



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: **ENVIROSYSTEMS® BIOSHIELD® 75**

Revision Date: July 8, 2019

Chemical Description: Organosilane antimicrobial

Manufacturer: IndusCo, Ltd.
2319 Joe Brown Drive
Greensboro, NC 27405
Main Telephone No. 336-375-7555
CHEMTREC-For Emergencies Only 1-800-424-9300 (24 hours), International 1-703-527-3887
NZ National Poison Centre 0800 764 766 (0800 POISON)

SECTION 2: HAZARDS IDENTIFICATION/EMERGENCY OVERVIEW

Classification of the Substance or Mixture: ACUTE ORAL TOXICITY – Category 5
ACUTE DERMAL TOXICITY – Category 5

Hazard Pictograms: None

Signal Word: Warning

Hazard Statements: May be harmful if swallowed.
May be harmful in contact with skin.

Precautionary Statements

Prevention: Wear protective gloves/clothing and eye/face protection. Avoid breathing dust/fume/mist/vapors/spray.

Response: If you are not feeling well, get medical attention.
IF SWALLOWED: Rinse mouth. If not feeling well, get medical attention.
IF ON SKIN: Rinse skin with water or shower. If not feeling well, get medical attention.
IF SKIN IRRITATION OR RASH OCCURS: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
IF INHALED: If you are not feeling well, get medical attention.

Storage: Store locked up.

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

SECTION 3: COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

<u>Ingredient</u>	<u>CAS #</u>	<u>CONCENTRATION</u>
Octadecylaminodimethyltrihydroxysilyl propyl ammonium chloride [also named 3-(trihydroxysilyl) propyldimethyloctadecyl ammonium chloride in water]	27668-52-6	0.75%

SECTION 4: FIRST AID MEASURES

Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists.
Inhalation:	If not feeling well, get medical attention. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If 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:	If skin irritation or rash occurs: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. Get medical advice/attention.
Ingestion:	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting. 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.
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	Wear appropriate personal protective equipment. 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.
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

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	Wear eye and/or face protection.
	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 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
Color	Clear colorless
Odor	Slight
pH	3.5 - 5.0
Viscosity, 25°C	Water Thin
Evaporation Rate	Not available
Explosion Limits	Non-Explosive
Specific Gravity	0.99-1.01
Flash Point	Not combustible
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.
Incompatible Materials	Inorganic acids and bases. Avoid contact with oxidizing agents (for example, nitric acid, peroxides, and chromates.)
Hazardous Decomposition Products	Carbon monoxide. Organic compounds which may be toxic.
Hazardous Polymerization	Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

CARCINOGENS:	OSHA: NO ACGIH:NO NTP:NO IARC:NO
Acute Oral Toxicity, SD Rats	
Oral LD ₅₀	>2000 mg/kg
Acute Dermal Toxicity, SD Rats	
Dermal LD ₅₀	>2000 mg/kg

Acute Dermal Irritation, Rabbit	Non-Irritant	BioShield® 75 is classified as “Non-irritant” to rabbit skin according to Globally Harmonized System for Classification of Chemicals (UN GHS, 2017)
Acute Eye Irritation, Rabbit	Non-Irritant	
Skin Sensitization, Guinea Pigs	Negative	(Magnusson and Kligman Rating of Allergenicity - Weak Sensitizer, Grade 1)
Acute Inhalation Toxicity, SD Rats	Unclassified	

12. ECOLOGICAL INFORMATION

Degradability/OECD Inherently biodegradable. The trihydroxysilyl quats are not expected to contaminate surface or ground water due to rapid degradation by hydrolysis. (US EPA 739-R-07-007)

13. DISPOSAL CONSIDERATIONS

Environmental Hazards De-activation required during clean up if a spill occurs. De-activation can be achieved by addition of anionic surfactants in quantity equivalent to that of BioShield®75 actives. This product is toxic to fish. Do not discharge effluent containing this product into lakes, streams, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority.

14. TRANSPORT INFORMATION

Land-DOT (US Dept of Transportation)----- Not Dangerous Goods, Not Regulated
Sea-IMDG (International Maritime Dangerous Goods Code)-- Not Dangerous Goods, Not Regulated
Air-IATA (International Air Transport Association)----- Not Dangerous Goods, Not Regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200): Hazardous

TSCA: All intentionally present components are listed on the TSCA inventory.

CERCLA Hazardous substances: none

SARA 311/312 HAZARD CATERGORIES:

Acute:	Yes
Chronic:	No
Fire:	No
Pressure:	No
Reactive:	No

SARA Title III Section 302 Extremely Hazardous Substances: none

SARA Title III Section 313 Toxic Chemicals subject to reporting: none

State Regulations

CALIFORNIA:

This product contains no chemicals known by the State of California (Proposition 65) to cause cancer, birth defects or other reproductive harm.

International Regulations

EINECS registry number

3-(trimethoxysilyl)propyldimethyloctadecyl ammonium chloride: 248-595-8

NZ Group Standard HSR002530

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. The information is designed for workplace employees, emergency personnel and for other situations where there is a potential for large-scale or prolonged exposure. For consumer use, all precautionary and first aid language is provided on the product label in accordance with applicable government regulations. 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.