SURFACE PROTECTION GUIDE

by NewEraSOS 2020

Summary

NewEraSOS is introducing a revolutionary product to the antimicrobial battle on both hard and soft surfaces. PreventX 24/7™ and the family of products was created to keep a long-lasting barrier and create a foundation of protection up to 90 days after each application.

PreventX 24/7™ serves as a long-lasting defense against microorganisms, bacteria, mold, and mildew. The unique barrier technology is an EPA approved antimicrobial (EPA Reg. #91116-1) as it kills without poison and will not leach off treated surfaces or create super bugs.

PREVENTX™ 24/7

ANTIMICROBIAL SURFACE PROTECTANT

Customer Service

customerservice@newerasos.com

Antimicrobial Surface Protection

Typical disinfectants kill viruses and bacteria within 10 minutes, but once the product dries, there's no further protection. The cleaned surface is now ready to be re-contaminated. Imagine someone wiping and disinfecting a surface every time new microorganisms contaminate it or spread further.

PreventX 24/7™ is not a replacement for existing disinfecting protocols but serves as the secondary level of defense against microorganisms, bacteria, mold, and mildew. Our unique coating technology is an EPA approved bacteriostatic (EPA Reg #91116-1) as it kills without poison and will not leach off treated surfaces or create superbugs.

The first and foremost thing to remember about **PreventX 24/7™** is that by treating a surface, NewEraSOS in no way is making a public health claim. The EPA has not yet approved any registered antimcrobial for viral claims. **PreventX 24/7™** is an EPA registered antimicrobial, allowing for durable bacteriostatic, fungistatic, and algaestatic surface protection.

Highlighted benefits are:

Environmentally Friendly

Non-Toxic, non-poisonous microscopic electrostatically held on the surface "needles" puncture organisms using a physical kill, not a chemical kill, also means no superbugs.

Protective Barrier

The protective barrier reduces cross-contamination on high touch and at-risk surfaces.

Prevents Mold, Mildew, and other Microorganisms Growth on Surfaces

Biofilm cannot exist on a **PreventX 24/7™** treated surfaces; therefore, mold, mildew, and other microorganisms cannot thrive.

Long Lasting

PreventX 24/7™ provides a protective surface that is not destroyed by daily cleaning and lasts up to 90 days, depending on surface abrasion/use, with each simple application.

Sustainable & Healthy Surface Environment (benefits continued)

PreventX 24/7™ is the foundation strategy used to maintain a sustainable and healthy surface environment.

The role of **PreventX 24/7™** is to provide surface protection in-between regular cleanings and disinfecting.

- **PreventX 24/7™** is approved by the EPA for use on many surfaces, including many different hard surfaces, blankets, bedding, carpets, curtains, drapes, concrete, apparel, PPE, air filters, awnings; practically all surfaces except food contact surfaces.
- **PreventX 24/7™** provides long-lasting surface protection between cleanings and disinfecting.
- Advertise and promote to staff and customers the added measures being taken to reduce microorganisms on surfaces.
- Significant labor savings as future cleanings become easier since microorganisms cannot thrive on a surface treated with **PreventX 24/7™**.
- Significant material savings as articles will last longer since they are protected against deterioration effects of bacteria, mold, mildew, and other microorganisms.
- **PreventX 24/7™** does NOT adhere to itself, so you cannot overtreat a surface (product continues to search out an unused negative charged space to adhere to).
- Once **PreventX 24/7™** has dried on a surface, it covalently bonds to the surface.
- The mode of action of the built-in antimicrobial relies on the Technology remaining affixed to the surface at the same concentration even after antimicrobial activity.
- Once applied, it does not migrate or create a zone of inhibition, prohibiting an organism's adaptation and mutation.
- **PreventX 24/7™** is non-leaching, non-toxic, non-migrating, and is not consumed by organisms. (This applies to both hard and soft surfaces).
- **PreventX 24/7™** does not contain any heavy metals like tin, arsenic, silver, or copper.
- Studies show that since the barrier remains electrostatically bonded to the surface molecules, there is a low potential for irritational, toxicity, or other human exposure consequences.
- Studies on hospital blankets show that the Technology built into **PreventX 24/7™** provides three times more protection from bacteria than an untreated blanket.
- A double-blind study was done on laparotomy drapes, which showed a reduction of viable potential microorganisms in critical areas by over 81%.
- Studies show that the **PreventX 24/7™** does not have adverse effects on the skin.
- Studies show that fabrics treated with **PreventX 24/7™** reduce 99.9% of the target bacteria.
- ATP studies continue to show a significant reduction of microorganisms on surfaces between the surfaces treated with **PreventX 24/7™** and those left untreated.
- You will see and feel a much cleaner surface, which means a safer and protected surface from the first application.

PreventX 24/7™ serves as a residual surface protectant that is safe and long-lasting so that a healthy surface environment can be maintained before, during, and after surfaces are cleaned or disinfected.

Are Your Surfaces Protected?

Sanitizing and Disinfecting – Required but is it Enough?

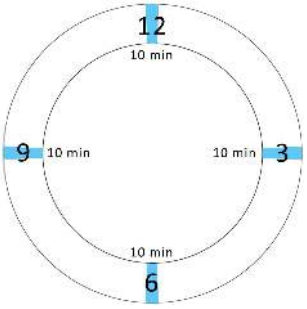
Surfaces treated with sanitizers and disinfectants are free of microorganisms for only the brief period of time from when your sanitizer/disinfectant is applied to when it dries.

Your surface is NOT protected between Sanitizing and Disinfecting cleaning events!

Surface cross-contamination occurs throughout the day and night everywhere through droplets, direct surface contact and airborne transmission.

Limited Surface Protection when you sanitize/disinfect 4 times daily

- Up to 40 minutes of Surface Protection
- Surfaces are protected 2.8% of the time in a 24-hour period
- **ARE YOUR SURFACES REALLY PROTECTED?**



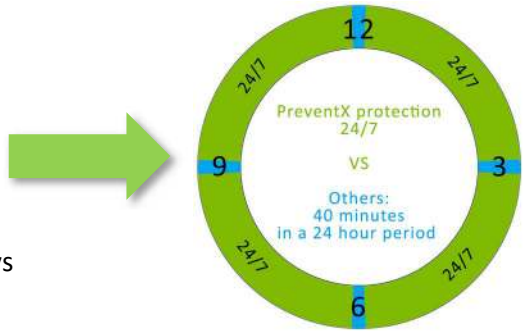
Surface Protection using PreventX 24/7™

Microorganisms cannot exist on a **PreventX 24/7™** treated surface and cannot thrive in-between sanitizing and disinfecting events ensuring maximum surface protection.

Surface cross-contamination, regardless of type, is significantly reduced everywhere **PreventX 24/7™** is used.

Extended Surface Protection Using PreventX 24/7™

- Surface Protection 24 hours 7 days a week
- One application protects surface up to 90 days
- Implement one of the **NewEraSOS** antimicrobial programs**,** and **MAXIMIZE SURFACE PROTECTION**
- Depending on friction or ultraviolet, can last up to 90 days
- Lasts up to 20 plus washes after treatment on fabrics
- Approved for use on:



Hard surfaces & fabrics air filters, awnings, building materials & components, blankets, bed linen, granite, stone, siding, bathroom, carpets, curtains, countertops, fabrics, walls, ceiling tile, concrete, flooring, footwear, ceramic, stainless, vinyl, porcelain, marble, aluminum, leather, mats, fire resistant coatings, plumbing fixtures, pillows, roofing materials, sand bags, tents, tarps, shoe insoles, socks, shower curtains, toweling, umbrella, upholstery, vacuum bags, Clothing, underwear, face masks, PPE.

Surface Protection Discussion

COVID-19 has been making headlines in both the national and international news, and NewEraSOS has been fielding calls regarding **PreventX 24/7™** and its use to protect surfaces in stricken areas.

There are a few facts that will help in the information process when discussing **PreventX 24/7™** to potential clients that are concerned about SARS-CoV-2.

All antimicrobials, including **PreventX 24/7™**, cannot make any claims against viruses and, furthermore, cannot mislead customers that they will be protected against viruses if their surfaces are treated.

Antimicrobials, bacteriostatics, and biostatic agents are synonymous and are surface protectants to protect surfaces against different microorganisms like bacteria, mold, mildew and algae.

There is no bacteriostatic in the United States that is registered with the EPA as being effective against SARS-CoV-2. The EPA and CDC are basing efficacy against COVID-19 by stating that a product should be able to kill the Coronavirus if it is effective against enveloped viruses. They also go a step further by saying that a product that is effective against non-enveloped viruses is preferred, as the non-enveloped viruses are harder to kill than enveloped viruses.

For over 20 years, studies and whitepapers have been performed on a DOW formulation (AEM 5700/5772) that demonstrate efficacy against many different microorganisms. The necessary raw materials, specialized generation equipment, and proprietary blending processes used for millions of dollars of this white paper testing by DOW are currently used for building **PreventX 24/7™**.

In order to be completely transparent and not mislead the public, **PreventX 24/7™**, or any bacteriostatic for that matter, are not approved by the EPA to make any virus claims. The EPA is currently in the process of performing evaluation tests on the compound in **PreventX 24/7™** and are considering different performance standards for testing against viruses. Visit www.epa.org for more information.

The compound in **PreventX 24/7™** is readily available which is bringing a lot of companies to the marketplace. The issue is that, although the compound is available, most companies do not have the necessary equipment and proprietary blending processes to create a product that is fully effective. Our group at NewEraSOS has the necessary equipment and proprietary blending processes.

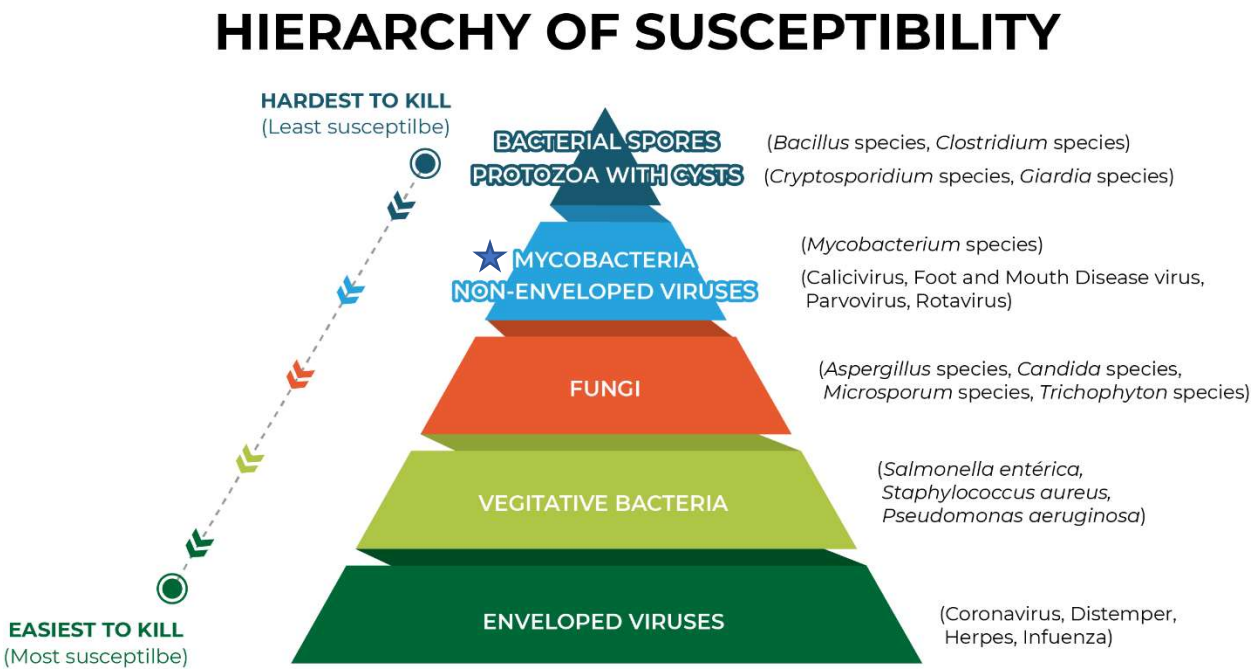
The CDC is clear that the public should use a registered disinfectant that is on List-N. This list can be found on the CDC website.

The benefit of our **PreventX 24/7™** product is that when used after a bleach application (or after other CDC approved disinfectants), surfaces will maintain a durable bacteriostatic, fungistatic and algaestatic surface.

It is important to note that we are not trying to distinguish ourselves as an alternative to bleach or other disinfectants. Based on its price and need for constant use in some areas, bleach is certainly a good application. But there are many areas that could also be treated with **PreventX 24/7™** to protect those surfaces either in-between bleach or other approved disinfectant applications.

Each customer has a choice as to how they elect to protect surfaces against different microorganisms. The use of disinfectants combined with **PreventX 24/7™** is a cost-effective solution especially when surfaces can not be disinfected each and every time there is potential for contamination.

Microorganism Susceptibility



★ DOW studies have confirmed efficacy against several microorganisms identified on the pyramid above. In specific, the study "New Antimicrobial Treatment for Carpet Applications" demonstrated the effectiveness of AEM5700 against mycobacterium tuberculosis and mycobacterium smegmatis along with several other microorganisms.

Dow Corning's AEM 5700 was eventually brought to market, by agreement, in Midland, MI (Dow's home office location) under the name Aegis Microbe Shield. The market strategy was to inject the SIQUAT into articles, e.g., carpets, countertops, socks, sponges. The blender of PreventX 24/7™ was selected by Aegis (over 20 years ago) to blend and help formulate specific application processes. Today, even though the original Aegis company dissipated, the blender used to build PreventX 24/7™ has grandfathered rights to purchase Dow's raw materials (AEM 5700 / 5772). The necessary raw materials, specialized generation equipment, and proprietary blending processes utilized for millions of dollars of white paper testing by DOW are currently used for building PreventX 24/7™.

The referenced study provides insight to the foundation laid by the different DOW white papers with regards to the use and effectiveness of the Technology built into PreventX 24/7™.

PREVENTX 24/7™ NOR ANY OTHER REGISTERED BACTERIOSTATIC IS APPROVED FOR CLAIMS AGAINST VIRUSES OR FOR PUBLIC HEALTH CLAIMS

For more information, please visit the CDC website: **https://www.cdc.gov/coronavirus/2019-ncov/**.

Overview and Benefits

Introducing **PreventX 24/7™ Antimicrobial Surface Protectant,** an all surface durable protective antimicrobial barrier that imparts biostatic activity to surfaces to protect the surface against odor-causing bacteria, mold, mildew, and algae reducing corporate liability, making future cleanings easier, while extending the life of your surfaces.

Top benefits of long-lasting antimicrobial surface protection:

- An affordable, fast, and convenient spray and wipe application that is available in concentrate up to 3X and in ready-to-use.
- Independent studies have shown the active ingredient in **PreventX 24/7™** to be effective against many different microorganisms, including bacteria, mold, mildew, and fungi.
- **PreventX 24/7™** is an EPA registered antimicrobial (EPA Reg. No. 91116-1).
- Typical disinfectants work while wet, but once the product dries, there is no further protection, and the treated surface is ready for re-contamination. **PreventX 24/7™** will continue to protect your surfaces against germs, mold, and mildew for 30 to 90 days, depending on surface use.
- Reduces ATP scores for added safety compliance.

- Microorganisms cannot thrive on a surface treated with **PreventX 24/7™**.
- **PreventX 24/7™** Provides a protective finish that bonds to the surface, not destroyed by normal daily cleaning.
- **PreventX 24/7™** provides continuous surface protection in between cleaning and disinfecting events.
- Microscopic "carbon spikes" penetrate the cells and destroy the organisms.
- **PreventX 24/7™** environmental green technology is non-toxic, non-leaching, non-hazardous, and will not promote the growth of superbugs.
- **PreventX 24/7™** is approved for fabrics and so much more.

Certificate of Analysis

Project: Food Borne Organisms

Project Number: Developmental

Description Samples treated with AEM5772	Microbiological Analysis [1] Percent Reduction Per Test Organism [3]				Chemical Analysis [2] Percent Extraction	Pass/Fail**
NAMSA Test Laboratory, Kennesaw, GA.						
	A	B	C	D		
Untreated	0	0	0	0	0%	Fail
Treated	99.9	99.9	99.9	99.8	86%	Pass

Red indicates highest level observed

1 ASTM E2149-01 "Dynamic Shake Flask"
1g sample
50 ml 0.3 mM KH_2PO_4
$1x10^5$ *bacteria* / ml
0.01% Q2-5211 wetting agent

2 Antimicrobial Barrier BPB Extraction (EXT):

1.0g sample weight 0.001% BPB
dH_2O solution 20 minute exposure
595nm Absorbance
0.01 % Q2-5211 Wetting Agent

3

A: *Escherichia coli* ATCC 8739
B: *Staphylococcus aureus* ATCC 6538
C: *Listeria moncytogenes* ATCC 7645
D: *Salmonella choleraesuis* ATCC 10708

This project has been reviewed and approved by:

Robert A. Monticello, Ph.D.
Laboratory Director
ÆGIS Laboratory Services

Certificate of Analysis
Antimicrobial Barrier

Test Method: ASTM E2149-01

Tested Against: Methicillin Resistant *Staphylococcus aureus* (MRSA)

This antibacterial test was performed to demonstrate the effectiveness of the Antimicrobial Barrier technology against Methicillin Resistant *Staphylococcus aureus* (MRSA) strain. Test Methods conform to ASTM E2149-01 guidelines (Standard Test Method for Determining the Antimicrobial Activity of Immobilized Antimicrobial Agents Under Dynamic Contact Conditions). Specific details of testing and materials are listed below in the table.

These data indicate that the fabric tested, commercially treated with the Antimicrobial Barrier Technology (AEM5772/5), reduces the total population of MRSA bacteria >99.99%. Untreated fabric samples tested in parallel demonstrated no effectiveness at reducing the total MRSA population. These results indicate the antimicrobial effectiveness of the sample treated with the Antimicrobial Technology against the resistant bacteria MRSA.

	MICROBIOLOGICAL ANALYSIS		
	Initial Concentration	**Final Concentration**	**Percent Reduction**
Untreated fabric sample	1.52×10^5 / ml	1.6×10^5 / ml	0%
Treated fabric sample	1.52×10^5 / ml	$< 1.0 \times 10^1$ / ml	>99.99%
Inoculum control	1.52×10^5 / ml	1.55×10^5 / ml	0%

ASTM E2149-01	
Standard Test Method for Determining the Antimicrobial Activity of Immobilized Antimicrobial Agents Under Dynamic Contact Conditions.	
Total Contact Time:	1 hour
Total Volume:	50 ml 0.3 mM KH_2PO_4 + 0.01% Q2-5211
Bacterial Strain:	Clinical Isolate Methicillian Resistant *Staphylococcus aureus* (MRSA)
Description of Sample Tested:	1g each fabric commercially treated and untreated with AEM5772/5

Certified by: Robert A. Monticello, Ph.D.

Robert A. Monticello, Ph.D.

For questions or additional information regarding this Certificate of Analysis, please contact us.

PreventX 24/7™ vs "water based"

In the late 1990s and early 2000s, an effort was made to create a product that could compete with the efficacy of **PreventX 24/7™** Antimicrobial. Several attempts were made, and a formula was discovered that simplified the production by removing the required methanol. Over the years, several companies have tried to compete in the marketplace by advertising this methanol free version of the quaternary silane, but most often quickly fail when they discover that the efficacy of the product fails to meet the objective of providing a stable product to clients, that has long term residual effect on a surface.

The long-term chemical stability of **PreventX 24/7™** active antimicrobial, 3-(trihydroxysilyl) propyldimethyloctadecyl ammonium chloride, is due to the initial manufacturing of the molecule in methanol. The chemical structure of the active antimicrobial molecule is:

$(MeO)_3\ Si\ (CH_2)_3\ N+$
$C_{18}\ H$
$_{37}Cl^-$
Me_2

This product, when placed in water, quickly reacts to form a highly reactive intermediate, as shown below:

Hydrolysis

(MeO)3 Si (CH2)3 N+ C18 H37 Cl- + H20 - (HO)3 Si (CH2)3 N• C18 H37 Cl- + MeOH Me2 Me2

As long as the methanol content is present, an equilibrium remains in place delaying the start of bonding to itself or other reaction sites. After contact with a substrate, the following reaction, in which the antimicrobial forms a permanent covalent bond with itself and/or available reaction sites on the substrate, becomes dominant. The reaction is driven by drying.

Condensation

$$^{O_{1/2}}(HO)_3Si\ CH_2CH_2\ CH_2\ N\bullet\ C_{18}\ H_{37}.\ Cl^- \rightarrow (O_{1/2} \text{—} Si\ CH_2\ CH_2\ CH_2\ N\bullet\ C_{18}\ H_{37})xCl^-\ Me_2\ O_{1/2}$$
Me2

The initial association to the substrate is probably made through the attraction of the positively charged cation to surfaces that exhibit a negative character in the aqueous media.

When the active antimicrobial is made from an aqueous phase (water-based) formula rather than methanol, there is immediate self-polymerization from the monomer to a long-chain polymer of the active antimicrobial, resulting in fewer reaction sites both to bond and attack microbes. **This means that there is less activity of the formula, as it has begun to bond to itself. Over a short amount of time, all of the active material will polymerize to itself**. The three bonds of the methanol formula occur over a time, from immediately (once dried) for the first site and up to 29 days for the final bonding. During this time, a rotation is occurring (the positively charged Nitrogen atoms and the octadecyl chains are constantly rotating in space) that allows for a uniform layer of antimicrobial protection. Again, the water-based product will not have this needed rotation. On direct contact with a microorganism, the Technology works by disrupting (or rupturing) the cell membrane. This interrupts the normal life processes and destroys the cell. Two forces cause the interruption: the quanternized Nitrogen acts as an electrocuting charge, and the 18 carbon link chain acts as a sword. This structure is ideal for taking advantage of the anionic nature and the lipoprotein composition of microbial membranes. Since this antimicrobial acts only on the membrane and does not lose strength over time, it does not create the conditions which allow microorganisms to adapt to its presence or develop resistance.

Partial List of Pathogens Destroyed or Inactivated by

3-(trihydroxysilyl) propyldimethyloctadecyl ammonium chloride

Gram Positive Bacteria

Bacillus sp.
Bacillus subtilis
Clostridium difficile (veg. cell)
Corynebacterium diphtheria
Enterococcus sp. (incl. VRE)
Micrococcus sp.
Mycobacterium Tuberculosis
Mycobacterium smegmatis
Propionibacterium acnes
Staphylococcus aureus
Staphylococcus aureus (MRSA)
Staphylococcus epidermis
Streptococcus faecalis
Streptococcus mutans
Streptococcus pneumonia
Streptococcus pyogenes

Gram Negative Bacteria

Actinetobacter aerogenes
Actinetobacter calcoaceticus
Aerobacter aerogenes
Aeromonas hydrophilia
Citrobacter deversus
Citrobacter freundi
Enterobacte aerogenes
Enterbacter aglomerans
Enterobacter cloacae
Enterococcus sp.
coli
Klebsiella oxytoca
Klebsiella pneumoniae
Klebsiella terriena
Legionella pneumophila
Morganeella morganii
Mycobacterium tuberculosis
Proteus mirabilis
Proteus vulgaris
Pseudomonas aeruginosa
Pseudomonas fluorscens
Psuedomonas pulida
Salmonella cholera suis
Salmonella typhimunium
Salmonella typhosa
Serratia liquifaciens
Serratia marcescens
Treponema hyodysenteriae
Xanthomonas campestris

Viruses (EPA has not approved bacteriostatics for viral claims)

Adenovirus Type II & IV
Bovine Adenovirus Type I & IV
Feline pneumonitis
Herpes simplex Type I
Herpes simplex Type II
HIV1
Influenza A2 (Aichi)
Influenza A2 (Asian)
Influenza B
Mumps
Parainfluenza (Sendai)
Rous sarcoma
Reovirus Type I
Simian Virus 40
Vaccinia
MS2
PRD1
Norovirus

Fungi, Algae, Mold, Yeast, Spores

Alterania alternate
Aphanizomenon sp.
Aspergillus flares
Aspergillus flavus
Aspergillus niger
Aspergillus sydowii
Aspergillus terreus
Aspergillus versicolor
Aspergillus verrucari
Anabaena cylindrica
Aureobasidium pullans
Candida albicans
Candida pseudotropocalis
Cephaldascus fragans
Chaetomium globsum
Chlorophyta protococcus
Chlorophyta selenastrum
Chlorophyta sp.
Chrysophta sp.
Chlorella vulgaris
Cladopsorium cladosporioides
Cyanophyta anabaena
Cyanophyta oscillatoria
Cyanophyta (bluegreen) sp.
Dreschslera australiensis
Epidermophytan sp.
Gliomastix Cerealis Escherichia
Gloephyllum trabeum
Gonium sp.

Fungi, Algae, Mold, Yeast, Spores cont.

Microsporium sp.
Microsporium audouinii
Monilia grisea
Oscillatoria sp.
Penicillium chrysogenum
Penicillium commune
Penicillium funiculosum
Penicillium pinophillium
Penicillium variable
Phoma fimeti
Pithomyces chartarum
Poria placenta
Pullularia pullans
Scenedesmus
Saccharonyces cerevisiac
Scolecobasidium humicola
Selenastrum gracile
Selenastrum sp.
Trichoderma viride
Trichophyton interdigital
Trichophyton maidson
Trichophyton mentagrophytes
Trichophyton sp.

Protozoa Parasites

Cryptosporidium parvum

DISCLAIMER

ALL OF THE ABOVE ORGANISMS HAVE BEEN LABORATORY TESTED USING THE ACTIVE INGREDIENT. THE LABORATORY RESULTS ARE NOT MEANT TO IMPLY OR ESTABLISH THAT THE USER IS PROTECTED FROM THESE ORGANISMS. ONLY THE APPLIED SURFACE AND NOT THE USER CAN BE PROTECTED. IT IS ALSO IMPORTANT TO NOTE THAT ACTUAL FIELD RESULTS CAN VARY AND THAT THE RESULTS COULD CHANGE IN DIFFERENT TEST CONDITIONS.

EPA HAS NOT APPROVED PREVENTX 24/7™ FOR CLAIMS AGAINST VIRUSES.

Frequently Asked Questions

What is dwell time when using a mister?

Since **PreventX 24/7™** is an antimicrobial, once it has dried and bonded to the surface, it remains active. Biocides (disinfectants) need to stay wet for a period of time (dwell time) to do what it claims.

What surfaces can PreventX 24/7™ be applied?

PreventX 24/7™ can be used as a surface protectant on multiple surfaces such as doorknobs and handles, gloves, cabinetry, and surfaces subject to odor-producing bacteria, mold, mildew, and algae; showers, countertops, fixtures, grout/tile, carpets, equipment, walls, etc.

How does the PreventX 24/7™ technology work?

PreventX 24/7™ forms a colorless, odorless, positively charged polymer that molecularly bonds to the treated surface. You could think of it as a layer of electrically charged swords. When a microorganism comes in contact with the treated surface, the C-18 molecular sword punctures the cell membrane, and the electrical charge shocks the cell. Since nothing is transferred to the now dead cell, the antimicrobial doesn't lose strength, and the sword is ready for the next cell to contact it.

How do I know if the surface treatment is working?

Similar to disinfectants, you rely on the studies, test data, and registration of the products. We often tell customers to take a location that they've had difficulty keeping clean (showers, high humidity areas, bathrooms, etc.) Use **PreventX 24/7™** regularly, and you will notice a cleaner surface environment that is easier to maintain and keep clean.

What is the purpose of the silane portion of the molecule?

Silanes are extremely efficient bonding agents that can be coupled to other molecules and then used to permanently bond those molecules to a target surface. **PreventX 24/7™** modifies virtually any surface and transforms it into a material that will not support microbial growth.

How long do you have to wait before entering a room after treatment?

Surfaces are ready for use once **PreventX 24/7™** has dried on the surface. The drying time is based on the ambient environment; you should anticipate anywhere from 5 minutes to 30 minutes. Fabrics will take longer to dry. If using a fine-mist spray applicator, droplets will reach the surface relatively quickly, so any lingering "fog" or "mist" should be minimal upon entry into a room or facility after drying time.

Difference between PreventX 24/7™ and other antimicrobials?

The necessary raw materials, specialized generation equipment, and proprietary blending processes utilized for millions of dollars of white paper testing by DOW are currently used for building **PreventX 24/7™**. We feel this is a tremendous asset to our client base.

Against what types of bacteria is PreventX 24/7™ effective?

PreventX 24/7™ has a mode of action that involves a positive charge and is effective against all bacteria, plus fungus, algae, and mold. A representative list of microorganisms against which the **PreventX 24/7™** technology has been tested may be obtained by contacting our corporate office.

Do you need a license or certification if your offering the treatment of surfaces with PreventX 24/7™ as a service to your customer?

Individual states vary, you will have to verify with the state where the service is provided. Visit https://www.epa.gov/pesticide-worker-safety/federal-certification-standards-pesticide-applicators for more information.

Does the biostatic use a heavy metal?

No. **PreventX 24/7™** does NOT contain any heavy metals. Tin, arsenic, silver, and copper are often used in other antimicrobials.

How long does the treatment last?

It is recommended to re-apply every 30 to 90 days. Independent studies show that treatments can last much longer on the surface, but the use of the surface and the abrasion on the surface will ultimately remove the finish protection. Since **PreventX 24/7™** physically becomes part of the surface, the actual surface that it is bonded to must be removed to remove the surface protectant. We set guidelines at 30 days for high-touch point surfaces and 90 days for surfaces that don't experience too much surface abrasion. Ultimately, the customer will decide, based on many factors, including budget, how often to re-apply.

Can PreventX 24/7™ be used on plexiglass?

Yes. It is recommended to always wipe/buff the surface after treatment. The plexiglass will be protected and become more scratch-resistant and moderately hydrophobic.

Will PreventX 24/7™ kill SARS-CoV-2?

There is no bacteriostatic or antimicrobial registered by the EPA that can claim anything but protection of surfaces or articles from odor-causing bacteria, mold, mildew, and algae. Over the last 30 years, independent testing and studies have been performed on the formulation used to build **PreventX 24/7™** that shows effectiveness against a wide array of microorganisms, including gram-positive/negative bacteria, enveloped/non-enveloped **viruses**, mold, mildew, and algae. These studies are not meant to mislead customers that using an antimicrobial is approved by the EPA for viral claims or that it should be used as a replacement for disinfecting protocols. The studies are provided to demonstrate the effectiveness of the technology. This is why we promote the use of both disinfectants and antimicrobials for optimal surface protection.

Can PreventX 24/7™ be used on food-contact surfaces?

No. FDA defines these surfaces as surfaces where human food contacts the surface during normal operations such as utensils, pot-stocks, slicers and cutting boards. These represent less than 1% of the surfaces in a restaurant and are typically disinfected after each use. All other areas of the restaurant can be treated with **PreventX 24/7™**. (tables, chairs, counters, bars, walls, S&P shakers, menus, etc.)

Can PreventX 24/7™ be used on glass?

If desired to use on glass surfaces, dilute the **PreventX 24/7™** 1:2 (1RTU: 2Water). The glass will be protected and become more scratch-resistant and moderately hydrophobic.

How long after applying PreventX 24/7™ can you clean or disinfect the surface?

We recommend a minimum of 2 hours before cleaning or disinfecting a surface.

Can PreventX 24/7™ be used in a carpet machine?

Yes. Make sure the unit is pre-cleaned with VERY GOOD RINSING WATER ONLY.

Why is PreventX 24/7™ so durable?

Because of their exceptional chemical bond (a covalent bond), the bonded polymer is neither soluble nor volatile. The unique bond results in the **PreventX 24/7™** polymer becoming an integral part of the substrate.

What is the shelf life of PreventX 24/7™I?

We guarantee the product for two years after the manufacturing date.

Is PreventX 24/7™ permeable to moisture?

Yes, moisture that is in or on the treated material/surface passes through the treatment. After curing, the treatment is somewhat hydrophobic (water repellent), but it should not be considered to be a replacement for commercial water repellents.

Will its use result in "super bacteria"?

No. Adaptation studies show that microbes do not adapt to **PreventX 24/7™** and no 'Zone of Inhibition' develops.

What studies are available on the technology built into PreventX 24/7™?

- Over 30 years of different whitepapers
- Surface Kinetic Test Method for Determining the Rate of Kill by an Antimicrobial Solid
- Evalution of Effects on Elevated Levels of Normal Skin Bacterial Flora with Fabrics
- After the Flood: Aeromicrobial Control in an Extensively Damaged Hospital
- Reducing Microbial Contamination in Hospital Blankets
- Sustained Aeromicrobiological Reductions Utilizing Silane-modified quaternary amines
- Antiviral Activity of a Surface-bonded Quaternary Ammonium Chloride
- Improved Control of Microbial Exposure Hazards in Hospitals: A 30-Month Field Study
- Fungal Remediation and Protecting Antimicrobial Treatment of a Ten Story Grossly Contaminated Hospital
- **PreventX 24/7™** durable antimicrobial finish theoretical, laboratory & field experience durability & antimicrobial efficacy: A healthcare perspective
- Reference List of Pathogens Destroyed or Inactivated by 3-(trihydroxysilyl) propyldimethyloctadecyl ammonium chloride
- Please ask your NewEraSOS representative for a complete list of available studies

What disinfectant can be used before the application of PreventX 24/7™?

All quat disinfectants are acceptable as they are cationic. Bleach, hydrogen peroxide, and peracetic acid products are acceptable. If you are not using a quat as a disinfectant, check to see if there are added surfactants (alkyl sulfates, ethoxylated aliphatic alcohol, polyoxyethylene, betaines, amphoacetates). If not sure, you can always wipe with a microfiber cloth before **PreventX 24/7™** treatment.

PreventX 24/7™ Label

STORAGE AND DISPOSAL
Do not contaminate water, food, or feed by storage and disposal.
STORAGE: Store in original, tightly closed container in an area inaccessible to children or persons unfamiliar with its use. Keep tightly closed until ready to use. Reclose tightly after each use. When, stored in original, unopened containers at or below 25°C (77°F), PreventX 24/7 Antimicrobial has a minimum shelf life of 12 months from date of shipment.
PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.
CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Triple rinse as follows. Fill container ¼ full with water and recap. Shake for 10 seconds. Drain for 10 seconds after the flow begins to drip. Follow Pesticide Disposal instructions for rinsate disposal. Offer for recycling if available or dispose of in trash in a sanitary landfill or by incineration.

SDS INFORMATION: READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET CAN BE OBTAINED BY WRITING TO JennsCo, LLC OR ON THE WEB AT www.jennsco.com.

NOTICE: JennsCo, LLC warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated in the labeling when used in accordance with directions under normal conditions of use; but this warranty of fitness for a particular purpose does not extend to the use of this product contrary to written instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use. JennsCo, LLC SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING THE WARRANTY OF MERCHANTABILITY.

ENVIRONMENTAL HAZARDS:
This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA De-activation may be required during clean up if a spill occurs. De-activation of PreventX 24/7 Antimicrobial can be achieved by the addition of an anionic surfactant or detergent (such as soap, sulfones, or sulfates) in quantity equivalent to that of the active ingredient.

PREVENTX™ 24/7

ANTIMICROBIAL SURFACE PROTECTANT

ACTIVE INGREDIENTS:
3 (trihydroxysilyl)propyldimethyl octadecyl ammonium 0.84%
INERT INGREDIENTS: 99.16%
TOTAL 100%

KEEP OUT OF REACH OF CHILDREN

Warning
May cause eye irritation

PreventX 24/7 Antimicrobial imparts durable biostatic activity to the surface of a wide variety of substrates. PreventX 24/7 Antimicrobial is effective against mold, mildew and algae as a static agent.

- Increased efficiency through proper application, durable bacteriostatic, fungistatic and algaestatic surfaces can be attained with a minimum amount of PreventX 24/7 Antimicrobial.
- Provides freshness and combats deterioration and discoloration caused by bacteria, fungi and algae.
- Cleans and protects surfaces from odor causing bacteria and discoloration or staining.
- Antimicrobial surface protectant against odor causing bacteria and discoloration or staining.
- Long Lasting – Reapplication recommended every 30 days*

EPA REG No. 91118-1 EPA EST No. 68428-SC-001 5 Gallon (640 FLOZ)

DIRECTIONS FOR USE
IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING FOR INDUSTRIAL/INSTITUTIONAL/RESIDENTIAL/COMMERCIAL USE
APPROVED USES: PreventX 24/7 Antimicrobial can be used as a final bacteriostatic finish on the following items to impart bacteriostatic/fungistatic (mold and mildew) activity: Carpet, Draperies, Upholstery, Furniture, Book Covers, and Pictures, Interior Non-Food Contact Hard Surfaces: Floors and Floor Coverings, Walls and Wall Coverings, Ceramic Tile, Concrete, Chrome, Stainless Steel, Sealed Fiberglass, Vinyl, Porcelain, Wood and Glass Fixtures, Marble, Aluminum Dry treated areas and articles such as clothing before use. Remove children and pets from treated area until completely dry. Clean surfaces prior to application. PreventX 24/7 Antimicrobial is to be applied to organic and inorganic surfaces as supplied by brushing, dipping, padding, soaking, or spraying until adequately wet, or applying by foaming techniques. After applying treatment, the surface should be allowed to dry at temperatures from ambient to a maximum of 160°C (320°F) to effect complete condensation of silanol groups and to remove water, solvents and/or traces of methanol from hydrolysis.

For Pump Spray Application: Using pump sprayer, apply the product 4-6 inches from the surface making sure the surface is completely covered. Remove excess product with a paper towel or lint free cloth. Allow surface to air dry. Reapply another coat, if desired. If spotting occurs especially on glass or mirrored surfaces, wipe with lint free cloth. Test for staining and colorfastness of fabrics and carpets by treating and drying a small concealed area prior to application.

For Commercial Spray Application: For commercial application equipment (i.e. carpet/upholstery steamers, rotary jet extraction cleaners, pressure sprayers), apply and then let, stand until dry or let stand 3 minutes and wipe dry with cloth or sponge. If spotting occurs, wipe with moist cloth or sponge. Test for staining and colorfastness of fabrics and carpets by treating and drying a small, concealed area prior to application. When treating coarser substrates, more PreventX 24/7 Antimicrobial may be required due to absorption. Dry carpet areas and surfaces before re- entry and dry articles before use.

For each application, determine optimum application and drying conditions, such as time and temperature before use. *If necessary, reapply PreventX 24/7 Antimicrobial every three months.

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