

THE NEW HE 4005 ANTIMICROBIAL

Approved as antimicrobial active ingredient under
EPA and FDA regulations to protect articles
EPA Reg # 83019-5



Superior technology binds to surfaces, destroys microbes on contact by physically rupturing cell membranes

- Provides long-lasting antimicrobial protection
- Does not allow microbes to adapt to become resistant
- Conditions surfaces for thorough disinfection and sanitization



Protect surfaces from colonization of odor and stain causing microorganisms

- Efficacy verified by independent labs according to ASTM E2149, JIS Z 2801, and ISO 22196 standards
- Clinical testing in hospitals showed that a single application helps keep high touch surfaces hygienically clean for 5 weeks when incorporated into standard cleaning protocol



Compelling safety profile demonstrated by acute toxicity, biocompatibility, HRIPT, and mutagenicity studies

- Water-based, no residual methanol
- Non-toxic / non-irritating
- Non-leaching



Easy to apply by spraying, wiping, soaking, or dipping

- Apply to clean surfaces and allow to dry
- Re-apply once per month on high touch surfaces
- Compatible with all common surfaces and cleaning agents except anionic detergents

THE **ONLY** EPA
REGISTERED
ORGANOSILANE
ANTIMICROBIAL THAT IS

- ✓ **Methanol Free**
- ✓ **Food Contact Allowed**
- ✓ **Durable Protection**



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CHEMICAL

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BIOSAFE® HE 4005 Antimicrobial

A silane quaternary ammonium salt

- Product Code: HE4005
- Active ingredient: 3-(trihydroxysilyl)propyldimethyloctadecyl ammonium chloride
- Active ingredient concentration: 5%
- CAS NO: 199111-50-7
- EPA Registration Number: 83019-5
- Typical use level: 0.25 - 0.5 wt% of active relative to the substrate being treated
- Available in 200kg and 1,000kg packaging

Other BIOSAFE Antimicrobial Products

- HM 4100 Antimicrobial: 84% silane quaternary ammonium salt, powder
- HM 4072 Antimicrobial: 72% silane quaternary ammonium salt in methanol
- HM 4005 Antimicrobial: 5% silane quaternary ammonium salt in water
- HM 4001 Antimicrobial: 0.75% silane quaternary ammonium salt in water
- HE 4001 Antimicrobial: methanol free, 0.75% silane quaternary ammonium salt in water

Disclaimer

Antimicrobials preserve treated articles by preventing the growth of stain and odor causing bacteria, fungi, mold, and mildew. They do not protect public health.