

PERSISTENT, CONTINUOUS, CLEAN

BIOPROTECT RTU for Food Contact Surfaces

BIOPROTECT™ RTU is a water based, antimicrobial shield that adds a layer of protection, preserving and continuously protecting finished food contact surfaces.



BIOPROTECT™ RTU helps keep surfaces clean between regular cleanings.

BIOPROTECT™ RTU can be used on appliances, equipment and utensils used in preparing and processing of food products for human and animal consumption.



**Full list of approved uses and claims can be provided upon request



BIOPROTECT™ RTU can be used on food preparation surfaces including (but not limited to):

- Cookware made from any material
- Countertops and cutting boards
- Food wrap including aluminum foil, plastic wrap, coated deli paper and plastic trays
- Collection and storage equipment
- Storage containers of any material
- Industrial prep and processing equipment/machinery
- Paper products such as wipes, tissues, wall coverings, towels and more
- Sinks and other vessels used for cleaning and transporting food and beverage products
- Carbon water filters and other drinking water filter media

For more information contact:
ViaClean Technologies, LLC
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www.bioprotect.us
(877) 447-5956

PERSISTENT, CONTINUOUS, CLEAN



BIOPROTECT RTU

BIOPROTECT™ RTU is an EPA registered, water-based, antimicrobial technology that provides persistent and continuous protection. BIOPROTECT™ RTU is a preservative antimicrobial shield that can be applied to both porous and non-porous surfaces to inhibit the growth of odor causing, and stain causing bacteria.

- **Safe water-based formula is non-flammable**
- **Provides persistent, continuous, antimicrobial protection against a broad range of microbes**
- **Non-leaching and non-migrating**
- **Prevents the mutation of adaptive microorganisms**
- **Colorless and odorless**
- **Patented, EPA registered technology**

BIOPROTECT™ RTU's patented antimicrobial technology uses self assembling monolayers to create a field of nanospikes that mechanically kill microbes (bacteria, molds, viruses) by piercing and rupturing their cell membrane. This kill method prevents microbes from mutating and adapting inhibiting the ability for superbugs to grow.

- **Bound Technology** - unlike conventional disinfectants, poisons, phenols or heavy metals, BIOPROTECT™ RTU performs while bound to the applied surface.
- **Residual Efficacy** - Unlike other antimicrobials, BIOPROTECT™ RTU's efficacy remains for a long period of time and protects surfaces between cleanings.
- **Food Contact Surface Preservative**- BIOPROTECT™ RTU is approved for use as an antimicrobial preservative under EPA and FDA regulations to preserve food contact articles.

- **Large Spectrum Efficacy**-Effective against a Broad Spectrum of Microbes.
- **Unmatched Versatility**- BIOPROTECT™ RTU can be applied on almost any surface (both porous and non-porous). A covalent bond forms with the applied surface to ensure durability in multiple environments including water, solvents and chemicals. May be mixed with compatible products.
- **Water Based Formula**-BIOPROTECT™ RTU is a completely water-based formulation. It is easily used by field personnel using a basic spray bottle, or a high fogging system.
- **Unrivaled Safety Profile**-BIOPROTECT™ RTU uses ZERO Triclosan, heavy metals, arsenic, titanium, phenols or poisons.
- There is no known or anticipated risk for microbes to mutate to a SuperBug. This is due to the bound technology of BIOPROTECT™. Other technologies work by "uploading" into the microorganism resulting sometimes in a mutation of the original microorganism.

BIOPROTECT™ RTU vs. Leading Antimicrobial Technologies

	BIOPROTECT™ RTU	Triclosan	Silver	Copper
Effective antimicrobial technology	✓	✓	✓	✓
Non Leaching technology	✓			
Does NOT use poisons to kill microbes	✓			
Does NOT promote adaptive organisms	✓			
Safe for humans, pets & the environment	✓	Banned by the FDA in 2016		
Affordable	✓	✓		

HOSPITAL DISINFECTANT

ONE PRODUCT. A MULTITUDE OF USES

SmartTouch Disinfectant is an EPA registered hospital grade cleaner. Utilizing a unique chemical formulation that includes natural elements, SmartTouch Disinfectant spreads and penetrates both hard and porous surfaces. Ready to use (No Mixing Required), it has been field tested and shown to eliminate a broad range of viruses and bacteria including superbugs like MRSA and H1N1. With no harmful byproducts, just spray, wipe or fog directly from the bottle. It is non-irritating to the skin and non-corrosive to surfaces.

EPA
REGISTERED

Field Tested
For Use On:



- Hospitals
- Health Care Facilities



- Laboratories
- Classrooms



- Restaurants
- Cafeterias
- Cruise Ships
- Institutions
- Offices



- 1 EPA Registered Hospital Disinfectant**
Proven to kill a wide range of viruses and bacteria SmartTouch Sanitizing Disinfectant won't contribute to the formation of mutating "super bugs" and does not contain volatile organic compounds (VOC's).
- 2 Food Contact Sanitizer-No Rinse Required NSF Registered (D2) Sanitizer**
99.999% Sanitization on food contact surfaces. SmartTouch Sanitizing Disinfectant is odorless and won't alter the taste of food on sanitized surfaces. SmartTouch kills 99.999% of bacteria including eColi, Salmonella and Listeria in less than 60 seconds.
- 3 Mold & Mildew Killer**
Kills Mold and Mold spores. Safe on a wide range of surfaces, marble to carpeting and beyond.
- 4 Allergen Eliminator**
Proven effective on pet dander as well as dustmite and cockroach allergens. Can be used directly on pet bedding & sleeping areas.
- 5 Odor Eliminator**
End malodors caused by bacteria, rotting trash, sewer systems, urine & more. SmartTouch Sanitizing Disinfectant contains no masking agents or fragrances and is highly effective at destroying urine & fecal odors.

HOSPITAL DISINFECTANT



Available in

**1 Gallon Bottles
4 Bottles/Case**

EXCEPTIONAL PERFORMANCE

Economical & Easy to Dilute

SmartTouch Disinfectant has 3 dilution ratios:

- ✓ Full Strength- For Hospital Disinfectant- Heavy Duty Mold and Mildew Killer.
- 5:1 - For Carpet and fabric Sanitation
- ✓ SmartTouch Disinfectant is compatible with most synthetic carpeting and commercial cleaning machines.
- ✓ 9:1- For 99.999% Sanitization on Food Contact Surface with No Rinse Required

**30 Second kill time on E. Coli & Staphylococcus Aureus.
Great for daily use**

SAFE, EFFECTIVE & LONG-LASTING

- NSF rated (D-2) No Rinse Required on Food Contact Surfaces at full strength.
- Hypo allergenic - Allergen reducing formula.
- pH balanced at 7.5
- Non-irritating to skin no glove required.
- Shelf Stable- Over One year Shelf Life
- No Special Shipping/Handling Instructions.
- No offensive odor.
- Non-Corrosive safe on treated articles like carpeting, fabrics, natural stones, plastics.

E.P.A. Registered

Distributed by:

SmartTouch Disinfectant

PRODUCT DESCRIPTION

An EPA registered hospital grade disinfectant. Utilizing a unique chemical formulation that includes natural elements, SmartTouch Disinfectant spreads and penetrates both hard and porous surfaces. Ready to use (No Mixing Required), it has been field tested and shown to eliminate a broad range of viruses and bacteria including superbugs like MRSA and H1N1. With no harmful byproducts, just spray, wipe or fog directly from the bottle. It is non-irritating to the skin and non-corrosive to surfaces.

PRODUCT PROPERTIES

Appearance: Colorless

Physical State: Liquid

Odor: Mild-Fresh

pH: 8 - 9

Boiling Point (°F): 212

Solubility in Water: 100%

Freezing Point (°F): 32

Vapor Pressure (mm Hg): Not Available

Volatile Organic Compounds (VOC): None

Evaporation Rate: Less than Ether

Specific Gravity: 1.003 @ 68°F (20°C)

Density (lb/gal): 8.40 @ 68°F (20°C)

APPLICATION & USE

Areas of Use Include: Homes, vehicles, schools & daycare, gyms & locker rooms, sports gear, hospitals, nursing homes, laundry rooms, veterinary, pharmacies, ambulances, barber shops, laboratories, restaurants, boats, ships, federally inspected meat & poultry processing plants, farms, animal pens and poultry houses, egg processing premises, hatcheries, swine premise sanitation, refrigerated storage units (empty & disconnected), airplanes, trains, trucks, buses & automobiles. Use as a mold & mildewstat on hard non-porous surfaces such as tile, and porous surfaces such as fabric.

Application Instructions:

Pre-Cleaning Instructions: Remove gross filth and heavy soil by cleaning. Spray SmartTouch straight onto soils, scrub and wipe clean with a dry paper towel or cloth. For cleaning odors add one cup SmartTouch per gallon of water in bucket and clean with sponge, mop or pad.

To Disinfect Hard Non-porous Surfaces: For disinfecting pre-cleaned hard non-porous surfaces such as glass, plastic, painted wood, laminate, chrome, stainless steel, polyurethane coated hardwood floors, glazed ceramic tile, sealed concrete & linoleum floors. Types of items include: Exterior of appliances, bed frames, cabinet handles, wheelchairs, child car seats, counters, cribs, doorknobs, tables, tubs, exterior toilet surfaces, faucet handles, handrails, jungle gyms, keyboards, light switch covers, patio furniture, showers, sinks, stovetops, telephones, toys, walls, waste containers. Apply product undiluted full strength to pre-cleaned hard non-porous surfaces, wetting thoroughly with spray, sponge, mop, or by immersion in solution. Allow surfaces to remain wet for 5 minutes for virus inactivation – 10 minutes for bacteria disinfection. For immersion, replace solution daily, or more frequently if it becomes significantly soiled or diluted Fogging and Misting: product can be applied by fogging or misting to disinfect hard, nonporous surfaces. Apply by fogging or misting until surface is moist using equipment manufacturer's directions for use. Remove or carefully protect all food and food packaging materials prior to treatment. Vacate treatment area and do not reenter treated area until air

is clear (minimum 20 minutes to reentry). For disinfection by ULV misting machine application, see the product Supplemental Bulletin specific for equipment to be used.

Fogging and Misting: SmartTouch can be applied by fogging or misting to disinfect hard, nonporous surfaces as an adjunct to regular manual cleaning and disinfecting. SmartTouch is recommended for use in fogging operations as a supplemental measure either before or after regular cleaning and disinfecting procedures. Apply by fogging or misting until surface is moist using equipment manufacturers directions for use. Remove or carefully protect all food and food packaging materials prior to treatment. Vacate treatment area and do not reenter treated area until air is clear (minimum 20 minutes to reentry).

To Prevent Mold or Mildew on Floors, Walls, Ceilings & Fabric: Remove as much surface dirt, mold, or mildew as possible by cleaning. Then spray on SmartTouch from a distance of 12 inches until visibly wet and let air dry.

To Deodorize: SmartTouch works by oxidation, not by masking of odors. When fogging apply 1 quart per 2000 cubic ft. following fogger manufacturer's directions for use. SmartTouch must come into contact with the cause of the odor to be effective. For pet urine stains in carpet, blot urine as dry as possible then saturate stain with SmartTouch through carpet pad.

To Sanitize Food Contact Surfaces: Staphylococcus aureus (ATCC 6538) and Escherichia coli (ATCC11229) 99.999% sanitization of food contact surfaces. Mix 1 part SmartTouch to 9 parts tap water. For glassware, utensils, cookware, and dishware: Scrape and pre-wash, then wash with a good detergent. Rinse with potable water, then sanitize by immersion in SmartTouch for 1 minute (or longer if specified by government sanitary code) Place on a rack or drain board to air dry. Do not rinse or wipe. Food Contact Immobile Surfaces: (food processing equipment, countertops, tables, appliances) Remove all gross food particles and soil by cleaning and rinse with potable water. Apply SmartTouch by wetting thoroughly and

To Sanitize Carpet: For synthetic carpet fibers such as nylon, olefin, or polypropylene – not intended for use on wool carpets. Test for color fastness in an inconspicuous area. Carpet should be clean or free of excessive soil before applying. Mix 1 part SmartTouch to 5 parts water. Or use full strength. Apply at a rate of 2.5 oz per sq. ft. SmartTouch must come into contact with contaminate to work. Allow to dwell for 10 minutes. Do not rinse, use an extraction wand and dry stroke carpet to remove excess moisture. Carpet can air dry or fans may be used if carpet needs to dry faster.

HEALTH & SAFETY

Refer to Safety Data Sheet (SDS) for full Health and Safety Details.

HANDLING & STORAGE

Handling: Keep away from heat and strong acids. Do not ingest. Keep container closed. Use only with adequate ventilation.

Storage: Keep container tightly closed and sealed until ready for use. Keep container in a well-ventilated place. Do not store above 120°F or near fire or open flame. Store large quantities in buildings to comply with OSHA 1910.106. Do not transfer contents to bottles or other unlabeled containers. Do not reuse empty containers. Keep out of reach of children.

Incompatible materials: Strong acids

Special Packaging Materials: None

DISPOSAL INSTRUCTIONS

Container Disposal: Rinse and offer empty container for recycling. If recycling is not available discard container in trash. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Discard excess or used SmartTouch solution in drain with running water.

Waste Disposal: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial and Local regulations.

DATE	NAME	LABORATORY	TEST METHOD	REPORT #	PRODUCT TESTED	ORGANISM TESTED	RESULTS
11/8/2018	BP Testing on OS Medical Curtains	Sporometrics Inc 219 Durbin St #202 Toronto, ON M6K 1Y9 Canada Ph: 416-516-1880	ASTM E2149	31212	-Archlex Rx8001 (100% Treated) + BIOPROTECT 500 -Maharam S11459 004 Breeze (100% Polyester) + BIOPROTECT 500 -CS Isolation Curtain, Royal Blue (100% Polypropylene) + BIOPROTECT 500	<i>Staphylococcus aureus</i> <i>Enterococcus</i> <i>Pseudomonas aeruginosa</i>	Treatment of the three fabrics with Bioprotect 500 was effective medicially relevant pathogenic microorganisms when compared activity was consistent. 1, 3 and 6 weeks after application. The Bioprotect 500 Exhaust treated (1%) microfiber cloth wash 24 hours had a Kill rate of 99.89% which is 'Excellent' Antimicrobial Activity of 4.00 in the 4 hour shaker test against <i>Staphylococcus aureus</i> . The L420 Exhaust treated (4%) microfiber cloth had a Kill rate in the 4 hour shaker test against <i>Staphylococcus aureus</i> . The Bioprotect 500 Exhaust treated (1%) microfiber cloth washed 24 hours had a Kill rate of 99.89% which is 'Good' Antimicrobial Activity of 2.95 in the 4 hour shaker test against <i>Escherichia coli</i> .
6/13/2018	BP vs. S. Aureus on Unfr Microfiber cloth	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-8103	ASTM E2149 - 2013	1809363	L420 Exhaust treated (4%) Bioprotect 500 Exhaust treated (1%) Washed 24 hours	<i>Staphylococcus Aureus</i> (ATCC #6539)	Three out of three treated materials registered a 4.10 log reduction or higher post 24 hours against Staph on BP and L420 treated textiles.
6/13/2018	BP vs. E. Coli on Unfr Microfiber Cloth	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-8103	ASTM E2149 - 2013	1809364	L420 Exhaust treated (4%) Bioprotect 500 Exhaust treated (1%) Washed 24 hours	<i>Escherichia Coli</i> (ATCC #25922)	Four out of five treated materials registered a 3.10 log reduction post 24 hours against E. Coli on BP and L420 treated textiles.
6/24/2018	BP vs. S. Aureus on Paris Linens Bed sheets, towels & microfiber sheet	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-8103	ASTM E2149-2001	1809365	Bioprotect 500 (5%) & L-420 Laundry Treatment	<i>Staphylococcus Aureus</i> (ATCC #6538)	The BP treated metal showed no fungal or mold growth during the 30 day test.
6/24/2018	BP vs. E. Coli on Paris Linens Bed sheets, towels & microfiber sheet	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-8103	ASTM E2149-2001	1809369	Bioprotect 500 (5%) & L-420 Laundry Treatment	<i>E. Coli</i> (ATCC #25922) Fungus type: a. <i>Aspergillus flavus</i> b. <i>Aspergillus versicolor</i> c. <i>Penicillium funiculosum</i> d. <i>Chaetomium globosum</i> e. <i>Aspergillus niger</i>	The unwashed BP treated floor tiles showed >99.99% (>5 log) reduction in <i>Salmonella</i> after 24 hours.
4/30/2018	Antifungal Testing on BP treated Metal	E Labs 5150 Lad Land Dr. Friedenicksburg, VA 22407 Phone: (540) 834-0372	MIL-STD-8108 Method 508.6	6628	Bioprotect 500 (5%)		The unwashed BP treated separation curtains produced >99.98% (>3 log) reduction in <i>C. Diff</i> after 24 hours.
3/19/2018	BP vs. Salmonella on Tile Flooring	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-8103	ASTM E2149-2001	1803464	Bioprotect RTU (0.5%)	<i>Salmonella</i> (ATCC #14028)	The unwashed BP treated separation curtains produced >99.98% (3 log) reduction in <i>S. Aureus</i> after 24 hours.
1/20/2018	BP vs. C. Diff on Hospital Separation Curtains	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-8103	ASTM E2149-2001	1801639	Bioprotect 500	<i>Vegetative Clostridium Difficile</i> (ATCC #9694-1/870)	The unwashed BP treated separation curtains showed the following results after 90 days: 99.97% (3 log) reduction in <i>E. Coli</i> 99.86% (3 log) reduction in <i>S. Aureus</i> 99.86% (3 log) reduction in <i>Salmonella</i> 99.86% (3 log) reduction in <i>C. Difficile</i> 99.86% (3 log) reduction in <i>C. Perfringens</i> 99.86% (3 log) reduction in <i>C. Eurytomae</i> 99.86% (3 log) reduction in <i>C. Clostridium</i> 99.86% (3 log) reduction in <i>Candida Albicans</i> 99.86% (3 log) reduction in <i>S. Cerevisiae</i>
1/8/2018	BP vs. Staph on Hospital Separation Curtains	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-8103	ASTM E2149-2001	1801065	Bioprotect 500	<i>Staphylococcus Aureus</i> MRSA strain (ATCC #6538)	Both the washed and unwashed BP treated turf samples showed >99.9% reduction (3.3 log kill) against <i>S. Aureus</i> after 4 and 24 hours.
10/23/2017	BP vs. Staph on Turf Material	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-8103	ASTM E2149	11101-288	Bioprotect 500	<i>Staphylococcus Aureus</i> (ATCC #700699)	The BP treated plastic cosmetic compact samples showed the following results after 90 days: 99.97% (3 log) reduction in <i>E. Coli</i> 99.86% (3 log) reduction in <i>S. Aureus</i> 99.86% (3 log) reduction in <i>Salmonella</i> 99.86% (3 log) reduction in <i>C. Difficile</i> 99.86% (3 log) reduction in <i>C. Perfringens</i> 99.86% (3 log) reduction in <i>C. Eurytomae</i> 99.86% (3 log) reduction in <i>C. Clostridium</i> 99.86% (3 log) reduction in <i>Candida Albicans</i> 99.86% (3 log) reduction in <i>S. Cerevisiae</i>
3/17/2017	BP Testing on Plastic Cosmetic Cases	Spectro Analytical Labs E-41, Okhla Indl. Area, Ph-II New Delhi, India 110020 Ph: 91-11-40522000 care@spectro.in	ASTM E2149-10	16112407-1	Bioprotect 500	<i>E. Coli</i> (NTCC 41) <i>Staphylococcus Aureus</i> (NTCC 96) <i>Salmonella</i> (NTCC 1251) <i>Clostridium Perfringens</i> (NTCC 450) <i>Aspergillus Niger</i> (NTCC-282) <i>Candida Albicans</i> (NTCC-183) <i>Saccharomyces Cerevisiae</i> (NTCC-2589)	The unwashed BP treated towels showed a 99.99% log reduction (4 log reduction) in bacteria after 4 and 24 hours.
2/27/2016	BP vs. Cat Urine on Towels	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-8103	ASTM E2149-2001	1602487	Bioprotect 500	Bacteria derived from Cat Urine	The BP cured Polyethylene, Polyvinyl Chloride and Metal samples each showed >99.048 9% reduction (>2.3 log reduction) in <i>S. Aureus</i> after 24 hours.
9/5/2015	BP vs. Staph on Rigid Plastics & Metals	Nelson Laboratories 6290 S. Redwood Rd. Salt Lake City, UT 84123 Ph: 801-290-7500	ASTM E2149-2001	1101-3048	Bioprotect 500	<i>Staphylococcus Aureus</i> (MRS4) (ATCC #63591)	Bioprotect passed the cytotoxicity test proving it causes no harm to mammal cells.
9/2/2015	BP Cytotoxic Testing	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-8103	STPQC02 Rev 09 MEM Elution Test	842047	Bioprotect 500	Mammal cells	The unwashed, BP treated lab coat and scrubs showed excellent resistance to <i>S. Aureus</i> with a >99.999% reduction in bacteria (>5 log reduction) after 24 hours.
8/13/2015	BP vs. Staph on Lab Coats & Scrubs	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-8103	ASTM E2149-2001	1101-3028	Bioprotect 500	<i>Staphylococcus Aureus</i> (MRS4) (ATCC #63591)	



BIOPROTECT Antimicrobial
Testing Data 2019

DATE	NAME	LABORATORY	TEST METHOD	REPORT #	PRODUCT TESTED	ORGANISM TESTED	RESULTS
12/19/2014	BP Testing on Plastic Hospital Bed Rails	GAP Environmental Service 1020 Hargrove Rd. London, Ontario, CA N6E 1P1 Ph: 519-861-1591 m@gsaplab.com	ISO 22196	A11149	Bioprotect 500	<i>Staphylococcus Aureus</i> MRSA (ATCC #33591) <i>E. Coli</i> (ATCC #25922) <i>Enterococcus faecalis</i> (ATCC #00902)	The BP treated plastic bed rails showed a >99.999933% reduction in <i>S. Aureus</i> (>5 log reduction), >99.999644% reduction in <i>E. Coli</i> (>5 log reduction) and >99.999519% reduction in <i>E. Faecalis</i> (>4 log reduction).
5/11/2013	BP vs. Staph on Plastic Cases	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-9103	ASTM E2149-2001	1101-1535	Bioprotect 500	<i>Staphylococcus Aureus</i> MRSA Strain (ATCC #700899)	The BP treated plastic cases showed >99.9% reduction (>3 log reduction) in Staph/MRSA strain of bacteria on the plastic cases after 4 and 24 hours.
11/15/2012	BP vs. C. Diff Spores	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-9103	N/A	1101-938 and 974	Bioprotect RTU & Bioprotect 500	<i>Clostridium Difficile</i> (ATCC #39999)	BP500 showed a 99.9% reduction (3 log reduction) in C. Diff spores after 1 minute and 3 minutes. Thus, BP is effective at killing C. Diff spores.
8/18/2012	BP vs. Aspergillus niger (Mold) on Filters	PolyFusion Laboratory 2201 N. Wayne St. Angola, Indiana 46703 Ph: 280-624-7659	ASTM E2149-2001	1101-888	Bioprotect 500	<i>Aspergillus niger</i> ATCC 9842	The BP treated sample showed excellent reduction in viable mold spore count at 4 hours and at 24 hours.
1/30/2012	BP vs. E. Coli on Plastic Films	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-9103	ASTM E2149-10	13012	Bioprotect RTU	<i>E. Coli</i> (ATCC #25922)	The BP treated plastic films showed a 99.999% reduction (>5 log reduction) in <i>E. Coli</i> after 1 hour.
1/28/2012	BP vs. Staph on White Fabric	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-9103	ASTM E2149-2001	1101-563	Bioprotect 500	<i>Staphylococcus Aureus</i> (ATCC #6538)	The BP treated white fabric samples showed excellent antimicrobial activity with >99.9% reduction (>3 log kill) in Staph after 4 and 24 hours.
7/22/2011	BP vs. Staph on Concrete Flooring	Sanders Laboratories 1050 Endeavor Court Nokomis, FL 34275 Ph: 941-488-9103	ASTM E2149-2001	1101-291	Bioprotect 500	<i>Staphylococcus Aureus</i> (ATCC #700899)	The BP treated concrete samples showed excellent antimicrobial activity with >99.9% reduction (>3 log kill) in Staph after 4 and 24 hours.
5/20/11	BP Testing on Ornamental Flowers	Glades Crop Care, Inc 949 Turner Quay Jupiter, FL 33458 Ph: 561-746-3740 Precision Testing Lab 313 Hill Ave Nashville, TN 37210 Ph: 615-254-3401	Phytotoxicity Screening	11-02	Bioprotect 500	Crop tolerance	It was proven that BP does not cause a phytotoxic response or crop injury when applied to foliage or open blooms.
11/19/2009	Bob Barker 100 Wash Test		ASTM E2149	85479	Bioprotect 500	<i>Staphylococcus Aureus</i> (ATCC #6538)	The BP treated shirts and pants showed a 99.99% reduction (4 log kill) in Staph after 100 washings.

SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: BioProtect 500
 Revision Date: January 2, 2018

Chemical Description: Organosilane Antimicrobial

Distributor: ViaClean Technologies LLC
 230 S. Broad Street
 Philadelphia, PA 19102
 877-447-5956

Emergency: (24hr) 800-535-5053 (Infotrac)

SECTION 2: HAZARDS IDENTIFICATION/EMERGENCY OVERVIEW

Classification of the Substance or Mixture: SERIOUS EYE DAMAGE/EYE IRRITATION-Category 2A
 SKIN CORROSION/IRRITATION-Category 3

Hazard Pictograms :



Signal Word: Warning
 Hazard Statements: Causes serious eye irritation. Causes mild skin irritation.
Precautionary Statements

Prevention: Wear protective gloves/clothing and eye/face protection. Do not breathe dusts or mists. Do not eat, drink, or smoke when using this product. Wash hands thoroughly after handling.

Response: Get medical attention if you do not feel well. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED : Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor . IF ON SKIN (or Hair): Take off immediately all contaminated clothing. Rinse skin with water or shower IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention .

Storage : Store locked up. Store in a well-ventilated area . Keep cool.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

SECTION 3: COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

	<u>CAS No.</u>	<u>% Weight</u>
Octadecylaminodimethyltrihydroxysilyl propyl ammonium chloride [also named 3-(trihydroxysilyl) propyldimethyloctadecyl ammonium chloride]	27668-52-6	5.0%

Chloropropyltrimethoxysilane	2530-87-2	<1.0%
Methanol	67-56-1	<1.0%

Note: The above information is not intended for use in preparing product specifications.

SECTION 4: FIRST AID MEASURES

Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately. Continue to flush eyes with plenty of water.
Inhalation:	Get medical attention immediately. Remove victim to fresh air and keep at rest in a position comfortable for breathing. In unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin Contact:	In case of contact, flush skin with plenty of water for at least 30 minutes. Get medical attention immediately if irritation develops or persists. Wash contaminated clothing thoroughly before reuse. Clean shoes thoroughly before reuse.
Ingestion:	Get medical attention immediately. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flammability of the Product	Not combustible.
Extinguishing Media	Small Fire: Use DRY chemical powder Large Fire: Use water spray, fog, or foam. Do not use water jet as an extinguisher, as this will spread the fire.
Protective Equipment for Firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Small Spill or Leak	Dilute with water and mop up or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary, use suitable protective equipment (Section 8). Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill or Leak	Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use suitable protective equipment (Section 8). Do not release into the environment.
Containment Methods	Stop the flow of material if this is without risk. Prevent spilled material from entering sewage and drainage systems which lead to waterways. Contain and collect spillage with absorbent material, i.e. sand, earth, diatomaceous earth and place in a container for disposal according to local regulations. Contaminated absorbent material may pose the same hazard as the spilled product.

7. HANDLING AND STORAGE

Protective Measures: Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Wear appropriate respirator when ventilation is inadequate. Do not enter storage spaces unless adequately ventilated. Keep in the original container and keep tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking, or smoking. Wear appropriate personal protective equipment.

Conditions for Safe Storage Do not store below 0°C (32°F). Store in accordance with local regulations. Store in a segregated area. Store in original container protected from direct sunlight in a dry, cool, and well ventilated area, away from incompatible materials and food and drink. Separate from acids and oxidizing materials. Keep container closed and tightly sealed until ready for use. Use appropriate containment to avoid environmental contamination. Empty containers retain product residue and can be hazardous. Do not reuse container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Ingredient</u>	<u>Exposure Limits</u>
Methanol	OSHA PEL 200ppm TWA, ACGIH TLV 250ppm STEL(skin)
Engineering Controls	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Personal Protection	
Eyes	Chemical splash goggles and/or face shield.
Skin	Permeation resistant gloves. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. Permeation resistant clothing and foot protection.
Respiratory	No personal respiratory protective equipment is normally required. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable), an approved respirator must be worn.
General Hygiene Considerations	When using, do not eat, drink, or smoke. Do not get in eyes. Do not get this material in contact with skin. Wash hands and face before breaks and immediately after handling the product. Wash hands after handling and before eating. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid with moderate viscosity
Color	Colorless to pale yellow
Odor	Characteristic
PH	4.0-6.0
Evaporation Rate	Not available
Explosion Limits	Not available
Specific Gravity	1.00 ± 0.02
Solubility	Soluble in cold or hot water
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available

10. CHEMICAL STABILITY AND REACTIVITY

Reactivity	No specific test data for this product
Chemical Stability	Material is stable under normal conditions.
Conditions to Avoid	Extremes of temperature and direct sunlight.

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause birth defects or other reproductive harm: Methyl Alcohol

MASSACHUSETTS: Methyl Alcohol

NEWJERSEY: Chloropropyl trimethoxysilane, Methyl Alcohol

PENNSYLVANIA: Chloropropyl trimethoxysilane, Methyl Alcohol

INTERNATIONAL REGULATIONS:

EINECS registry number for 3-(trimethoxysilyl)propyldimethyloctadecyl ammonium chloride is 248-595-816.

16. OTHER INFORMATION

Notice to the Reader: The information in this Safety Data Sheet should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. All information concerning this product and/or suggestions for handling and use contained herein are offered in good faith and are believed to be reliable as of the date of publication. However, no warranty is made as to the accuracy of and/or sufficiency of such information. The Buyer must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes, including mixing with other products.