

K18 Novel Broad-Spectrum Microbicide/Antimicrobial Technical Data Sheet

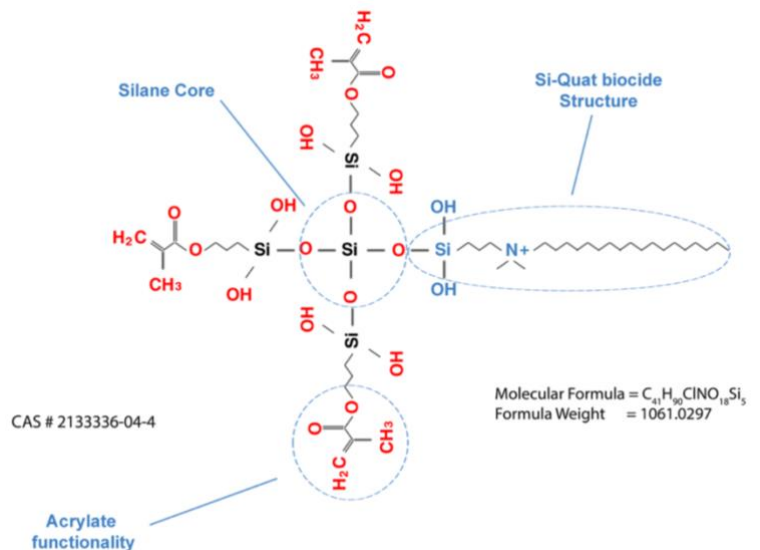
FiteBac K18 is a next-generation, broad-spectrum antimicrobial. It is a multifunctional inorganic/organic additive that enhances physical properties of polymer systems and provides antimicrobial traits. Originally developed for dental applications, K18 is currently present in FDA-cleared dental devices and it can also provide its unique benefits to other medical and non-medical materials.

FiteBac K18:

K18, depicted here, is the active ingredient in FiteBac-protected adhesives and bonding agents.

UV-cure materials containing ~5% K18 exhibit long-lasting antimicrobial protection as well as improved flexural, tensile, and anti-cracking properties.

It is currently present in FDA-cleared materials with peer-reviewed, published studies on effectiveness. Multiple publications confirm its ability to help increase the longevity of dental restorations.



Forms of Supply:

- FiteBac K18 50% Ethanol: Low-viscosity, low-color liquid
- FiteBac K18 30% in MMA: Flowable liquid
- FiteBac K18 50% HEMA
- FiteBac K18 ~5% on Various Silicas: Free-flowing, white powder
- Other monomers also available

Typical Properties, K18 50% Ethanol:

- | | |
|-----------------------|------------------------------|
| ○ Percent Solids | 47% to 53% |
| ○ FTIR | 98% match to standard |
| ○ Solvent | Ethanol, 200 Proof |
| ○ Viscosity | ~1cP |
| ○ Color | water white to slight yellow |
| ○ Disassociation Temp | ~165°C |

Potential Applications / Registrations:

- TSCA registration for K18 is pending and samples are available for R&D applications.
- FiteBac K18 is present in FDA-cleared dental devices.
- Incorporation into carbon fiber and nanotube systems impart improved carbon/resin wetting.
- Modification of polymer systems to impart exceptional, long-lasting microbicidal efficacy for coatings, composites, elastomers, and rubber products.
- K18 has shown to increase flexibility and durability in polymer systems.

Storage Conditions:

When stored between 10°C - 30°C in an unopened container in a dark location, K18 50% Ethanol has a shelf life of one year from the date of manufacture.

Patents:

K18 is patented. Patent information can be found on our website: FiteBac.com.

Legal Disclaimer:

FiteBac Technology believes this technical data sheet contains an accurate description of the typical uses of the product and disclaims any liability for incidental or consequential damages which may result from the use of the product that are beyond its control. It is the user's responsibility to thoroughly test the product in their application to determine its performance, efficacy, and safety. Nothing contained herein is to be considered as permission or a recommendation to infringe upon any patent or any other intellectual property right.

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