



# Field Application Manual

## WARRANTEED TREATMENTS

Prepared by, and is the  
Confidential Work Product and  
Sole Property of:

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## What is it and How Does it Work?

**CleanSeal EP & D-TOX are totally Green NON-TOXIC, NON-HAZARDOUS aqueous, hydrophobic, proprietary “polymer-like” compounds which form a permanent, transparent, capsulate over living microbes on multiple surfaces suspending growth, trapping all organisms and their dangerous cytoskeleton under the cured CleanSeal film, thereby NEUTRALIZING the problem by sealing the surface and anything thereon permanently and safely...guaranteed in writing!**

CleanSeal can be used during construction/restoration projects on new materials to guard against microbial attack, or can be applied to existing exposed surfaces to arrest microbes and odors that have already migrated to that surface. In either case, mold, mildew, bacteria, viruses, and carcinogens are either prevented from fully forming or are neutralized where they have taken hold. As a preventative, CleanSeal covers the surface as a barrier which disables a microbe's ability to form a covalent bond to the surface necessary to sustain growth of the organism or the development of its protective cytoskeleton.

As a post infestation treatment, CleanSeal seals in the microbes under our patented chemical solution which, in turn, immobilizes the microbe safely under the treatment application and thereby traps all organisms permanently. However, our product is not a plastic cover-up. CleanSeal has the unique characteristic of being a one way “breathable” compound which allows moisture to dry naturally without allowing microbes (or ODORS) to escape and re-grow on the exterior surface of our product.

## Warranted Surface Applications

***Painted and Unpainted Interior Walls  
Indoor Stone, Brick, or Concrete  
Metal Surfaces  
In Kitchens and Bathrooms  
Fire and Water Restorations  
Raw Wood & Construction Materials***

***In Crawlspace  
Basements & Attics  
Under Flooring & Carpet  
Behind Walls  
HAZMAT Events  
Drywall (replaces Primer)***

And now available for Internal **HVAC/Ducts/System** Protection and  
**EXPOSED CARPET**

*CleanSeal...Totally Clean...Totally GREEN!*



## **Guidelines for Field Applications. Treatments & Safety**

### **Recommended Equipment, Accessories, Safety Items & Materials**

Graco XR7 industrial sprayer and B&G 2600 Ultra Lite Fogger (with 4 foot hose attachment)

Two (2) spare replacement tips (Tip size of .015 or greater)

Two (2) replacement filters for spray gun

Repair kit for a Graco XR7; includes washers, o-rings etc

Extension Tip (allows to spray hard to reach spots)

Additional 25ft hose

Additional 50ft hose

One (1) Pint of cleaning and protect agent

One (1) 4-6 Inch Funnel

Two (2) five (5) gallon buckets (transparent plastic)

OSHA approved eye protection (goggles)

Hard Hat

Dust Mask

Set of assorted wrenches and screw-drivers

Two (2) 50ft 12 gauge electrical cords

Box of disposable rags.

Push broom

Two (2) rolls of painters tape.

Hydes super guide wall paper tool

Two (2) dry wall sponges

One (1) 10-12 Inch oscillating/tilting fan

One (1) 9 Inch Paint Roller with roller pan and a supply of 3/8 Inch lint-free foam roller sponges.



## General Treatment Guidelines, Recommendations, & Rationale

*This is designed for your education and safety, as well as to ensure that treatments and applications are completed correctly and efficiently. In some places we will be repetitive, this is generally for your safety and that of customers.*

*As part of the education process we have asked some questions at the end of each item to stimulate discussion. However, space is provided below each item for additional information, please ask questions and make notes for future reference in the field.*

### General Preparatory Instructions

\*Before any application or treatment is begun, make certain that the following safety measures have been performed.

- A. Have the CLIENT/CUSTOMER move any equipment, furniture, pictures, valuable articles or items, etc.. People and pets should also be relocated away from the treatment area.**
  
- B. In enclosed environments, if there is any crusted growth, protruding bio-load, or general debris on the surface to-be-treated, wipe the surface material away with a damp sponge using warm water only (no soap or detergents) while using proper protective equipment at all times.**
  
- C. If necessary, make certain to apply tape to any area that requires protection from treatment.**
  
- D. Make certain that all eye protection is in place and secure.**



## General Treatment Instructions, Recommendations, & Explanations

1. CleanSeal is most effective when sprayed on a surface using the recommended equipment therefore spraying is the preferred method in most cases.. However, there may be surfaces which may require rolling or a brush/sponge treatment in order to either reach or treat with an effective amount of CleanSeal.
2. Sprayer should be held at a distance of 18 to 24 inches away for effective coverage (See Photos).
3. Fan size (spray pattern) should be **not less than 10 inches**.
4. Coverage- Single Treatment- Approximately 650 Sq. Feet using fogger or airless sprayer.



**Applications to New Construction**  
**(Raw Wood/Materials, No Drywall Up, "Skeleton" Condition)**

1. CleanSeal EP/D-TOX should not be applied until structure is "dried in".
2. Recommended that area is "people free".
3. Proper protective gear.
4. Application is recommended for all interior walls that have or will have drain pipes, plumbing, or condensation lines when finished (Sprayer should be held at a distance of 18 to 24 inches away for effective coverage).
4. Apply CleanSeal to all exterior framing and sheathing.
5. CleanSeal should be applied to sub-floors (if exposed) at least two (2) feet out from exterior wall.
6. OBSERVE-Vertical applications of CleanSeal as some dripping or running may occur.
7. OBSERVE- Horizontal applications (sub-flooring, under shower/tubs, kitchen cabinets etc.) should "pool" slightly. If excessive, these can be absorbed with any type of cloth.





## **Applications for New Construction (Drywall In Place, but Not Painted)**

1. Recommended that area is debris and person free.
2. Clean existing exposed areas with a “damp” sponge (soap free) to remove and neutralize damage or debris.
3. Proper protective gear secured.
4. Apply CleanSeal to all exterior wall cavities .
5. CleanSeal should be applied to dry wall (Sprayer should be held at a distance of 18 to 24 inches away for effective coverage) attaining 100% coverage .
6. Remember vertical applications may “run” slightly, while horizontal areas should “pool”.
7. When dry, CleanSeal will adhere to any surface with a super-thin layer that will serve as a “primer” for coats of paint.

**Special care should be given to areas such as kitchen cabinets and bathroom floors.**





## Applications and Treatments onto Painted Walls/Primed Walls In New, Enclosed, or Existing Structures

1. Recommended that area is debris and person free.
2. Proper protective gear secure.
3. Protect finished floors and windows using drop cloths, tape etc.
4. Clean existing exposed areas with a “damp” sponge (soap free) to remove and neutralize damage or debris.
5. CleanSeal can be applied over and all Latex paints. We do not recommend using on Oil Based Paint or Stain as the product cannot be absorbed into the surface.
6. Sprayer should be held at a distance of 18 to 24 inches away for effective coverage (Remember vertical applications should “run” slightly).

**IMPORTANT-Should “running” or “dripping” occur on a painted wall or surface, use roller to smooth out runs before they dry. When smoothing, the roller should be used vertically and at angles, never horizontally. If “bubbles” should appear on surface, use 10-12 inch tilting fan or hairdryer to eliminate “bubbles”.**

7. Indoor raw wood, stone, cement, concrete, or brick should be treated just as with the interior walls. Color is not of importance as the treatment will be absorbed without apparent application.. This is more or less a “customer preference” treatment.





## Basement and Crawl Spaces Application

1. Proper protective gear
2. Recommended the area is debris and people free
3. Clean existing exposed areas with a “damp” sponge (soap free) to remove and neutralize damage or debris.
4. Basements-Apply CleanSeal to masonry walls and cement floors (Two (2) feet from wall).
5. Opened floor joist should be coated with special attention to areas that house plumbing or condensation lines.
6. CleanSeal replaces the expensive UGL that is being used for a vapor barrier.
7. Crawl space- Apply CleanSeal to Masonry foundation and open floor joist.
8. Basements and crawl spaces alike, applications of CleanSeal should be heavier, holding the sprayer tip 18-24 inches from surface using conventional airless sprayer (if using “fogger” device it is not necessary to apply at close range).





## Application Under Flooring or Carpet, or Exposed Underlayments

There are two types of conditions that can be performed under carpet and flooring, regardless if they are new materials, or those damaged by water the procedure is the same.

1. Proper protective gear secured.
2. Recommended the area is debris and people free.
3. For carpet or flooring, apply the same concentration of CleanSeal on the foundation area where the carpet or flooring is to be placed as with basements (holding the sprayer tip 8-10 inches from surface).
4. For carpet, apply a single heavy coat of CleanSeal to the under pad.
5. For carpet, apply a single heavy coat on the underside **only** of new carpet.
6. For carpet that has water damage (and has been remediated) and or a “musty” smell, apply two (2) heavy coats of CleanSeal to the underside **only** of the damaged carpet to remove odor as well. ***For top side carpet application, see “Exposed carpet” protocol section herein.***
7. For new wood flooring, apply a single heavy coat of CleanSeal to the under side of the flooring material. If the top side of the flooring material has **not** been finished, apply a single heavy coat of CleanSeal to both the underside and topside.
8. For flooring has been refinished, apply a single heavy coat on the underside of new flooring. If the top side of the flooring material has **not** yet been refinished, apply a single heavy coat of CleanSeal to both the underside and topside.

**Note- Do Not Apply CleanSeal to the exposed surface side of Carpet or Flooring**



**CleanSeal**

**Application for Fire Damaged Structures**

**CleanSeal is impressively effective for cost-cutting smoke damaged materials. Its use traps the “smoke-smell” and encapsulates fire by-products that may contain carcinogens.**

**IMPORTANT- All structural and framed areas effected by **fire damage** should be professionally inspected for structural stability and safety before any CleanSeal treatment is attempted. As well, HVAC should have been inspected and cleaned, and damaged materials such as insulation should be removed before treatment.**

1. Proper protective gear
2. Recommended the area is debris and people free.
3. Clean existing exposed areas with a “damp” sponge (soap free) to remove and neutralize damage or debris.
4. Dry wall that is “smoked” requires a minimum of **two (2) heavy coats** of Clean Seal (holding sprayer/fogger tip 8-10 inches from surface and passing over the surface **twice**).
5. Any area or surface which is “charred” from direct heat, flame, or smoke should receive a minimum of **three (3) heavy coats** of CleanSeal (holding the sprayer tip 8-10

inches from surface and passing over the surface **three times**).



# CleanSeal

## Applications for Odors (Common and Hazardous)

1. Recommended that area is debris and person free.
2. Clean existing exposed areas with a “damp” sponge (soap free) to remove and neutralize damage or debris.
3. Proper protective gear secured.

#### 4. Various Odor Conditions-

\*Cigarette Smoke Smell on Walls, etc.- **One (1) to two (2) Coats Recommended**

\*Must, Mildew, Mold Odor caused by Water- **Two (2) coats Recommended**

\*Chemical, Pesticide, Sewage Spills- **Two (2) coats Recommended**

\*Smoke from Fire-**Three (3) Coats (applied as double coat followed by a third coat after drying)**

\*Hazardous Material (HAZMAT)-Call to obtain Specific Protocol contingent upon material.



**CleanSeal**

### **Applications for Stains and Microbe Growth**

1. Recommended that area is debris and person free.
2. Clean existing exposed areas with a “damp” sponge (soap free) to remove and neutralize damage or debris.
3. Proper protective gear secured.

### **STAINS**

CleanSeal is not a “stain remover”. However, under certain circumstances when applied to non “rooted” staining from water damage on PAINTED or PRIMED surfaces, CleanSeal will lighten and even remove stains (see below). If a stain can be removed, it will be apparent within a matter of minutes or even seconds. This not true for unpainted raw wood, drywall, plaster, metal, or caulking.



**Time elapsed in this treatment was 15 seconds.**

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## **Live Microbe Growth**

**WE RECOMMEND** when “live” toxic variety microbes are found on surfaces that caution always be taken in approaching these treatments. In interior settings and environments CleanSeal **can be applied directly onto living microorganisms** and it will neutralize them where they are growing and will prevent them from penetrating the top-side CleanSeal treatment. In fact over time visible many “live” flowering microbes will disappear, though their rooted stains will not. However, it is **always recommended** for the safety of the applicator and the customer that living microbes be remediated so as to eliminate the problem completely and professionally. We recommend certain approved “green” disinfectants which work quite effectively with CleanSeal to address the entire problem.

# CleanSeal

## Exposed Carpet Treatment

CleanSeal can be used in performing a variety of exposed commercial and residential carpet applications, including as a preventative, or as part of a restoration, remediation, decontamination, or simply in cleaning carpet which is soiled. This is significant for a number of reasons, and is offered with a **5 YEAR WARRANTY** against microbial intrusion into the fibers of carpet.

### Preventative & Decontamination Without Stains (Fogger Application)

**Step 1-** In preparing for a project application CleanSeal must be diluted from “concentrate” (in 55 gallon barrel form) to “regular” strength. **Caution: if CleanSeal is used in concentrate form the application will not achieve the desired results, and will in fact cause polymerization of the carpet and turn it into “Astro-Turf”.**

**Step 2-** In preparation for application, one (1) gallon of regular strength CleanSeal should be “strain poured” into a five (5) gallon commercial container.

**Step 3-** Into the same five (5) gallon container, the applicator should pour one gallon of **Benefect Disinfectant** (a totally “Green” EPA Approved Disinfectant for all surfaces including carpet and HVAC applications). When the two solutions have been poured into the container they should be mixed thoroughly.

**Step 4-** Once the two are mixed, the applicator should fill the five (5) gallon container to the top ring of the container with **WATER** and, again, stir the mixture thoroughly. The result is the finished solution ready for application.

**Step 5-** Using a “fogger”, the solution should be sprayed directly onto the desired surface from a distance of not more than 24 inches, and no closer than 18 inches with a spray fan of not less than 10 inches wide. Let Dry 1-1.5 Hours.

**Result: Application disinfects existing fibers terminating existing growth of mold, viruses, bacteria, allergens, ODORS, etc. from the fibers and obstructs the potential for future growth of microbes in the fibers. The application will withstand steam cleaning and normal wear and carries a 5 Year Warranty against microbial intrusion into the treated fibers.**

### Restoration/Decontamination/Cleaning With Stains (\*Carpet Cleaner Application)

Repeat **Steps 1-3** outlined above.

**Step 4-** Once the two are mixed, the applicator should fill the five (5) gallon container to the top ring of the container with **Benefect Impact Carpet Cleaner** (another totally “Green” solution) and, again, stir the mixture thoroughly. The result is the finished solution ready for application.

**Step 5-** Before applying mixture to the entire exposed surface, the applicator should apply **Benefect Impact Carpet Cleaner (only)** directly to any/all **visible stains** and then use agitation to remove the stain as thoroughly as possible (this is commonly known as “spot treating”).

**Step 6-** Once any “spot treatment” phase is complete, the applicator should fill a standard carpet cleaning agitation device with the mixed solution from the five (5) gallon container and apply the mixed solution over the entire treatment area until all visible stains are removed. Let dry 2-3 hours.

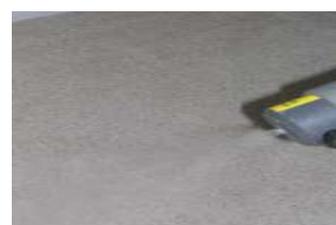
**Result: Application cleans & disinfects existing fibers eliminating stains, terminating existing growth of mold, viruses, bacteria, allergens, ODORS, etc. from the fibers, disinfects fibers, and obstructs the potential for future growth of microbes in the fibers. The application will withstand steam cleaning and normal wear and carries a 5 Year Warranty against microbial intrusion into the treated fibers.**



**Fogger Application**



**Steamer Application**



**Colorless & Odorless**



## HVAC Cleaning/Preventative Application Protocol

CleanSeal HVAC can be applied to all material type air duct surfaces using the following steps.

### Detailed Explanation of HVAC Duct Anti-Microbial Treatment and Resurfacing

1. Locate the main trunk opening (or "openings" in large multi-unit facilities) leading into the structure duct work, or make a single access opening into same, to adequately insert application delivery device into the main trunk and duct work.
  2. Using a CleanSeal recommended fogger (Airless Sprayer, Cold Fogger, or Magna Sprayer), spray CleanSeal "**Combo**" into/throughout the system until the distinct aroma of the anti-microbial (CSD) can be physically detected by scent or **approximately thirty (30) seconds per 100 square feet of heated space with system fan running.**  
NOTE: If there is no power in the structure negative pressure is required to achieve results.
  3. Thoroughly clean filter housings/mountings and any vents that have any visible signs of microbe debris with CleanSeal "**Clean**".
  4. Replace central unit cover, and/or apply temporary repair "duct tape" to any alternate opening made.
  5. Replace all filters with new filters.
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## **CleanSeal Interior “Environmental Stabilization” Applications for Distressed Properties (with Warranty Protection)**

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**The following are recommended, non-reconstructive, service protocols intended to ensure the stabilization of interior residential and commercial environments by CleanSeal certified personnel ONLY.**

### **Step 1- Preparation and Initial Treatment**

To ensure that an interior environment is safe to enter for all persons (including applicators/technicians) all surfaces should be fogged with CleanSeal CSD anti-microbial solution to eliminate non-rooted and/or non-colonized microbial intrusion and all incidental odors within the structure. This will stabilize the IAQ and should require approximately one (1) gallon of CSD per 700 square feet of application.

### **Step 2- Exploratory Phase 1**

Following CSD application, examination should be performed throughout the interior of all structures to identify any/all signs of visible microbial growth and infestation, water damage, smoke damage, nicotine stains, other discoloration(s) or likely sources or origins of existing odors, etc. for possible capsulation application with CleanSeal EP.

### **Step 3- Exploratory Phase 2**

As in Step 2, examination by should be performed in ancillary attics, crawlspaces, under sinks, carpet, and other fabrics for same signs of microbial intrusion infestation.

### **Step 4- Capsulation and Sealing**

CleanSeal EP should be applied to all visible and accessible surfaces (except fabrics) where microbial growth has been identified in Step 2 and 3 above. On surfaces where colonization can be identified a “double” treatment of EP should be applied to ensure complete capsulation of microbes and odors origins. Specifically, the double treatment should be undertaken with two passes of solution separated by drying time between each application. EP coverage should equate to approximately 700 square feet per gallon.

### **Step 5- Carpet and Fabric Cleaning**

CleanSeal “Clean” should be applied to all carpet and fabric surfaces, and agitation performed, to remove discoloration and odors.

### **Step 6- HVAC Treatment #1**

CleanSeal “Clean” should be applied to the coils of HVAC units to rid the coils of microbes, dirt, dust, and other debris build-up as these are a common source of odor and microbe origin. No wiping of coils is required.

### **Step 7- HVAC Treatment #2**

CleanSeal “Combo” should be applied directly into the air handler of the HVAC system per the prescribed CleanSeal application steps detailed below to ensure cleaning and resurfacing (sealing) of all types and varieties of duct work..

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### **Detailed Explanation of HVAC Duct Anti-Microbial Treatment and Resurfacing**

1. Locate the main trunk opening (or "openings" in large multi-unit facilities) leading into the structure duct work, or make a single access opening into same, to adequately insert application delivery device into the main trunk and duct work.
2. Using a CleanSeal recommended fogger (Airless Sprayer, Cold Fogger, or Magna Sprayer), spray **CleanSeal "Combo"** into/throughout the system until the distinct aroma of the anti-microbial (CSD) can be physically detected by scent or **approximately thirty (30) seconds per 100 square feet of heated space with system fan running**.  
*NOTE: If there is no power in the structure negative pressure is required to achieve results.*
3. Thoroughly clean filter housings/mountings and any vents that have any visible signs of microbe debris with **CleanSeal "Clean"**.
4. Replace central unit cover, and/or apply temporary repair "duct tape" to any alternate opening made.
5. Replace all filters with new filters.

### **Step 8- Streaming Air Quality Maintenance**

It is strongly recommended that upon completion of the cleaning and resurfacing procedure of the HVAC that a CSBPI (bipolar ionization unit) be installed into the air handler to permanently ensure continued streaming air quality control following the above stabilization protocols. It is recommended that one (1) CS Mini 1200 unit be installed into each air handler to provide the necessary coverage.

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#### **Results:**

- 1-All microbial growth and odor sources/origins have been terminated.
- 2-All colonized microbial growth has been sealed and terminated.
- 2-All HVAC coils and duct linings have been cleaned with anti-microbial as well as resurfaced and sealed.
- 4-Lifetime warranty may be issued for all EP treated surfaces; and a two year warranty may be issued for HVAC treatment; and a three (3) year warranty may be issued for each CSBPI device. All warranties are transferable.

**For additional information or explanation of procedures contact [techsupport@cleansealep.com](mailto:techsupport@cleansealep.com)**

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