sup>5</sup> / <sub>8</sub>	3.0 lbs	0.4	105
42519	9" Jumbo Tissue Roll	Black Translucent	9 <sup>5</sup> / <sub>8</sub> x 11 <sup>1</sup> / <sub>8</sub> x 5 <sup>1</sup> / <sub>4</sub>	1.75 lbs	10 <sup>7</sup> / <sub>8</sub> x 12 x 6	3.0 lbs	0.32	84
Roll Towel Dispensers								
42515	Roll Towel	Black Translucent	10 <sup>5</sup> / <sub>8</sub> x 15 <sup>3</sup> / <sub>4</sub> x 8 <sup>3</sup> / <sub>4</sub>	6.7 lbs	18 <sup>1</sup> / <sub>8</sub> x 10 <sup>15</sup> / <sub>16</sub> x 10 <sup>1</sup> / <sub>4</sub>	8.0 lbs	1.2	72
Folded Towel Dispensers								
42517	Multi/C-Fold	Black Translucent	12 <sup>1</sup> / <sub>4</sub> x 16 <sup>3</sup> / <sub>4</sub> x 5	3.3 lbs	13 <sup>1</sup> / <sub>2</sub> x 17 <sup>1</sup> / <sub>4</sub> x 5 <sup>1</sup> / <sub>2</sub>	5.0 lbs	0.8	153



**HILLYARD**  
  
**THE CLEANING RESOURCE®**

Hillyard, Inc.  
P.O. Box 909  
St. Joseph, MO 64502  
Phone: 1-800-365-1555  
Fax: 1-800-861-0256

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The Mark of Environmental Responsibility

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SEARCH

## Green Seal Certified Products/Services

### Papers & Newsprint

Manufacturer	Product	Standard
<a href="#">American Paper Converting</a>	Eco Green Bathroom Tissue Eco Green Facial Tissue	GS-1 Tissue Paper
<a href="#">American Paper Converting</a>	Eco Green Center Pull Towels Eco Green White Hardwound Roll Towels Eco Green Kraft Roll Towels Eco Green Multifold Towels	GS-9 Paper Towels and Paper Napkins
<a href="#">AmSan</a>	Renown Green Seal Certified Roll Towels Renown Green Seal Certified Folded Towels Renown Green Seal Certified CenterPull Roll Towels	GS-9 Paper Towels and Paper Napkins
<a href="#">AmSan</a>	Renown Green Seal Certified Facial and Bath Tissue	GS-1 Tissue Paper
Atlantic Newsprint 1900 Thickson Road South Whitby, Ontario, Canada L1N 9E1 905-708-4311	100% Recycled Newsprint	GS-15 Newsprint
<a href="#">A.V. Olsson Trading Co.</a>	Beyond Gourmet Unbleached Coffee Filters Beyond Gourmet Unbleached Baking Cups Beyond Gourmet Unbleached Parchment	GC-8 Paper Products Used in the Preparation of Food
<a href="#">Cascades Tissue Group</a>	North River Hand Towels North River Napkins North River Roll and Center Pull Towels	GS-9 Paper Towels and Paper Napkins

	North River Wipers	
<a href="#">Cascades Tissue Group</a>	North River Bathroom Tissue	GS-1 Tissue Paper
<a href="#">Easter Seal Society of Western PA</a>	Daymax organizer and calendar refills Index sheet sets	GS-7 Printing and Writing Paper
<a href="#">Hillyard</a>	Hillyard Green Select Folded Towels Hillyard Green Select Roll Towels Hillyard Green Select Kitchen Roll and CenterPull Towels	GS-9 Paper Towels and Paper Napkins
<a href="#">Hillyard</a>	Hillyard Green Select Tissue	GS-1 Tissue Paper
<a href="#">Hoffmaster</a>	315-W Dinner Napkins 310-W Beverage Napkins 313-W Guest Towels 358-W Dispenser Napkins	GS-9 Paper Towels and Paper Napkins
<a href="#">Merfin Systems</a>	Premium Tissue VersaCore Tissue EcoPlus Tissue	GS-1 Tissue Paper
<a href="#">Merfin Systems</a>	Premium Center Pull Towels Economy Center Pull Towels EcoPlus Center Pull Towels	GS-9 Paper Towels and Paper Napkins
<a href="#">Mohawk Paper Mills</a>	Mohawk Irish Linen recycled paper Mohawk Options Recycled Mohawk Ultrafelt recycled paper Mohawk Superfine Recycled Mohawk Color Copy 100% Recycled Mohawk Color Copy Gloss (coated sheet) Mohawk 50/10 recycled paper (coated sheet) Mohawk Via recycled paper Mohawk BriteHue Recycled Strathmore Writing Recycled Strathmore Script Recycled Beckett Concept Recycled Beckett Expression Recycled	GS-7 Printing and Writing Paper
National Envelope	Envelopes made from Green Seal Certified papers: A2 · A6 ·	GS-7 Printing

	A7 · A8 · A10 · No. 6 3/4 · No. 9 · No. 10 · Monarch · 9 x 12 Booklet · 9 1/2 x 12 5/8 Booklet	and Writing Paper
<a href="#">Neenah Paper</a>	ENVIRONMENT recycled paper ATLAS Bond recycled paper CLASSIC CREST recycled paper CLASSIC Laid recycled paper CLASSIC Linen recycled paper CLASSIC COLUMNS recycled paper CLASSIC COTTON recycled paper Eames Paper Collection (Furniture, Painting color palettes) recycled paper Franklin/Neenah Opaque Recycled paper Neenah Original Bond recycled paper	GS-7 Printing and Writing Paper
<a href="#">Office Depot, Inc.</a>	Office Depot Premium Recycled White Copy Paper (11" x 17," 8.5" x 14," 8.5" x 11" 3-hole punch, and 8.5" x 11") EnviroCopy (11" x 17," 8.5" x 14," 8.5" x 11" 3-hole punch, and 8.5" x 11") Office Depot Premium Recycled Laser Paper (8.5" x 11") Office Depot Premium Recycled Ink Jet Paper (8.5" x 11")	GS-7 Printing & Writing Paper
<a href="#">Pro Link</a>	PRO-LINK Green and Green Elite Bath Tissue PRO-LINK Green Facial Tissue PRO-LINK Green Toilet Seat Covers	GS-1 Tissue Paper
<a href="#">Pro Link</a>	PRO-LINK Green and Green Elite Roll Towels PRO-LINK Green Folded Towels PRO-LINK Green Center Pull Towels PRO-LINK Green Kitchen Roll Towels	GS-9 Paper Towels and Paper Napkins
<a href="#">Wausau Paper</a>	Royal Complements Royal Cotton	GS-7 Printing

	Royal Fiber	and
	Royal Laid	Writing
	Royal Linen	Paper
	Royal Marble	
	Royal Metallics	
	Royal SilkPlus	
	Astroparche	
	Astrobrights	
	Exact Offset Opaque Colors	
	Exact Opaque White	
	Exact Index	
	Exact Tag	
	Exact Digital	
	Exact Multipurpose	
	Exact Eco 100	
<a href="#">Wausau Paper/Bay West</a>	EcoSoft Green Seal Folded Towels	GS-9 Paper Towels and
	EcoSoft Green Seal Roll Towels	Paper Napkins
	EcoSoft Green Seal Kitchen Roll and CenterPull Towels	
	EcoSoft Green Seal OptiFold Towels	
	Dubl-Nature Folded Towels	
	Dubl-Nature Roll Towels	
	Dubl-Nature OptiFold Towels	
<a href="#">Wausau Paper/Bay West</a>	EcoSoft Green Seal Tissue	GS-1
	Dubl-Nature Tissue	Tissue Paper

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9

Floor Finishes and Floor Strippers

# HILLYARD ONE PLUS®

## *The High Solids, Zinc-Free Floor Polish With The Deep Shine That Lasts*

### ***Deep Shine With Outstanding Durability***

One Plus® is a new-generation floor polish that's formulated to be durable, easy to use, and deliver a deep gloss. One Plus will give your floors a tough and durable shine that will stand up to scuffing, scratching, and black heel marks...even in critical high traffic areas.

### ***Zinc-Free***

One Plus contains no heavy metals (a potential issue for sewage treatments facilities). One Plus is a natural choice for maintaining both resilient and hard surface floors in schools, offices, hospitals, malls...and a multitude of other facilities. Hillyard Green Select products are formulated to minimize the impact on the environment, reduce the risk to human health and at the same time improve worker safety.

### ***Stackable And Detergent Resistant***

One Plus is formulated to be "stackable." That means you can apply multiple coats in one day (allowing adequate dry time), saving both time and labor. It has excellent leveling properties and dries to a deep, beautiful gloss. It also has excellent detergent resistance, retaining its shine even after repeated cleanings. One Plus technology also delivers excellent removability properties. This means less labor costs to you and a reduction in possible damage to your floors from harsh, alkaline strippers.

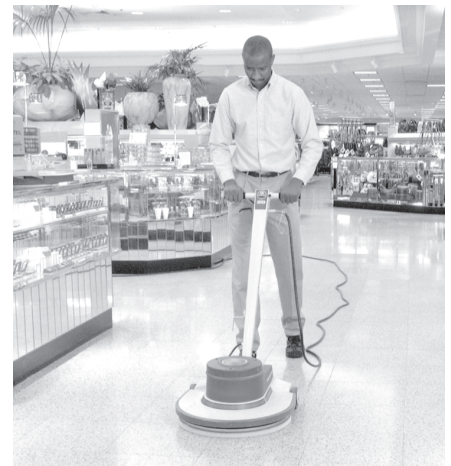
### ***Easy To Maintain***

Maintaining your One Plus coated floors is quick and easy. Just dust mop with Super Hil-Tone®, damp mop or autoscrub with Top Clean® or Assurance®, and spray buff with Hil-Glo® when necessary. One Plus can also be high speed burnished using H.R. 2000® or Hillyard Restorer. One Plus is available in one, five, and 55 gallon containers. Ask your Hillyard representative how you can give your floors the One Plus advantage. Just another example of high quality from Hillyard.



This product meets the Green Seal™ environmental standard for industrial and institutional floor-care products based on its reduced human and aquatic toxicity and reduced smog production potential.

HILLYARD  
CLEAN  
ASSIST®



# HILLYARD ONE PLUS®



This product meets the Green Seal™ environmental standard for industrial and institutional floor-care products based on its reduced human and aquatic toxicity and reduced smog production potential.

## ZINC-FREE FLOOR POLISH

**Suitable for Use on All Types of Resilient Flooring and Sealed, Varnished, or Painted Wood or Masonry Flooring**

**PREPARATION:** Strip other polishes from the floor with Hillyard Green Select Stripper, Super Strip or Devastator. (Do not use abrasive pads on tile containing asbestos.) Remove the stripping solution with a wet vac. Rinse with Hillyard Nutra-Rinse solution and pick up with a wet vac or autoscrubber. Damp mop twice. Allow floor to dry.

**APPLICATION:** Using a clean synthetic mop, apply 3 coats of One Plus allowing a minimum of 30 minutes between coats. Additional coats of One Plus may be applied, provided adequate dry time (at least one hour) is allowed between coats. Temperature, humidity, and air movement affect curing time.

**MAINTENANCE:** Use Hillyard Super Hil-Tone or Hil-Mist treated dust mop as required to remove loose soil and grit. Damp mop or machine scrub when necessary with Hillyard Top Clean or Assurance. If spray buffing is desired, wait 24 hours to ensure proper curing. Spray buff with Hillyard Hil-Glo or a 1:1 solution of One Plus and clean water. One Plus may also be high speed burnished.

**NOTICE:** One Plus can be used as it's own seal even on porous floors. Proper drying between coats prevents pulling or streaking with any polish. For best results, allow 30 minutes drying time between coats.

Do not pour unused polish back into container. Best results are obtained with adequate ventilation and floor temperatures above 60°F (16°C).

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent), then offer clean, dry container for recycling or reconditioning.

FLOOR COATING AND FINISHING MATERIAL AS TO SLIP RESISTANCE ONLY. 186S

### PROTECT FROM FREEZING

### DISCLAIMER OF WARRANTY

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

**HMIS Rating: Health = /1, Flammability = 0, Reactivity = 0**

## CAUTION

### HARMFUL IF SWALLOWED

**CONTAINS:** WATER (CAS #7732-18-5); ACRYLIC COPOLYMER EMULSION (CAS # UNKNOWN TO HILLYARD); TRIBUTOXYETHYL PHOSPHATE (CAS #78-51-3); DIETHYLENE GLYCOL MONOETHYL ETHER (CAS #111-90-0). USE WITH ADEQUATE VENTILATION. Prolonged inhalation of mist may cause slight irritation of nose, throat, and lungs. Keep container closed when not in use. Do not take internally.

**FIRST AID:** If swallowed, induce vomiting immediately. Immediately consult medical personnel. If inhaled move to fresh air. If discomfort persists, get medical attention.

**See Material Safety Data Sheet for additional information.**

**KEEP OUT OF REACH OF CHILDREN**

0507

## TECHNICAL DATA

### PHYSICAL PROPERTIES:

1. Nonvolatile matter .....	18% minimum
2. Weight per gallon, 25°C .....	8.58 lbs. (3.88 kg)
3. pH, 25°C .....	7.0 - 8.0
4. Sediment .....	0.05% maximum
5. Specific gravity, 25°C .....	1.03
6. Odor .....	Mild, not objectionable
7. Drying time 25°C, 50% RH .....	30 minutes, minimum
8. Freeze/thaw stability (3 cycles) .....	Passes

Black heel mark resistance .....	Excellent
Buffability .....	Spray buffable
Powdering resistance .....	Excellent
Scratch resistance .....	Excellent
Removability .....	Excellent
Recoatibility .....	Excellent
Slip resistance .....	Excellent
Durability .....	Excellent

### FILM PROPERTIES:

Leveling .....	Excellent
Gloss .....	Excellent
Clarity .....	Excellent
Water resistance .....	Good
Detergent resistance .....	Excellent
Scuff resistance .....	Excellent

### TEST METHODS:

1. ASTM D2834	5. ASTM D891
2. ASTM D1475	8. ASTM D3209
3. ASTM E70	
4. ASTM D1290	

398 (#527)



**MATERIAL SAFETY DATA SHEET****NFPA RATING:** Health = 1 Flammability = 0 Reactivity = 0**HMIS RATING:** Health = 1 Flammability = 0 Reactivity = 0**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION** (526N-55A)**Manufacturer's Name:** HILLYARD INDUSTRIES**Product Name:** ONE PLUS**Address:** 302 North Fourth Street**Date Prepared:** March 4, 2005

St. Joseph, MO 64501

**Prepared by:** Regulatory Affairs Department**Emergency Telephone No.:** (800)-424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)**Other information calls:** (816) 233-1321 (Ext. 8285)**SECTION II – INGREDIENTS/IDENTITY INFORMATION****Components****(Specific Chemical Identity:**

<b>Common Name(s)</b>	<b>CAS#</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>	<b>OTHER LIMITS RECOMMENDED</b>	<b>%</b>
Water	7732-18-5	none	none	N/A	---
Acrylic copolymer emulsion*	unknown to Hillyard *	not established	not established	N/A	---
Tributoxyethyl Phosphate **	78-51-3	not established	not established	N/A	1-3
Diethylene glycol monoethyl ether **	111-90-0	not established	not established	N/A	less than 5

\*EPA TSCA Chemical Inventory -- all ingredients listed.

\*\*This product contains the following chemicals subject to the reporting requirements of SARA Title III, Section 313, and 40 CFR Part 372: Diethylene glycol monoethyl ether and Tributoxyethyl Phosphate

**VOC (Concentrate):** 2.72%**SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**

**Boiling Point:** corr. >200°F    **Specific Gravity (H<sub>2</sub>O = 1):** 25°C = 1.027 & 39°C = 1.020  
**Vapor Pressure (mm Hg.):** 18.3    **Percent Volatile by Volume (%):** 80.2  
**Vapor Density (AIR = 1):** 1.02    **Evaporation Rate (ethyl ether = 1):** slower than 1  
**Solubility in Water:** dispersible    **Appearance and Odor:** non-objectionable odor  
**pH (concentrate) =** 8.07

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA****Flash point:** none (Tag Closed Cup)**Flammable Limits:** LEL = N/A UEL = N/A**Extinguishing Media:** N/A**Special Fire Fighting Procedures:** None**Unusual Fire and Explosion Hazards:** Material may spatter if temperature exceeds boiling point. Polymer film can burn.**SECTION V – PHYSICAL HAZARDS****Stability:** Stable**Conditions to Avoid:** N/A**Incompatibility (Materials to Avoid):** None known to Hillyard Industries**Hazardous Decomposition Products or Byproducts:** None known to Hillyard Industries**Hazardous Polymerization:** Will not occur**Conditions to Avoid:** N/A**SECTION VI – HEALTH HAZARD DATA****Routes of entry:** Inhalation? yes    Skin? yes    Ingestion? yes**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Prolonged inhalation of mist may cause slight irritation of nose, throat, and lungs. Ingesting may cause irritation of the digestive tract. 2. None known to Hillyard.

## SECTION VI – HEALTH HAZARD DATA continued

### Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = no      I.A.R.C. Monographs = no      OSHA = no

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH, as of this date, greater than or equal to 0.1%.

**Signs and Symptoms of Exposure:** Swallowing, breathing or absorbing may cause nausea.

**Medical Conditions Generally Aggravated by Exposure:** None known to Hillyard.

**Emergency and First Aid Procedures:** If swallowed, induce vomiting immediately. Immediately consult medical personnel. If inhaled move to fresh air. If discomfort persists, get medical attention.

## SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

**Steps To Be Taken In Case Material Is Released Or Spilled:** If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with federal, state and local regulations. Ventilate area of spill or leak. Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.

**Waste Disposal Method:** Spills should be picked up with wet vac or absorbent material. Dispose of liquid per federal, state and local regulations. Waste from normal product use may be sewer to a public-owned treatment works (POTW) in compliance with applicable federal, state and local requirements.

**Precautions To Be Taken In Handling And Storing:** Freezing of product may rupture container. Product shelf life is best retained by storage at 45-100°F temperatures.

**Other Precautions:** Close container after each use. Do not take internally. Keep out of reach of children.

## SECTION VIII – CONTROL MEASURES

**Respiratory Protection (Specify Type):** Not needed when following label directions.

**Ventilation:** Follow good engineering practices for public areas.

**Local Exhaust =** not required      **Mechanical (General) =** suggested      **Special =** N/A      **Other =** N/A

**Protective Gloves:** None required for brief contact.

**Eye Protection:** Normally not needed; contact may cause slight pain even though it is unlikely to cause injury.

**Other Protective Clothing or Equipment:** None required for brief contact.

**Work / Hygienic Practices:** Do not take internally; wash contaminated clothing before reuse.

## SECTION IX – TRANSPORTATION INFORMATION

**Applicable regulations:** 49 CFR = no; IMCO = no; IATA = no

**Proper shipping name:** Liquid Floor Wax & Polish

**UN No.:** not applicable      **Limited Qty.:** not applicable      **Hazard Class:** not applicable

**Labels required:** not required      **DOT Exception:** not applicable

**EPA Hazardous waste number / code:** not listed

**Hazardous waste characteristics:**

**Ignitability =** not applicable; **Corrosivity =** not applicable; **Reactivity =** not applicable.

### DISCLAIMER OF WARRANTIES

**NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.**

The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate.

**THE BUYER OR USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE, MISUSE OR DISPOSAL OF THIS PRODUCT. THE BUYER OR USER IS RESPONSIBLE TO COMPLY WITH ALL FEDERAL, STATE OR LOCAL REGULATIONS CONCERNING THE USE, MISUSE OR DISPOSAL OF THESE PRODUCTS.**

# HILLYARD GREEN SELECT® STRIPPER

## *Low Odor Polish Stripper*

### ***Environmentally Preferred Stripper***

Green Select Stripper is formulated to be non-toxic, phosphate free, biodegradable, and non-flammable, and it contains no dye or fragrance. Hillyard Green Select products are formulated to minimize impact on the environment, reduce the risk to human health, and at the same time improve worker safety.

### ***Effective Stripping For Your Green Cleaning Program***

Green Select Stripper is formulated to strip Hillyard One Plus®, a Hillyard Green Select high solids, zinc-free floor polish. It can be used to strip a variety of other polishes as well. When used as directed, it is safe to apply to asphalt, vinyl, vinyl composition, and even **linoleum**. It does an outstanding job of wetting, penetrating, and emulsifying polish. Formulated to be effective with cold water, which is better for the environment because it uses less energy.

### ***Lower Environmental Impact***

Low odor, no added fragrance, and no dye means Green Select Stripper has a positive effect on good indoor air quality. No phosphates and biodegradability means it has a lower impact on the environment than many comparable strippers. Green Select Stripper is conveniently packaged in one and five gallon containers. Ask your Hillyard sales consultant about the benefits of cleaning with Green Select Stripper.



This product meets Green Seal's standard for industrial and institutional floor care products based on its reduced human and aquatic toxicity and reduced smog production potential.

HILLYARD  
CLEAN  
ASSIST®



# HILLYARD GREEN SELECT® STRIPPER

**FAST ACTING STRIPPER FOR REMOVAL OF WAX AND POLYMERS  
FROM ASPHALT, VINYL, VINYL COMPOSITION, AND LINOLEUM**

**NON-BUTYL — PHOSPHATE FREE — BIODEGRADABLE — NON-FLAMMABLE — NO FRAGRANCE — NO DYE**

**DIRECTIONS:** Add 21 ounces of Green Select Stripper to each gallon of water (1:6 dilution) for light to medium buildup, (1:2 dilution) for heavy buildup. Apply a liberal amount to the floor with a clean mop, keeping floor uniformly wet. Let stand 10 minutes, then scrub with floor machine using a stripping pad to break up softened film. (Do not use abrasive pads on tile containing asbestos.) Work small areas, keeping floor wet at all times. Pick up the stripping solution with a wet vac, mop, or autoscrubber. Rinse thoroughly with Nutra-Rinse solution. Pick up solution and damp mop with clean water. Repeat if polish is not removed. Mix solution carefully. Some types of asphalt tile and linoleum may be discolored by stripper. To correct, scrub with a solution of Super Shine-All and cold water (3 oz./gal.). Repeat if necessary. Rinse thoroughly before recoating with floor polish.

**PRETEST:** Test on an inconspicuous area using 1:1 dilution. Allow to stand on floor 10 minutes. Wipe off with towel, rinse, and examine floor for bleeding or softening. Do not continue use if any deleterious effect is observed.

**NOTICE:** Floor may become slippery when stripper is present. Stripper vapors or liquid may cause discoloration on uncured, light colored painted surfaces. To conserve energy always use cold tap water.

**DISPOSAL:** Buyer assumes all risk and liability associated with disposal of this product (original concentration or dilution) in violation of applicable law.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent), then offer clean, dry container for recycling or reconditioning.

### DISCLAIMER OF WARRANTY

Seller makes no warranty of any kind, express or implied, except that this product shall be of seller's standard quality.

**HMIS Rating: Health = / 2, Flammability = 0, Reactivity = 0**

## WARNING

### MAY CAUSE EYE AND SKIN IRRITATION - HARMFUL IF SWALLOWED

**CONTAINS:** ETHANOLAMINE (CAS #141-43-5); WATER (CAS #7732-18-5); 3-METHOXY-3-METHYL-1-BUTANOL (CAS #56539-66-3); CITRIC ACID (CAS #77-92-9). Do not get in eyes, on skin, or on clothing. **USE ONLY WITH ADEQUATE VENTILATION.** Avoid breathing vapors or spray mist. Open windows and doors, use exhaust fans or other means to **insure fresh air entry during application and drying.** Refer to OSHA STANDARD 29 CFR 1910.94 for technical guidelines on keeping air contamination below acceptable exposure limits. Wash thoroughly after handling. Do not take internally. Keep container closed when not in use. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

**PERSONAL PROTECTIVE EQUIPMENT:** Wear impervious/slip resistant boots such as Hillyard Stripping Boots while standing in the stripping solution.

**FIRST AID:** In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists, get medical attention. Wash clothing before reuse and thoroughly clean contaminated shoes before reuse. If swallowed, do not induce vomiting; immediately give large amounts of water and **CALL A PHYSICIAN, hospital emergency room, or poison control center.** Inhalation - Remove victim to fresh air; if respiratory tract remains irritated, call a physician.

**See Material Safety Data Sheet for additional information.**

**KEEP OUT OF REACH OF CHILDREN**

1106

## TECHNICAL DATA

**PHYSICAL PROPERTIES:**

1. Color	Colorless
2. Odor	Not objectionable
3. Foreign matter	None
4. Nonvolatile matter, 3 hrs. @ 105°C	2.5 +/- 0.5
5. pH, 25°C	10 - 11
6. Specific gravity, 20°C/25°C	1.04
7. Weight per gallon, 25°C	8.66 lbs. (3.94 kg.)
8. Water solubility	Appreciable
9. Phosphates	None
10. Freeze-thaw (3 cycles)	Stable
11. Freezing point	-21°F

11. Butyl cellosolve content	None
13. Flash point (TCC)	None to 200°F
14. Viscosity, Brookfield	5 centipoise

**TEST METHODS**

4. ASTM D460
6. ASTM D891
7. ASTM D1475
13. ASTM D56
14. ASTM D1824

0807 (#964)

HILLYARD, INC. • P.O. Box 909 • St. Joseph, MO 64502 • Telephone: 1-800-365-1555 • <http://www.Hillyard.com>



**MATERIAL SAFETY DATA SHEET**

**NFPA RATING:** Health = 2 Flammability = 0 Reactivity = 0  
**HMIS RATING:** Health = 2/2 Flammability = 0 Reactivity = 0

**SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION (1108A)****Manufacturer's Name:** HILLYARD INDUSTRIES**Product Name:** GREEN SELECT STRIPPER**Address:** 302 North Fourth Street  
St. Joseph, MO 64501**Date Prepared:** June 3, 2008**Prepared by:** Regulatory Affairs Department**Emergency Telephone No.:** (800)-424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)**Emergency Telephone No.:** (816) 233-1321(Ext. 8285)<http://www.hillyard.com>**SECTION II -- INGREDIENTS/IDENTITY INFORMATION**

Components (Specific Chemical Identity: Common Name(s))	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Ethanolamine	141-43-5	3 ppm	3 ppm	N.A.	<4%
Water	7732-18-5	none	none	N.A.	---
3-Methoxy-3-methyl-1-butanol	56539-66-3	not established	not established	N.A.	---
Citric Acid	77-92-9	Not established	Not established	N.A.	---

VOC = 21.0%; VOC (1:2 Dilution) = 7%, (1:6 Dilution) = 3.0%

**SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS**

**Boiling Point:** 203°F      **Specific Gravity (H<sub>2</sub>O = 1):** 25°C = 1.01 & 39°C = 1.01  
**Vapor Pressure (mm Hg.):** 16.6      **Percent Volatile by Volume (%):** 97%  
**Vapor Density (AIR = 1):** 1.4      **Evaporation Rate (ethyl ether = 1):** slower than 1  
**Solubility in Water :** complete      **Appearance and Odor:** clear, colorless liquid, mild solvent odor  
**pH (concentrate) =** 9.9

**SECTION IV -- FIRE AND EXPLOSION HAZARD DATA**

**Flash point:** none (Tag Closed Cup)      **Flammable Limits:** LEL = N/A UEL = N/A  
**Extinguishing Media:** Carbon dioxide, dry chemical or foam (water spray to cool closed containers)  
**Special Fire Fighting Procedures:** Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals.  
**Unusual Fire and Explosion Hazards:** None known to Hillyard.

**SECTION V -- PHYSICAL HAZARDS**

**Stability:** Stable      **Conditions to Avoid:** N/A  
**Incompatibility (Materials to Avoid):** Keep away from strong oxidizers such as permanganate or strong oxides.  
**Hazardous Decomposition Products or Byproducts:** As with any organic material, combustion will produce carbon dioxide and carbon monoxide.  
**Hazardous Polymerization:** will not occur      **Conditions to Avoid:** N/A

**SECTION VI -- HEALTH HAZARD DATA****Routes of entry:** Inhalation? Yes      Skin? Yes      Ingestion? Yes**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Prolonged skin or eye contact may cause irritation. This product is not a sensitizer in guinea pigs using the Guinea Pig Maximization Test. This product is not a UN/DOT corrosive at 4 hours. Ingestion may cause nausea, vomiting, headaches, and dizziness. Acute oral limit test are not oral toxic at 5g./kg. Product concentrate was not toxic to rats by inhalation at 223 mg/liter. Since product contains some solvent it may be harmful if swallowed. Inhalation to fine fog mist can cause irritation to mucous membranes. Fine fog mist application is not recommended. 2. None known to manufacturer.

**Chemical listed as Carcinogen or Potential Carcinogen:**

**National Toxicology Program =** No      **I.A.R.C. Monographs =** No      **OSHA =** No



**SECTION VI -- HEALTH HAZARD DATA continued**

**Signs and Symptoms of Exposure:** Inhalation of high concentrations of vapors may cause respiratory nausea, vomiting, headaches, and dizziness.

**Medical Conditions Generally Aggravated by Exposure:** None known to Hillyard.

**Emergency and First Aid Procedures:** In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists get medical attention. Wash clothing before reuse and thoroughly clean contaminated shoes before reuse. If swallowed, do not induce vomiting; immediately give large amounts of water and CALL A PHYSICIAN, hospital emergency room, or poison control center. Inhalation - Remove victim to fresh air; if respiratory tract remains irritated, call a physician.

**SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE**

**Steps To Be Taken In Case Material Is Released Or Spilled:** Absorb large spills with floor dry material (see disposal below).

Small spills: Flush with water and pick up with mop or wet vacuum.

**Waste Disposal Method:** Dispose of in accordance with state or local regulations. This product contains no chemicals subject to the reporting requirements of SARA Title III, Sec. 313, and 40 CFR Part 372. Container disposal: Triple rinse (or equivalent), then offer clean, dry container for recycling or reconditioning.

**Precautions To Be Taken In Handling And Storing:** Avoid prolonged contact with eyes, on skin, or on clothing. USE ONLY WITH ADEQUATE VENTILATION. Avoid breathing vapors or spray mist. Open windows and doors, use exhaust fans or other means to insure fresh air entry during application and drying. Refer to OSHA STANDARD 29 CFR 1910.94 for technical guidelines on keeping air contamination below acceptable exposure limits. Wash thoroughly after handling. Do not take internally. Keep container closed when not in use. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

**SECTION VIII -- CONTROL MEASURES:**

**Respiratory Protection (Specify Type):** Follow good engineering practices.

**Ventilation:** Use ventilation according to number of people in the area.

**Local Exhaust =** Not required      **Mechanical (General) =** recommended      **Special =** N/A      **Other =** N/A

**Protective Gloves:** Not necessary when following label directions      **Eye Protection:** Not necessary when following label directions

**Other Protective Clothing or Equipment:** Wear impervious/slip resistant boots such as Hillyard Stripping Boots while standing in the stripping solution.

**Work / Hygienic Practices:** Wash contaminated clothing before reuse (including shoes).

**SECTION IX - TRANSPORTATION INFORMATION:**

**Applicable regulations:** DOT = No; IMCO = No; IATA = No

**Proper shipping name:** Cleaning compound

**UN No.:** not applicable      **Limited Qty.:** not applicable      **Hazard Class:** not applicable

**Labels required:** not required      **DOT Exception:** not applicable

**EPA Hazardous waste/number code:** not listed

**Hazardous waste characteristics:**

**Ignitability =** not applicable; **Corrosivity =** not applicable; **Reactivity =** not applicable

**DISCLAIMER OF WARRANTIES**

**NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.**

**The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate.**

**THE BUYER OR USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE, MISUSE OR DISPOSAL OF THIS PRODUCT. THE BUYER OR USER IS RESPONSIBLE TO COMPLY WITH ALL FEDERAL, STATE OR LOCAL REGULATIONS CONCERNING THE USE, MISUSE OR DISPOSAL OF THESE PRODUCTS.**



## *Environmental Certification*

*Presented to*

### **HILLYARD INDUSTRIES, INC.**

Green Seal, Inc. certifies that the following products comply with or exceed Green Seal's Environmental Standard for Floor Care Products: Finishes and Compatible Strippers Used for Industrial and Institutional Purposes (GS-40) and are licensed to use the Green Seal Certification Mark:

#527 New and Improved One Plus zinc-free floor polish  
#964 Green Select Stripper

*(Specific pack sizes listed in certification letter)*

Certified this 27th day of February, 2006.

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Mark T. Petruzzi, Vice President of Certification

# **FLOOR FINISHES & FLOOR STRIPPERS**

As per page 26 paragraph H. in the Guidelines and Specifications for the Procurement and Use of Environmentally Sensitive Cleaning and Maintenance Products, OGS has not presently adopted the (GS-40) Green Seal Standard for Floor Finishes and Strippers.

While we are not averse to testing Green Seal Certified Floor Finishes and Strippers, we have elected to use \_\_\_\_\_ as our preferred Floor Finish, because it has consistently demonstrated that it is easy to clean and can withstand the rigors of day to day traffic. The Stripper that we are using \_\_\_\_\_ is not Green Seal Certified, however it is very effective in reducing our labor as it completely lifts old wax or finish without having to wait extended time periods.