

**Multi-Clean®**

# **Green Cleaning Method Bulletin**



*A complete guide designed to offer guidance  
on the development and implementation of a  
Green Cleaning Program.*

*Use this manual along with the  
Environmental Solutions Electronic Manual  
to implement a customized green  
cleaning program for any facility.*

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# *Environmental Solutions* **Green Cleaning**



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Multi-Clean is proud to present this ENVIRONMENTAL SOLUTIONS Green Cleaning manual. Our longstanding commitment to environmental preservation and producing safer products remains as strong as ever. With ever increasing awareness of environmental issues, Multi-Clean is well positioned to offer a complete line of products that are safer for the indoor AND outdoor environments.

Building Service Contractors interested in pursuing certification under Green Seal's "Environmental Standard for Cleaning Services" GS-42 will find this manual useful. In-house cleaning staffs in healthcare, schools, and anyone interested in starting a Green Cleaning Program will find this manual useful as well.

Americans spend up to 90% of their time indoors. With modern building construction producing energy efficient, weather tight structures comes the issue of the quality of the air that we breath when we are indoors. This, coupled with the increasing fragility of the outdoor environment as it continues to deal with the stresses of population growth, is creating a need for healthier cleaning methods. Green Cleaning, when properly implemented, is designed to remove the harmful indoor pollutants while minimizing environmental impacts. The Multi-Clean ENVIRONMENTAL SOLUTIONS product line can help you achieve your green cleaning goals.

This method bulletin should be used along with the Environmental Solutions Electronic Manual on CD. This CD streamlines the green cleaning documentation process by providing easy to use templates that can be customized to meet your needs.



## Environmental Solutions

# Green Cleaning

## I. Introduction

### What is Green Cleaning?

*Green Cleaning is defined as cleaning for health without harming the environment.*

Green Cleaning is NOT simply about using “green” products, but is all about the entire process of cleaning and maintaining a facility.

To implement a Green Cleaning program, the entire process of cleaning must be examined with emphasis on techniques, products, and methods that make the indoor environment healthier and **at the same time** have minimal environmental impact.

The goal of Green Cleaning is to remove contaminants on a regular basis and to do so in a way that does not harm the indoor air or the environment. Whereas some regular cleaning products and maintenance methods may produce the desired results, they do so by adding harmful by products into the air or on the surfaces where they are used.

### Why is Green Cleaning Important?

*Here are some statistics that may help you realize the importance of Green Cleaning...*

- The Environmental Protection Agency (EPA) ranks indoor air pollution among the top five environmental risks to public health.
- The American Academy of Allergy, Asthma, and Immunology estimates that more than 50 million people in the U.S. suffer from allergic diseases, costing the health care system \$18 billion annually.
- The Surgeon General reported that 20 million Americans have asthma. That is 3 times as many as there were 25 years ago.
- The Surgeon General also has reported that 1 in 13 school age children suffer from some form of asthma.
- [www.epa.gov/IAQ](http://www.epa.gov/IAQ)

#### Common indoor pollutants include:

|  |                      |  |
|--|----------------------|--|
| <i>pollen</i>  | <i>mold spores</i>   | <i>cooking odors</i>                     |
| <i>dust mites</i>  | <i>dust</i>          | <i>bacteria</i>                          |
| <i>viral agents</i>  | <i>tobacco smoke</i> | <i>carpet dander</i>                     |
| <i>off gassing building materials</i>  |                      | <i>aerosol personal hygiene products</i> |
| <i>chemical usage (aerosol sprays, paint, cleaning chemicals, adhesives, etc.)</i> |                      |  |

# Environmental Solutions Green Cleaning



## What are benefits of a Green Cleaning Program?

- Cleaner indoor air can result in reduced absenteeism, and increased productivity.
- A healthy indoor environment helps improve morale, reduces turnover, and can help recruitment of new personnel.
- Increased awareness of healthy IAQ may cause tenants to pay higher rent in a green building.
- Better cleaning procedures and safer cleaning products can help lower healthcare costs and insurance costs.
- Building occupants are more aware of poor IAQ. A Green Cleaning program is likely to produce fewer complaints.
- Government buildings and schools gain compliance with new and emerging regulations.
- Green Cleaning helps extend the life of carpets, flooring, furnishing, computers, HVAC systems, etc.
- Green Cleaning in a facility will undoubtedly help improve public image.
- Using less paper products, chemical management systems, and recycling efforts have multiple positive impacts.

## How can Multi-Clean offer assistance?

Multi-Clean offers a complete line of green cleaners under the ENVIRONMENTAL SOLUTIONS product line. Modern technology has evolved to allow our chemists to develop products that work, all while having an excellent environmental and safety profile. For more details on Environmental Solutions products, including Green Seal and Dfe (Design for the Environment) Certified products from Multi-Clean, please refer to our **Environmental Solutions brochure**.

*Look for the Environmental Solutions logo, Dfe logo or Green Seal Certified Logo to identify Multi-Clean branded products that can be used as part of a Green Cleaning program.*



Check out these websites for more information:

[www.greenseal.org](http://www.greenseal.org)

[www.multi-clean.com](http://www.multi-clean.com)

[www.epa.com/dfe](http://www.epa.com/dfe)



## **Environmental Solutions**

# **Green Cleaning**

## **II. Developing a Green Cleaning Plan**

This information will help in meeting current and/or future requirements for creating a cleaning program that protects human health and the environment and can be used by cleaning service providers, including in house and external cleaning service providers (contractors).

For the purposes of a Green Cleaning Program, green cleaning encompasses all indoor activities typically required to clean commercial, public, and industrial buildings. Maintenance of exterior areas such as parking lots, grounds, or picnic areas is not covered, except for areas directly outside building entryways.

As you will soon see, a big part of developing a Green Cleaning Plan is: **DOCUMENTATION...DOCUMENTATION...and DOCUMENTATION.**

Fortunately, you may already have much of the documentation that relates to cleaning procedures, much of which may only require some minor changes.

### **Standard Operating Procedures - SOPs**

These are formalized documents that explain in detail how the company will conduct various operations. The SOPs typically include a title, purpose or scope to define what the document will be used for, and the actual detailed procedure. Below is a list of SOP's you should have as part of your Green Cleaning Plan:

#### **General SOP's**

- Cleaning Procedures: An SOP for every cleaning procedure to be conducted by employees
- Efficient Use of Chemicals
- Equipment Maintenance & Operation Procedures
- Communication Protocols & Requirements
- Training & Inspection Programs
- Reporting & Record Keeping

#### **Building Specific Green Cleaning Plan**

- Completed Green Building Survey
- A building schematic
- Areas to be cleaned and the frequency of maintenance
- A floor care program hard floors & carpet
- Employee training on assigned tasks for the facility.
- Chemical use tracking and quarterly reporting form.
- Cleaning chemical inventory
- Communications Plan



## **III. Green Cleaning Procedures**

You must develop SOP's that specifically address each of the items that follow.

### **A. Efficient Use of Chemicals**

*Develop an SOP that documents how you will insure chemicals are used safely, properly and at recommended dilutions.*

1. **Usage Tracking:** Chemical usage within the facility must be tracked and recorded quarterly.
2. **Dilution of Chemicals:** Provide written instructions to cleaning staff for the proper dilution of chemical cleaning products. Check the manufacturer's literature for more information.
3. **Dilution Control:** Utilize a system for proper measurement of chemicals for dilution purposes: a dilution control system, pre-measured packets, capsules, container measuring systems, etc.
4. **Waste Reduction:** Use of systems that help reduce chemical waste. *Example:* Dilution Control Systems.
5. **Empty Container Disposal:** Provide directions for disposal of empty containers.
6. **Conduct cleaning activities in a manner so that other building areas are not adversely affected.**
7. **Low Impact Cleaning Methods:** Systems or methods that reduces or minimize chemical usage (i.e. microfiber cleaning, Multi-Task Travel Station, Foaming Carpet Spotting Kits).

*The Multi-Task System can be an essential part of a Green Cleaning Program. The flexibility of the system allows you to use it as a traditional wall mount, or a portable gun, or as a stand alone proportioning bottle. This system will allow you to fulfill items 2, 3, 5 and 6 above.*

### **B. Entryways**

*Specific attention is required for entryways as this is the means by which dirt enters a building. The SOP should address daily cleaning procedures, matting placement at all entries (12-20 feet of matting recommended), and method of mat maintenance.*

### **C. Floor Care - Hard Floors**

*A complete hard floor care program should be documented and include daily, periodic and restorative maintenance procedures and their frequency. See the Multi-Clean Clear Essence Certified Floor Care System and the Multi-Clean Resilient Floor Care Method Bulletin #1415.*

### **D. Floor Care - Carpet**

*A complete carpet care program should be documented that includes a schedule for vacuuming, spotting and restorative cleaning. Multi-Clean Carpet Care Method Bulletin #1401.*

### **E. Disinfection**

*A protocol for disinfection use that uses only EPA registered products. Specific procedures outlining preparation of solutions, proper use and dwell time necessary.*



## **Environmental Solutions**

# **Green Cleaning**

### **F. Restroom**

*A documented procedure for restroom cleaning designed to keep restrooms in a clean and sanitary condition. Multi-Clean Restroom Care Method Bulletin #1402.*

### **G. Dining & Break Rooms**

*A procedure for cleaning food preparation and consumption areas.*

### **H. Trash Collection & Recycling**

*A protocol for collection and disposal of trash and general recycling guidelines and policies.*

### **I. Training Requirements**

**Cleaning Procedures:** *You must train all of your employees on standard cleaning procedures as outlined in your SOP's. You must document this training for each employee.*

**OSHA Hazard Communication:** *If your employees handle cleaning chemicals, you are required by law to conduct Hazard Communication training, sometimes referred as "Right to Know". This law requires that you inform employees of potential hazards in the workplace. It also requires you conduct training on safely using cleaning chemicals and the use of personal protection equipment.*

**Government Mandated Training:** *If cleaning employees work in the medical field, additional training may be required as part of the OSHA Bloodborne Pathogen Standard.*

### **J. Communications**

*The cleaning service provider must have a communication strategy with regard to cleaning personnel and facility managers that encompasses the following items.*

**Training Materials:** *Employees should be provided with training manuals, videos and other training materials on chemical information and green cleaning procedures in appropriate language and graphics.*

**Feedback:** *A system should be in place to allow employees to provide comments and suggestions about workplace issues and suggestions for improvement. Also, an occupant survey will be provided to building management to provide feedback on performance of cleaning operations. Communicate to management of the building the presence of pests and any maintenance issues discovered while performing cleaning operations.*

**Vulnerable Populations:** *Cleaning service providers are to request facility managers to identify any vulnerable populations (i.e. occupants sensitive to dust, chemicals, etc) and have a process in place to work with management, cleaning staff, and the individuals to solve the problem.*

**Cleaning Chemical Inventory:** *A list of all cleaning chemicals used in the building shall be provided to building management and be available upon request. It will include a contact person that is responsible for maintaining an MSDS file on the products used.*

# Environmental Solutions Green Cleaning



## IV. Chemicals, Supplies, Equipment

*The products listed in the Environmental Solutions brochure are all high performance products designed for facilities that have implemented or are interested in “Green Cleaning” programs. The Environmental Solutions products are the cornerstone to achieve these green cleaning goals:*

1. Cleaning for Health
2. Minimize Adverse Effects
3. Minimize Environmental Impacts

### Multi-Clean Environmental Solutions

- Meet VOC regulations
- No alkylphenol surfactants
- No ammonia, phthalates
- No carcinogens, mutagens
- No HAPs solvents
- No phosphates
- Readily biodegradable
- Low aquatic toxicity
- Low human toxicity
- Non corrosive
- No reproductive toxins

Multi-Clean uses stringent environmental and safety criteria for products included in our Environmental Solutions product line. Fortunately, many of the products you may already know meet this criteria and have been included in the Environmental Solutions product line.

- **Biodegradability:** All surfactant components are considered readily biodegradable per OECD standards.
- **Phosphate Free:** Products do NOT contain any phosphates.
- **Prohibited compounds:** Do NOT contain any alkylphenol surfactants, 2-butoxyethanol, phthalate compounds, carcinogens, teratogens, or mutagens.
- **Non-Corrosive:** NO corrosive or sensitizing ingredients.
- **Low Aquatic Toxicity:** NO compounds that are highly toxic to aquatic life.
- **Low Human Toxicity:** NO compounds that are highly toxic to humans.
- **Low VOC's:** DO NOT contain 2-butoxyethanol, or HAPS (Hazardous Air Pollutant) solvents.
- **Recyclable Packaging:** Uses packaging that is recyclable and reduces overall packaging waste.

**Environmentally Preferable Purchasing:** The U.S. government has defined green products for the purposes of procurement as follows:

*Products or services that have a lesser effect on human health and the environment when compared with competing products or services that serve the same purpose.*

This simple but effective definition was issued by the President in Executive order 13101.



## **Environmental Solutions**

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### **Supplies**

***A non chemical cleaning supply can be considered environmentally preferable if it meets the following criteria:***

- Meets minimum recovered content as designated by the U.S. EPA's Comprehensive Procurement Guidelines.
- Paper products have not been bleached by chlorine or derivatives of chlorine.
- Plastic products are made of PVC free materials.  
These items may include trash liners, toilet seat covers, general purpose wipes, office recycling or trash containers, or floor mats.

Manual cleaning equipment can be considered environmentally preferable if it meets at least one of the following:

- Uses at least 50% wood certified from sustainable sources.
- Uses at least 25% post consumer recycled plastics or biodegradable plastic substitutes.
- Uses at least 50% organically grown material
- Uses at least 25% reclaimed, reused or post consumer recycled materials.

These products may include brooms, dry/wet mops, brushes, buckets, dustpans, toilet plungers, snakes, toilet bowl brushes, window squeegees, scrapers, ladders, carts/totes, spray bottles, signage, and other non-automated cleaning equipment.

### **Guidelines for Equipment**

- Vacuum cleaners should meet Carpet and Rug Institute (CRI) Green Label Program requirements. ([www.carpet-rug.org](http://www.carpet-rug.org))
- Vacuum cleaners should operate at a sound level at less than 70 decibels.
- Carpet Extraction Equipment should meet the CRI bronze seal of approval.
- Floor Maintenance equipment should be equipped with controls or devices for capturing and collecting particulates and operate at less than 70 decibels.
- Propane powered equipment must have high efficiency, low emissions engines as defined by the California Air Resources Board (CARB) and should be equipped with catalytic and exhaust monitoring systems.
- Automatic scrubbers should be equipped with a control method for variable rate dispensing of cleaning products.
- A plan for phasing out equipment that does not meet the above criteria should be in place.

### **Inspection & Maintenance Logs**

A quarterly maintenance program that inspects and maintains performance of equipment is required. The results of the quarterly inspections are to be recorded in a maintenance log.



## **V. LEED (Leadership in Energy and Environmental Design)**

*LEED is a program developed by the U.S. Green Building Council to promote sustainable building practices in existing building AND in the construction of new buildings. The LEED program aims to establish standards for sustainable buildings and offers a certification process by which buildings can become LEED Certified. There is a certification for existing buildings (LEED-EB) and one for the design and construction of new buildings (LEED-NC).*

*The US Green Building Council states that their mission is:*

*To promote buildings that are environmentally responsible, profitable, and healthy places to live and work*

*Using Environmental Solutions products from Multi-Clean and adopting various Green Cleaning practices can earn a significant amount (>25%) of LEED-EB points toward basic certification.*

### **The Connection between LEED & Green Cleaning**

The LEED certification process for existing buildings gives points for sustainable practices and awards a graded certification to facilities depending on the points earned:

**LEED Certified: 32-39 points**      **Silver: 40-47 points**  
**Gold: 48-63 points**              **Platinum: 64+ points**

**The certification process provides points in the following categories:**

|  |    |        |
|--|----|--------|
| ➤ Sustainable Sites                    | 14 | points |
| ➤ Water Efficiency                     | 5  | points |
| ➤ Energy and Atmosphere                | 23 | points |
| ➤ Materials and Resources              | 16 | points |
| ➤ Indoor Environmental Quality         | 22 | points |
| ➤ Innovation in Operation and Upgrades | 5  | points |

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**Total Possible Points**                      **85**      **points**

Facilities can earn points using Green Cleaning practices under the Materials and Resources Category (3 points) and the Indoor Environmental Quality Category (6 points).

Visit the U.S. Green Building Council website to learn more at [www.usgbc.org](http://www.usgbc.org).



## Environmental Solutions Green Cleaning

# VI. CD-ROM Instructions

### Green Cleaning Electronic Manual

The Environmental Solutions Manual on CD-ROM offers more extensive information and contains pre-formatted forms that you can use to document your Green Cleaning Program.

#### Software Requirements:

Windows XP

Adobe Acrobat 5.0 or higher

Microsoft Word (for forms only)

- Getting Started:** Insert CD into drive. If the program doesn't start automatically, the CD-ROM may be opened one of two ways:
  - Click on **START** then **RUN**. The file name **D:\Autorun.exe** should be displayed in the dialog box; if not, type it in and click **OK**. The manual should open to the title page.
  - Open 'My Computer' and double click the CD-ROM drive (should be titled 'Green Clean') and the manual should open to the title page.
- Viewing the Manual:** It is easiest to view the manual full screen. On the tool bar click on **VIEW**, then from the drop down dialogue box click **FULL SCREEN**. To exit the full screen view simply press the escape key (**ESC**) on your keyboard.
- Navigating the Manual:** More detailed examples on efficient navigation are included with the manual (Green Directions). Here are some navigation basics:
  - **Index** – The index page is an outline of the entire manual. Each heading and sub-heading is interactive, with links that will take you to the specified place in the manual. The cursor will change from an arrow to a hand when over a link.
  - **Next/Previous Page** – Click on these icons in the lower right hand corner to navigate page to page.
  - **Minuteman Multi-Clean Logo** – Click on this burgundy logo in the lower right hand corner to be transferred back to the index.
  - **Other Links** – Other links are located throughout the manual which open websites, literature, MSDS's, forms, etc. Most links will be a burgundy color.
- Documents Forms:** The CD-ROM includes forms for documenting your Green Cleaning Program. In the Manual there are samples of the forms with a link to each form. When opened, each form can be filled out on the computer and saved to your hard drive under a new name. Note: The forms do not have links back to the manual, so they must be closed or minimized to return.

# Multi-Clean® Environmental Solutions

| Green Seal Criteria |                |                                    |                       |                    |                |                         |                  |                        |                             |                      |             |                          |  |
|---------------------|----------------|------------------------------------|-----------------------|--------------------|----------------|-------------------------|------------------|------------------------|-----------------------------|----------------------|-------------|--------------------------|--|
| Green Logo          | Human Toxicity | Carcinogens or Reproductive Toxins | Skin & Eye Irritation | Skin Sensitization | Combustability | Ozone/VOC % in Dilution | Aquatic Toxicity | Aquatic Biodegradation | Eutrophication / Phosphates | Recyclable Packaging | Concentrate | No Prohibited Ingredient |  |

## General Purpose Cleaners

|                        |   |   |   |   |   |   |     |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|-----|---|---|---|---|---|---|
| #5 Century Maintenance |  | ✓ | ✓ | ✓ | ✓ | ✓ | 0   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Double-O-Seven         |  | ✓ | ✓ | ✓ | ✓ | ✓ | 0   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Tough Green            |  | ✓ | ✓ | ✓ | ✓ | ✓ | <1% | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Super Clean Shine      |  | ✓ | ✓ | ✓ | ✓ | ✓ | 0   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Blue Blazes            |  | ✓ | ✓ | ✓ | ✓ | ✓ | 0   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

## Washroom Care

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Foamy MAC              |  | ✓ | ✓ | ✓ | ✓ | ✓ | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| #11 & #17 Odor Control |  | ✓ | ✓ | ✓ | ✓ | ✓ | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

## Disinfectants

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| #256 Century Q 256 |  | ✓ | ✓ | ✓ | ✓ | ✓ | 0 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|

## Specialty

|                 |   |   |   |   |   |   |     |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|-----|---|---|---|---|---|---|
| #2 Multi-Shine  |  | ✓ | ✓ | ✓ | ✓ | ✓ | <1% | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| #3 Eliminator 3 |  | ✓ | ✓ | ✓ | ✓ | ✓ | <1% | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

## Carpet Care

|                    |   |   |   |   |   |   |     |   |   |   |   |   |   |
|--------------------|---|---|---|---|---|---|-----|---|---|---|---|---|---|
| Extraction Shampoo |  | ✓ | ✓ | ✓ | ✓ | ✓ | <1% | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ECO2               |  | ✓ | ✓ | ✓ | ✓ | ✓ | 0   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

## Floor Care

|                |   |   |   |   |   |   |     |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|-----|---|---|---|---|---|---|
| Clear Essence  |  | ✓ | ✓ | ✓ | ✓ | ✓ | <7% | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ultra Stripper |  | ✓ | ✓ | ✓ | ✓ | ✓ | <5% | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**For a complete list of products please see the Multi-Clean Environmental Solutions Brochure.**

Warning & Disclaimer: Results may vary. Multi-Clean chemicals are to be used only by appropriately trained personnel. IMPROPER USE POSES RISK OF PHYSICAL INJURY OR PROPERTY DAMAGE. See appropriate Multi-Clean Method Bulletin for further warnings and information for your application. The suitability of and proper application of this product is the responsibility of the applier. The manufacturer disclaims all warranties, express and implied, including any warranties of MERCHANTABILITY AND FITNESS OF PURPOSE. The manufacturer's liability is limited to replacement of or reimbursement for any product proved defective. No person has authority to waive these disclaimers or make any representations or warranties on behalf of the manufacturer, except in writing signed by the manufacturer.