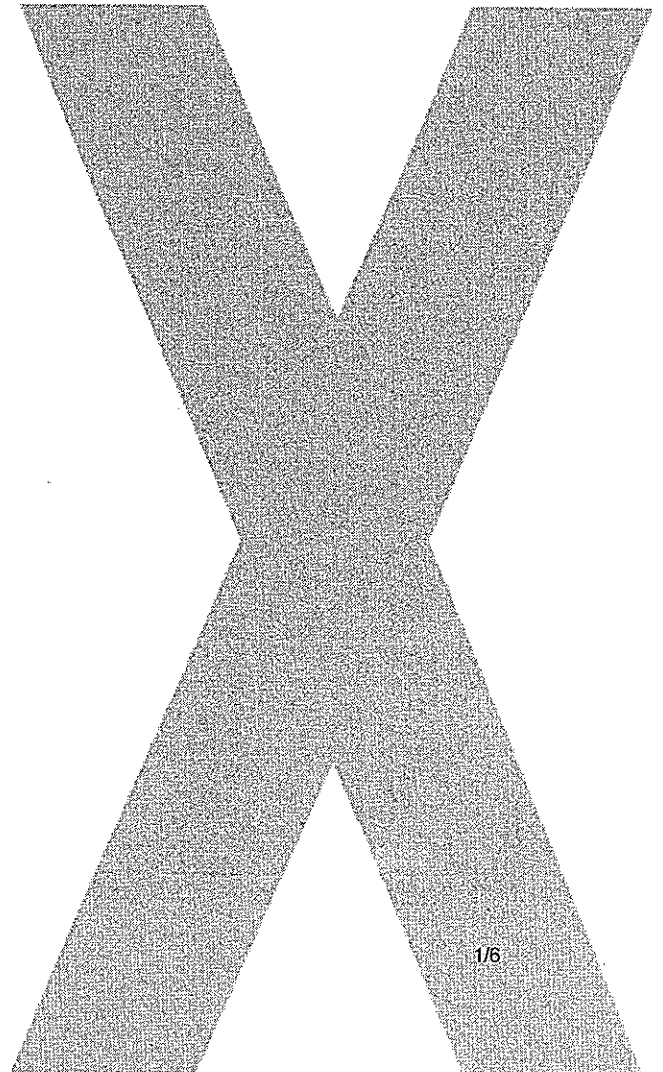




Product Information

PREVENTOL[®] BIT 20 N

In-can preservative based on benzisothiazolinone





PREVENTOL[®] BIT 20 N

Uses

For the preservation of aqueous technical preparations such as polymer dispersions, aqueous coatings, plasters, synthetic adhesives, pigment slurries, concrete additives, metalworking fluids or cleaners and detergents.

Chemical and physical data

Composition:	liquid formulation of approx. 20 % 1,2-benzisothiazolin-3-one in dipropylene glycol/water
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Specification

The specification parameters can be found in the currently valid product specification.

Characteristic data*

Density (20 °C):	approx. 1.14 g/cm ³
Vapour pressure (20 °C): (50 °C):	19 mbar 65 mbar
Boiling point:	103 °C
Flash point:	undetermined (aqueous system)
pH (10 % in water):	11 - 13
Viscosity (20 °C):	approx. 268 mPas
Solubility:	miscible with water
Ignition temperature:	375 °C

*Characteristic data provide further information about the product and are not subject to constant monitoring. They are therefore not binding.

Storage

Stored properly in sealed original containers, the product has a shelf life of 1 year. Avoid storage temperatures below - 10 °C or above 40 °C.

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Spectrum of activity

Minimal inhibitory concentration (MIC) in ppm of Preventol® BIT 20 N in agar medium.

Bacteria	
Alcaligenes faecalis	< 10
Bacillus subtilis	< 50
Corynebacterium	< 10
Enterobacter cloacae	< 100
Escherichia coli	< 10
Proteus vulgaris	< 250
Pseudomonas aeruginosa	< 250
Pseudomonas fluorescens	< 20
Staphylococcus aureus	< 50
Mould fungi	
Alternaria tenuis	< 100
Aspergillus niger	< 500
Chaetomium globosum	< 500
Penicillium brevicaulis	< 200
Sclerophoma ptyophila	< 100
Yeasts	
Candida albicans	< 250
Rhodotorula rubra	< 500



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Applications

Preventol® BIT 20 N is an aqueous/glycolic preparation of the biocidal active ingredient benzisothiazolinone, and has a broad spectrum of activity against bacteria, mold fungi and yeasts. In the form supplied, Preventol® BIT 20 N has a light-yellow to yellow color, which is particularly advantageous for applications in which the risk of discoloration must be ruled out. The good water miscibility of this preservative enables simple and problem-free incorporation in the concentration ranges recommended for preservation. In case higher amounts have to be added (e. g. into metalworking fluids concentrates) it is recommended to check for compatibility by pre-trials in the lab. Preventol® BIT 20 N can be used over a wide pH and temperature range (up to pH 14 / T approx. 100 °C) and thus permits broad and flexible use. In many cases, it can be added at an early phase of the production process in order to benefit from the positive influence of a preservative on process hygiene right from the outset. In this context, even if subsequent heating takes place, loss of active ingredient generally need not be anticipated due to the low volatility and good thermal stability of benzisothiazolinone. For the purpose of achieving a reliable and uniform effect, homogeneous distribution in the products to be protected must be ensured. This must be achieved by taking suitable measures in production (stirring, agitating, circulating, etc.).

Suggested additions in % by weight

Percentage of Preventol® BIT 20 N in the finished product to be preserved:

Emulsion paints	0.05 - 0.25
Polymer dispersions	0.05 - 0.25
Glues and adhesives	0.05 - 0.25
Cleaners, detergents	0.05 - 0.20
Concrete additives	0.1 - 0.25
Metalworking fluids	0.05 - 0.25*
Pigment slurries	0.02 - 0.15

*calculated on ready-to-use dilution

The required added quantities depend on various factors, particularly the nature and sensitivity of the product to be preserved, the pH value, the initial microbial content, the extent of expected contact with microorganisms and the envisaged duration of storage. The quantity of biocide required can be optimized by taking additional hygienic measures during production, storage and transport of the preserved product.



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On account of the numerous preservation problems that occur in practice, it is advisable to conduct preliminary trials for new applications in order to test compatibility, stability and biological effectiveness. Our Technical Service Laboratories would be happy to provide assistance with such tests.

Legal regulations require labeling when exceeding a limit value of 500 ppm of benzisothiazolinone (referred to the active ingredient) in the products to be protected. This requirement must be observed when adding Preventol® BIT 20 N in quantities of over 0.25 %.

Registration / Approval / Recommendation

Germany:

The active ingredient in Preventol® BIT 20 N, 1,2-benzisothiazolin-3-one, is listed:

- in Recommendation XIV of the Plastics Commission of the German Federal Institute for Risk Assessment (BfR)*
- in Recommendation XXXVI of the Plastics Commission of the German Federal Institute for Risk Assessment (BfR)*

* Bundesinstitut für Risikobewertung, formerly BgVV

USA:

The active ingredient in Preventol® BIT 20 N, 1,2-benzisothiazolin-3-one, is listed in the following FDA approvals:

- § 175.105 - Polymer-based adhesives in indirect contact with foodstuffs
- § 176.170 - Paper and cardboard in contact with moist and fatty foodstuffs
- § 176.180 - Paper and cardboard in contact with dry foodstuffs
- § 176.300 - Slimecides

Up-to-date information on the registration status of our products can be obtained from:

LANXESS Deutschland GmbH
Business Unit Material Protection
Regulatory Affairs
51369 Leverkusen / Germany
Fax: (+49 214) 30-7 23 39



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Precautions

Avoid skin contact with Preventol® BIT 20 N as well as the inhalation of vapors. The precautions generally recommended for handling chemicals must be observed, e.g. wearing of protective clothing, safety goggles and protective gloves. If the product comes into contact with the skin, the affected area should be washed immediately with plenty of water and soap; splashes in the eyes should be rinsed out immediately with plenty of water. If irritation persists, medical attention should be obtained. Contaminated clothing should be changed immediately.

The current safety data sheet should be observed. This contains further information on labelling, transport and storage as well as information on handling, product safety, toxicity and ecology.

Use biocides safely. Always read the label and product information before use.

Labelling

This product information must be used in conjunction with section 15 of the currently valid safety data sheet for the product which indicates labelling according to the German Hazardous Substances Regulation and the corresponding EU Directive.