

Issue Date: 19-May-2020

Revision Date: 27-April-2021

Version 1

1. IDENTIFICATION

Product identifier

Product Name BIOPROTECT 500

Other means of identification

SDS # VIA-004

Registration Number(s) EPA Reg. No. 87583-2

Recommended use of the chemical and restrictions on use

Recommended Use Organosilane Antimicrobial.

Details of the supplier of the safety data sheet

Manufacturer Address

PureShield Inc. a ViaClean Technologies Company
230 S. Broad Street Suite 1201
Philadelphia, PA 19102
Ph: 877-447-5956

Emergency telephone number

Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Colorless to pale yellow liquid

Physical state Liquid with moderate viscosity

Odor Characteristic

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Dimethyloctadecyl[3-(trimethoxysilyl)propyl]ammonium chloride	27668-52-6	5-10
Methanol	67-56-1	<1.0

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General Advice

Provide this SDS to medical personnel for treatment.

Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a poison center or doctor/physician if you feel unwell or if skin irritation persists. Wash contaminated clothing before reuse.
Inhalation	Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician/poison center if individual's condition declines or if symptoms persist. If not breathing, give artificial respiration.
Ingestion	Rinse mouth. Do not induce vomiting without medical advice. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Call a poison center or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms	Moderate skin and eye irritation. May cause gastrointestinal irritation, nausea, diarrhea, and vomiting.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical. Foam. Water spray (fog). Carbon dioxide (CO2).

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Product is not flammable or combustible.

Hazardous combustion products Carbon oxides.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool exposed containers with water to prevent rupturing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation.
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Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.
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Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so. Soak up and contain spill with an inert (i.e. vermiculite, dry sand or earth) absorbent material.
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Methods for Clean-Up	Sweep up and shovel into suitable containers for disposal. For waste disposal, see section 13 of the SDS.
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7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials Do not mix with other cleaners or chemicals. Strong oxidizing agents. Inorganic acids. Inorganic bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methanol 67-56-1	STEL: 250 ppm TWA: 200 ppm S*	TWA: 200 ppm TWA: 260 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m ³ (vacated) S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area. General ventilation is recommended.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Chemical safety goggles/faceshield. Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection IF TLV is exceeded, use a NIOSH/MSHA approved respirator. Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid with moderate viscosity	Odor	Characteristic
Appearance	Colorless to pale yellow liquid	Odor Threshold	Not determined
Color	Colorless to pale yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	4.0-6.0	
Melting point / freezing point	Not determined	
Boiling point / boiling range	Not determined	
Flash point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	

Flammability Limit in Air

Upper flammability or explosive limits	Not determined
Lower flammability or explosive limits	Not determined
Vapor Pressure	N/A
Vapor Density	N/A
Relative Density	1.00 + / - 0.02
Water Solubility	Not determined
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Autoignition temperature	Not determined
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Excessive heat and fire. Keep from freezing.

Incompatible materials

Do not mix with other cleaners or chemicals. Strong oxidizing agents. Inorganic acids. Inorganic bases.

Hazardous decomposition products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Eye Contact	May cause temporary irritation on eye contact.
Skin Contact	Prolonged contact may cause redness and irritation.
Inhalation	May cause irritation if inhaled.
Ingestion	May cause irritation of gastrointestinal tract.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Dimethyloctadecyl[3-	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2 mg/L (Rat) 1 h

(trimethoxysilyl)propyl]ammonium chloride 27668-52-6			
Methanol 67-56-1	= 6200 mg/kg (Rat)	= 15800 mg/kg (Rabbit) = 15840 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h = 64000 ppm (Rat) 4 h
(3-Chloropropyl)trimethoxysilane 2530-87-2	= 6170 µL/kg (Rat)	= 2830 µL/kg (Rabbit)	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity

Not determined.

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Methanol 67-56-1		19500 - 20700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 static 28200: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through	

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Chemical name	Partition coefficient
Methanol 67-56-1	-0.77

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methanol 67-56-1		Included in waste stream: F039		U154

California Hazardous Waste Status

Chemical name	California Hazardous Waste Status
Methanol 67-56-1	Toxic Ignitable

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION**International Inventories**

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Dimethyloctadecyl[3-(trimethoxysilyl)propyl]ammonium chloride	X	ACTIVE	X	X	X	X	X	X	X
Methanol	X	ACTIVE	X	X	X	X	X	X	X
(3-Chloropropyl) trimethoxysilane	X	ACTIVE	X	X	X	X	X	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Methanol 67-56-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Methanol - 67-56-1	67-56-1	<1.0	1.0

EPA/FIFRA

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

WARNING:

Causes substantial but temporary eye injury.
 Harmful if absorbed through skin or inhaled.
 Do not get in eyes.
 Avoid contact with skin and avoid breathing vapor.
 This product is toxic to fish.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Methanol - 67-56-1	Developmental

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Methanol 67-56-1	X	X	X

16. OTHER INFORMATION

NFPA**Health Hazards**

Not determined

Flammability

Not determined

Instability

Not determined

Special Hazards

Not determined

HMIS**Health Hazards**

Not determined

Flammability

Not determined

Physical hazards

Not determined

Personal Protection

Not determined

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Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet