

Technical Data Sheet

NIPACIDE® BIT 20

CLARIANT INDIA LTD.

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Maharashtra, IndiaBUSINESS UNIT INDUSTRIAL &
CONSUMER SPECIALTIESwww.ics.clariant.com
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Wet State Preservative for industrial water based products.

Composition	Glycol based solution of 1,2-benzisothiazolinone (BIT)
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Product properties ¹

Appearance (Colour)	Beige to Brown
Appearance (Form)	Clear liquid
pH (10% aq. solution)	12.00 – 13.20
Specific Gravity (20°C)	1.180 – 1.240
Active substance (BIT)	19.00 – 21.00 %

Description

Nipacide® BIT 20 is a glycol based liquid formulation of approximately 20% BIT. It is a low toxicity biocide for the complete in-can microbiological protection of industrial water based products against bacterial and fungal spoilage in the wet state.

It is effective over a wide pH and temperature range and exhibits good long term protection against microbial contamination in various applications.

Application

Nipacide® BIT 20 is recommended for the preservation of a wide range of applications including water based adhesives, polymer emulsions, water based decorative paints, pigment slurries, metal working fluids, sealants and tile grouts, household products, printing inks, car care products and concrete admixtures where protection against fungi and bacteria is required in the wet state. As it is a glycol based formulation it can also be used for solvent based systems.

It is effective against a wide range of common spoilage organisms including gram positive and gram negative bacteria, yeast and fungi.

It can be used over a wide pH and temperature range and is the biocide of choice for products with pH >8 and production temperatures up to 100°C.

¹ These characteristics are for guidance only and not to be taken as product specifications. The tolerances are given in the product specification sheet. For further product properties, specifications, safety and ecological data, please refer to the MSDS.

Compatibility

Nipacide® BIT 20 is compatible with most raw materials used in the manufacture of industrial water based products. However it is recommended that the compatibility of Nipacide® BIT 20 with the application should always be checked and evaluated before use.

Solubility

Soluble in Water.

Use Level

Nipacide® BIT 20 should be evaluated in finished products at levels between 0.1 % and 0.25 % based on the total weight of the finished product.

The dosage required to adequately preserve the product depends on various factors including the nature and susceptibility of the product to microbial degradation, initial microbial content in the product, processing and storage conditions. It is recommended to conduct trials for new applications to assess the performance of the biocide in the product in terms of stability, compatibility and biological effectiveness.

Incorporation

Nipacide® BIT 20 is recommended to be added at the start of the production process to combat any microbial contamination of the raw materials and process waters and to ensure process hygiene. Due to its wide pH and temperature stability range it is not affected by pH and temperatures likely to occur during processing. Nipacide® BIT 20 should be homogeneously mixed into the formulation to ensure optimum dispersion and performance.

Microbiological Data

Nipacide® BIT 20 exhibits a broad spectrum of activity which is demonstrated by the following MIC values* against some common microorganisms associated with wet-state spoilage:

<u>Organism</u>	<u>MIC (ppm)</u>	<u>Organism</u>	<u>MIC (ppm)</u>
Bacteria:		Fungi:	
<i>Pseudomonas aeruginosa</i>	300	<i>Aspergillus niger</i>	200
<i>Pseudomonas putida</i>	250	<i>Penicillium mineoluteum</i>	150
<i>Proteus vulgaris</i>	25	<i>Fusarium solani</i>	100
<i>Escherichia coli</i>	25	<i>Geotrichum candidum</i>	250
<i>Staphylococcus aureus</i>	25	Yeast:	
		<i>Candida albicans</i>	100

* MIC values should only be used for relative comparisons. Practical use concentrations are generally much higher.

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Storage and Shelf Life

Nipacide® BIT 20 must be stored in the original container, tightly closed in a well ventilated place, away from heat and direct sunlight.

The shelf life is 720 days under recommended storage conditions in sealed original containers.

Safety

Please see Material Safety Data Sheet before handling the material.

Packaging

25 L Jerrican, 210 L polyethylene drums, 1000 L IBC

Clariant Technical Service

Clariant technical service staff is available to assist customers in the determination of the optimum use level of biocide required to fully protect their product. The staff is on hand to assist customers with all technical enquiries relating to product protection. Full microbiological efficacy testing is available at the Clariant Microbiology Laboratory including wet-state and dry-film challenge tests, post-treatment of contaminated products, modified diffusion tests and plant hygiene audits at customers' production facilities.

Regulatory Support

Various regulations may be applicable to our products and their possible applications to safeguard human and environmental health. These regulations may vary depending on factors like end use, country or region of use, components of products, etc. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change. We have a dedicated function, Product Stewardship-India, to take care of regulatory aspects of the products marketed by Clariant-India. You are requested to kindly check with us concerning compliance of our products with respect to various regulations.

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

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