



SKETCH REPORT ON VIRASCHUTZ HALOS

dimethyloctadecyl(3(trimethoxysilyl)propyl)ammoniumchloride

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What is it? Non-migrating antibacterial silicate glass coating

How does it act? It attracts nearly all kinds of microorganisms, punctures, and disrupts their membrane, inactivating them

Applications: it is applicable, as a surface coating, on a wide range of porous and non-porous materials, including i.e. glass, polymers, wood, varnished materials, paper, plastics, ceramics, several types of fabric, natural or nitrile rubber latex, micro/nanoparticles. The coated materials are then applied in the field of food packaging, antibacterial clothes, biomedical devices, pharmaceutical products, underwater surfaces, water treatment, plant protection products, topical antiseptic, hospitals, farms, etc...

Coating methods: applicable on surfaces via a manifold of different methods, including electrospray, soaking, wiping, mechanical spraying, thermal curing, foaming, atomization, aerosol, etc...

Biocidal Activity: 360° long-term protection against Gram-positive and Gram-negative bacteria, including resistant bacteria strains, and bacteria considered threatening for human health. Active also against yeast, mold, fungi, algae, protozoa parasites, biofilms, a wide range of viruses, including enveloped viruses, a class of viruses comprising CoVID-19. Viraschutz Halos belongs to the class of QACs, that are proven effective decreasing the viral load for disinfection procedures against COVID-19 as both contain relatively similar phospholipid bilayers.

Durability on surfaces: long-lasting efficacy up to several months and upon repeating washing (cleaning cycles with most common detergents, at the commonly applied cleaning temperatures and pH values

Surface characteristics: Upon coating, the surface displays hydrophobic and water repellent characteristics

Transparency: 100%



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Safety: it is a natural and readily biodegradable compound. It falls within the safety range for bioaccumulation. It shows no cytotoxicity, no mutagenicity and teratogenicity. It can be therefore considered a safe compound for human health and for the environment.

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A handwritten signature in black ink that reads 'Roberta Censi'.