



BIOBAN™ 551 S Antimicrobial In-can Preservation for Universal Use in Aqueous Technical Products

General

BIOBAN™ 551 S Antimicrobial is a novel combination of active substances with a broad range of activity against bacteria as well as yeasts and molds. It is a universal in-can preservative for paints, plasters, binder dispersions, adhesives and other technical products. BIOBAN 551 S Antimicrobial is a combination of 2-methyl-4-isothiazolin-3-one and 2-methyl 1,2 benzisothiazolin-3-one.

BIOBAN 551 S is free of halogenated compounds, formaldehyde and formaldehyde releasers and does not contribute to VOC or AOX of the finished product.

BIOBAN 551 S is a liquid, easy to handle, meter and incorporate and has a good compatibility in paint and binder systems.

Physical Properties

The following are typical properties of BIOBAN 551 S Antimicrobial; **they are not to be considered as product specifications.**

Appearance	clear yellow liquid
Colour Gardner (ISO 4630)	0-4
pH (as is)	4-5
Density @ 20°C (ISO 2811-3)	~1.022 g/ml
Viscosity @ η 20°C (ASTM D 562)	~2 mPas
(Brookfield, spindle 1 at 60 rpm)	
Refractive index $n \frac{20}{D}$ (ASTM D 1218-02)	~1.352
Flash point (ISO 2592)	> 100°C o.c. Cleveland
Solidification point (ISO 935)	~ -2°C

Miscibility/Solubility

Miscible with water in any ratio.

Compatibility

BIOBAN 551 S shows in general a very good compatibility even after undiluted addition. A series of experiments have shown that viscosity and color of finished products preserved with BIOBAN 551 S do not change.

Stability

Temperature: up to 50°C (short period to 80°C), pH range: 3 to 11.

Antimicrobial Activity

BIOBAN 551 S combines environmental acceptability with effective preservation. It shows generally a very good compatibility and can be used in a wide range of products such as paints, plasters, adhesives, latex emulsions, tackifiers, mineral slurries, pigment dispersions and other technical, water based products.

BIOBAN 551 S can be added easily by stirring in during any step of the formulation process.

BIOBAN™ 551 S contains neither halogenated nor cationic or phenolic substances and is free of formaldehyde and formaldehyde releasers. Therefore, it is particularly suited for use in products where these substances are undesired.

It does not contribute to VOC or AOX of the finished product.

BIOBAN 551 S displays a broad range of activity against all types of gram-positive and gram-negative, aerobic and anaerobic bacteria as well as molds and yeasts which are commonly encountered in the wet stage protection of technical materials.

Should you encounter microbial problems or problems concerning special applications, please contact your local Dow Chemical Company representative.

Applications/ Directions for use

The optimum dosage rate of BIOBAN 551 S Antimicrobial depends upon the degree of contamination and the susceptibility of the product to be preserved.

The typical use concentration ranges between 0.10 – 0.20%.

Storage, Handling and Disposal

Please refer to the Safety Data Sheet of this product for precise handling instructions. In general, avoid eye and skin contact, wear safety goggles, gloves and protective clothing.

BIOBAN 551 S Antimicrobial should be stored in tightly sealed original containers and preferably at room temperature. Protect from frost and heat.

If the product does freeze, it has to be mixed homogeneously after warming up and can then be used without any loss in effectiveness.

Product Stewardship

Dow Microbial Control encourages its customers to review their applications of Dow Microbial Control products from the standpoint of human health and environmental quality. To help ensure that Dow Microbial Control products are not used in ways for which they are not intended or tested, Dow Microbial Control personnel are willing to assist customers in dealing with ecological and product safety considerations. Contact your representative if you need any assistance or information. When considering the use of any Dow product in a particular application, review the latest Safety Data Sheet and country-specific product label to ensure the intended use is within the scope of approved uses and can be accomplished safely. Before handling any of the products mentioned in the text, obtain available product safety information and take necessary steps to ensure safety of use.

**For further information
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