

PERSISTENT, CONTINUOUS, CLEAN



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 (bacterias, 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	✓	✓		



CONSULTING GROUP

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Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 1 of 6

BioProtect RTU

SECTION 1 : Identification of the substance/mixture and of the supplier

Product name : BioProtectRTU

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: BioProtectRTU

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:

ViaClean Technologies, LLC.
230 S Broad Street, Suite 1201
Philadelphia PA, 19102
877-447-5956

Emergency telephone number:

Infotrac 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:

Not classified for physical or health hazards under GHS.

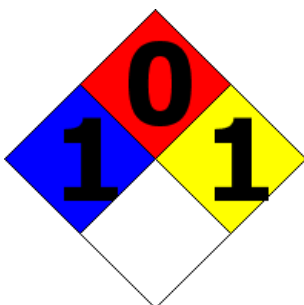
Hazard statements:

Precautionary statements:

If medical advice is needed, have product container or label at hand
Read label before use

Other Non-GHSClassification:

WHMIS
NFPA/HMIS



NFPA SCALE (0-4)

Health	1
Flammability	0
Physical Hazard	1
Personal Protection	B

HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:

CAS 27668-52-6	3-(Trihydroxysilyl) propyldimenhyloctadecyl ammonium chloride	<1 %
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Percentages are by weight

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 2 of 6

BioProtect RTU

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Get medical assistance if cough or other symptoms appear.

After skin contact: Rinse/flush exposed skin gently using soap and water for 15-20 minutes. Seek medical advice if discomfort or irritation persists.

After eye contact: Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention if irritation persists or if concerned.

After swallowing: Rinse mouth thoroughly. Do not induce vomiting. Seek medical attention if irritation, discomfort, or vomiting persists. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:

Irritation. headache. nausea. shortness of breath.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents:

Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors.

Advice for firefighters:

Protective equipment: Wear protective eyewear, gloves, and clothing. Refer to Section 8. Use NIOSH-approved respiratory protection/breathing apparatus.

Additional information (precautions): Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation. Ensure that air-handling systems are operational.

Environmental precautions:

Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

Methods and material for containment and cleaning up:

Wear protective eyewear, gloves, and clothing. Refer to Section 8. Always obey local regulations. Containerize for disposal. Refer to Section 13. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Keep in suitable closed containers for disposal.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances.

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 3 of 6

BioProtect RTU

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Keep away from food and beverages. Protect from freezing and physical

damage. Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible materials.

SECTION 8 : Exposure controls/personal protection



Control Parameters:

No applicable occupational exposure limits

Appropriate Engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Respiratory protection:

Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

Protection of skin:

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

Eye protection:

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.

General hygienic measures:

Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing.

SECTION 9 : Physical and chemical properties

Appearance (physical)	Clear, colorless liquid	Explosion limit lower: Explosion limit upper:	Not determined Not determined
Odor:	Mild	Vapor pressure:	Not determined
Odor threshold:	Not determined	Vapor density:	Not determined
pH-value:	Approx. 5.0	Relative density:	1.003
Melting/Freezing point:	Not determined	Solubilities:	Material is water soluble.
Boiling point/Boiling range:	Above 210F	Partition coefficient (n- octanol/water):	Not determined
Flash point (closed cup):	Not determined	Auto/Self-ignition temperature:	Not determined

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 4 of 6

BioProtect RTU			
Evaporation rate:	Not determined	Decomposition temperature:	Not determined
Flammability (solid,gaseous)	Not determined	Viscosity:	a. Kinematic:Not determined b. Dynamic: Not determined
Density: Not determined			

SECTION 10 : Stability and reactivity

Reactivity: Nonreactive under normal conditions.

Chemical stability: Stable under normal conditions.

Possible hazardous reactions: None under normal processing.

Conditions to avoid: Incompatible materials. Do not mix with cleaners, do not freeze, and avoid heat.

Incompatible materials: Sodium oxidizers

Hazardous decomposition products:

SECTION 11 : Toxicological information

Acute Toxicity: No additional information.

Chronic Toxicity: No additional information.

Corrosion Irritation: No additional information.

Sensitization: No additional information.

Single Target Organ (STOT): No additional information.

Numerical Measures: No additional information.

Carcinogenicity: No additional information.

Mutagenicity: No additional information.

Reproductive Toxicity: No additional information.

SECTION 12 : Ecological information

Ecotoxicity Persistence and degradability:

Bioaccumulative potential:

Mobility in soil:

Other adverse effects:

SECTION 13 : Disposal considerations

Waste disposal recommendations:

Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14 : Transport information

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 5 of 6

BioProtect RTU

UN-Number

Not Regulated.

UN proper shipping name

Not Regulated.

Transport hazard class(es)

Packing group: Not Regulated

Environmental hazard:

Transport in bulk:

Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

None of the ingredients is listed

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients is listed

RCRA (hazardous wastecode):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients is listed

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients is listed

SECTION 16 : Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 10.24.2014

Page 6 of 6

BioProtect RTU

SDS contains all the information required by the Controlled Products Regulations. Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases:

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

CFR: Code of Federal Regulations (USA)

SARA: Superfund Amendments and Reauthorization Act

(USA) RCRA: Resource Conservation and Recovery Act (USA)

TSCA: Toxic Substances Control Act (USA)

NPRI: National Pollutant Release Inventory (Canada)

DOT: US Department of Transportation

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