

***Goldshield®5***  
**Antimicrobial Protectant**  
(Microbiostatic –Biocidal Agent)  
EPA Registration No. 85556-1  
EU Registered: Biocide  
China Registered: CCDC

**PRODUCT DESCRIPTION**

A patented water-stabilized, surface penetrating organosilane (3-(trihydroxysilyl)propyl)dimethyl-octadecylamine ammonium chloride) that provides effective antimicrobial properties on a wide variety of materials. *Goldshield 5* Protectant is a water-based 5% concentrated solution of a Silicone Quaternary Ammonium Salt that can provide a durable microbiostatic finish when applied to textiles, siliceous surfaces, natural and man made fibers, metals, leather, wood, rubber, plastic and Formica. For a general description of the typical chemical and physical properties refer to the Material Safety and Data Sheet.

**TECH SHEET FOR DOMESTIC AND INTERNATIONAL CLIENTS, PLEASE REFER TO SPECIFIC REGULATORY AGENCIES FOR AGENT CLASSIFICATION:**

**BENEFITS**

- **Patented**
- Effectively inhibits the growth of bacteria, fungi, yeasts and certain viruses on the treated surfaces of most substrates based on hospital clinical trials and independent studies.
- Protects against microbial deterioration, discoloration and odor
- Provides an invisible, durable microbiostatic finish
- Non-flammable
- Provides anti-static properties to surfaces
- Applies fast and easily
- Dries quickly after application
- Effective over a broad pH range (3-10)
- Prevents biofilm build-up
- Non-flammable
- Does not pose the risk of genetic adaptation
- Adhesion to “difficult” substrates
- Strong bonding to hydrophilic reactive sites (through covalent bonding and the creation of interpenetrating networks)
- Low moisture uptake (hydrophobicity balance)
- Thermal stability
- UV resistance
- Low surface tension

- Controlled Tg inclusions, resulting in stress reduction or increased surface hardness
- Reduced dirt pick-up and anti-graffiti properties (hydrophobicity/oleophobicity)

## **APPLICATIONS**

**Goldshield 5** Protectant provides an invisible, durable microbiostatic finish that protects surfaces, equipment, air filters and treated textile against microbial contamination and bio-deterioration of textiles by inhibiting microbial growth. This product will deliver effective inhibition of bacteria, fungi, yeasts and certain viruses including mold/mildew and algae; thus protecting these substrates for extended periods of time. In the USA EPA permits a 90 day residual claim or when bacteria, fungi re-appear.

## **DIRECTIONS FOR INDUSTRIAL AND COMMERCIAL USE**

**Goldshield 5** Protectant can be applied to organic or inorganic textiles by exhausting, padding, spraying or dipping finishing techniques. All substances can be dried at normal fabric processing temperatures or room temperature or at temperatures to a maximum of 160°C (320°F).

**For most surfaces:** For ideal performance of the technology's residual action of long-term protection it is best to clean or remediate the surface before application. Permit the surface to dry and apply GS 5 by the recommended dispensing systems. If there is limited mold or other fungi GS, 5 can be directly applied to remove these microbes and then re-applied with a second application.

Prepare solutions by simply adding **Goldshield ®5** to solvent and stirring. Dilute **Goldshield® 5** by adding 5 or 6 parts water to 1 part **Goldshield® 5** concentrate and stir or Dilute **Goldshield ®5** by adding 0.2 to 2 fluid ounces of **Goldshield ®5** per cup (3.2 to 32 fluid ounces of **Goldshield ®5** per gallon) of water or other solvents (for example, alcohol and ketones) and then applied to organic or inorganic substrates by brushing, dipping, soaking, spraying, to give a final treatment of 0.1 to 1.0 percent by weight active ingredient.

By Electrostatic sprayers, such as Victory or ESS, dilute by adding 6 parts water to one part concentrate. Using a hand held device with 40 micron release the yield per gallon should be 2800+ sq. ft. per 33.8 oz. container.

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## **MATERIALS OF COMPATIBILITY**

**Goldshield 5** Protectant is compatible with most materials including: cotton, cotton blends, polyester, nylon, vinyl, plastics; PVA, PVC, CPVC, polyethylene, polypropylene, and other cellulosic materials. Substrates of metals and plastics, or marble compositions.

## **COMPATIBILITY**

**Goldshield 5** protectant's water-based formulation offers uniform dispensability and is compatible with a wide variety of materials and mixtures.

## **STORAGE AND HANDLING**

Read the label and Material Safety and Data Sheet for complete handling information before using this product.

## **PACKAGING**

**Goldshield 5** Protectant is packaged in 32 oz., 4- One gallon containers, 5gal., pails, drums, and disposable totes.

## **REMARKS**

If you need assistance or information, please call AP Goldshield 516 674.4085; email: [info@goldshieltech.com](mailto:info@goldshieltech.com) or write to AP Goldshield LLC PO Box 428, , Locust Valley, NY 11560

**For Medical and Transportation Emergencies** involving this product call CHEMTREC (24 hour response): number 800-262-8200.