

The power of three...

Nuosept™ BMc 412 preservative

Preservative for water-based products: Three actives for broader spectrum, better performance

Nuosept BMc 412 preservative combines three isothiazalone active ingredients to boost antimicrobial activity across a broad spectrum of mold, yeast and bacteria in water-based products. Offering the best of each active ingredient — BIT, MIT and CMIT — Nuosept BMc 412 preservative spans a broader spectrum of activity than standard BIT/MIT preservatives, with better and faster control.

Functional preservatives at the proper concentration prevent microbial attack and subsequent wet-state degradation in water-based products. At Ashland, we designed Nuosept BMc 412 preservative to protect susceptible raw materials as well as finished products.

An in-can preservative, BMc 412 biocide blend is active from pH 2 to pH 10. At pH levels higher than 8.5, CMIT acts as a booster during production, increasing performance at a lower level of biocide.

A milky green dispersion, BMc 412 preservative has no formaldehyde and no organic solvents. It is typically used in emulsion paints, resins and adhesives, dispersion, cleaning and household products, acrylic binders and starch preparations. Typical use levels range from 0.05 percent and 0.5 percent by weight.

While BMc 412 preservative can be added at any point in the production cycle, we recommend adding it at as early a stage as possible in the manufacturing process. Early addition assures good distribution and imparts antimicrobial activity throughout the formulation process. We also recommend testing Nuosept BMc 412 preservative at several use levels to select the appropriate level for your application. To arrange for microbiological testing of your product to determine optimum use levels, contact your Ashland Specialty Ingredients representative or email us at: coatingsadditives@ashland.com.

Features and Benefits

- Three complementary active ingredients: BIT, MIT and CMIT
- Blend delivers best performance of each AI
- Broader spectrum of antimicrobial activity than MIT/BIT blends
- Active over a broad spectrum of pH (2 to 10)
- CMIT booster at pH higher than 8.5
- Fast control, more control
- No formaldehyde, no VOC



ASHLAND®

With good chemistry great things happen.™

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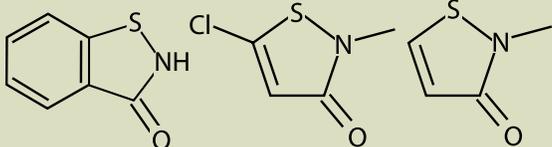
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Table 1: Typical Properties

Chemical structure	
Chemical name	1,2-benzisothiazol-3(2H)-one (BIT); 2-methyl-2H-isothiazole-3-one (MIT); 5-chloro-2-methyl-2H-isothiazol-3-one (CMIT)
Formula	C ₇ H ₅ NOS; C ₄ H ₅ NOS; C ₄ H ₄ ClNOS
Description	Milky greenish dispersion
Specific gravity (H ₂ O = 1)	Approx. 1
pH	4-6
Percent active	12.7%
Volatile Organic Content	No VOC
Odor	Non-specific

Regulatory requirements governing the use, registration, and approval of industrial biocides around the world are continually changing and evolving.

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