



BIOBAN™ 104 Antimicrobial

Highly Concentrated Nonflammable Preparation for Preservation of Construction Materials

General

BIOBAN™ 104 Antimicrobial is a highly concentrated liquid preparation of active substances, which are effective against fungi and algae. It has to be diluted with water prior to use.

BIOBAN 104 is used as a technical restorative treatment medium for infested and overgrown paint substrates. In contrast to usual refurbishment products which have a very limited active life, BIOBAN 104 has long term remedial effect. It contributes to the prevention of secondary infestation of coatings by bacteria which will grow on the matrix of destroyed fungi and algae. BIOBAN 104 improves the adhesion of dispersion paint and plasters, and contributes to the prevention of blisters and flaking of the new paint.

BIOBAN 104 is subject to limitations in application in the European Union countries due to the ordinances of the Biocidal Product Regulation 528/2012. See the following paragraph for background information.

BIOBAN 104 is a concentrated, stable blend of octylisothiazolone and quaternary ammonium compound.

Physical Properties

The following are typical properties of BIOBAN™ 104 Antimicrobial; **they are not to be considered product specifications.**

Appearance:	Yellowish, clear liquid	
Color (Gardner):	Max. 4	ISO 4630
Density $d_{\frac{20}{4}}$:	0.975 g/mL	ISO 2811-3
Refractive index $n_{\frac{20}{D}}$:	1.430	ASTM D 1218-02
Viscosity η 20°C:	<100 mPa.s	ISO 3219
Flash point:	>100°C	ISO 2592

Miscibility/Solubility

Forms clear solutions with water, aromatics, alcohols, glycols, esters. Not miscible with ketones, aliphatic or chlorinated solvents.

Stability

The activity will not be affected by temperatures from -15°C up to short term exposures to 60°C. The product is stable in the pH range 2-9.

Application and Activity

BIOBAN™ 104 Antimicrobial is a highly concentrated active substance and should be diluted with great precision to the correct use concentration.

To refurbish wall surfaces, which are overgrown with fungi and algae, it is recommended that a dilution of BIOBAN 104 of between 1:50 to 1:150 with water is used. The diluted material should be applied onto the substrate after mechanical cleaning.

On heavily infested surfaces and for internal use an additional treatment prior to the mechanical cleaning is recommended to prevent the disturbance and distribution of dry

fungal and algal spores. It is essential that precautions are taken to ensure that fixture and fittings are protected.

Prophylactic applications in dipping baths and spray booths should be performed with the diluted product at 1 to 200 volume.

If solutions of BIOBAN™ 104 Antimicrobial are applied by means of spraying, special safety precautions have to be observed to protect the workers and the environment from the aerosol. In particular, appropriate breathing equipment must be worn.

Substrates treated with BIOBAN 104 can be refurbished 12 to 24 hours after treatment.

BIOBAN 104 must be applied evenly across the complete surface to avoid areas of low concentration where fungal spores and algae may redevelop.

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

Dosage

- For the remediation of surfaces contaminated with fungi and algae: 1 part BIOBAN™ 104 Antimicrobial in 50 to 150 part of water.

Handling Precautions

Please refer to the Safety Data Sheet (SDS) of this product for precise handling instructions.

The processing and use of industrial chemicals require adequate technical and professional knowledge.

In general, avoid eye and skin contact, wear safety goggles, gloves and protective clothing.

In case of eye or skin contact despite precautionary measures, wash immediately and thoroughly with plenty of warm water and obtain medical attention.

The legal requirements prevailing in your country, especially on working hygiene and in the avoidance of accidents, must be observed.

Storage

Store products in tightly closed original containers at temperatures recommended on the product label.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Stir the product homogeneously before using the material.

Biocidal Products Regulation Compliance

BIOBAN™ 104 Antimicrobial is a biocidal product intended for use in accordance with product type 10 of the EU Biocidal Product Regulation (BPR, Regulation (EU) 528/2012).

Product type 10 represents “Construction material preservatives” which are products used for preservation of fibrous or polymerized materials such as leather, rubber or paper or textile products by the control of microbiological deterioration.

Examples of products covered by this product type are products for the preservation (to protect or/and to cure) of mortar, concrete, baked clay, slate and other building materials (not wood).

BIOBAN 104 Antimicrobial contains an active substance that is not notified for the use in product type 8, Wood Preservatives.

Any reference in this technical data sheet to applications other than the intended construction material preservation are discouraged and not supported under the BPR.

Product Stewardship

When considering the use of any Dow product in a particular application, review the latest Safety Data Sheet (SDS) and country-specific product label to ensure the intended use is within the scope of approved uses. Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products – from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including Safety Data Sheets (SDS), should be consulted prior to use of Dow products. Current Safety Data Sheets are available from Dow.

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