

NUMBER 4883-1 (Supersedes 4883)

Nuosept™ 498G preservative

Preservative for Aqueous Products

EINECS No. 220-120-9 (BIT)

AICS Listed

EPA Registration No. 1529-34

Description

Nuosept 498G preservative is an aqueous dispersion of 1,2-benzisothiazolin-3-one (BIT). BIT is a non-metallic, non-chlorinated, formaldehyde free biocide.

Key Attributes

Nuosept 498G preservative offers many advantages.

- BIT (1,2-Benzisothiazolin-3-one) has a proven record of performance as a broad spectrum antimicrobial agent.
- Spectrum includes wide range of commonly occurring bacteria, yeast and fungi (see MIC data).
- Antimicrobial activity is not dependent on pH.
- Stable and effective over a wide pH range (4-12).
- VOC free
- Non-settling
- Freeze-thaw stable
- May be incorporated into a product during any step of the manufacturing process.
- Odorless, translucent, amber liquid that is broadly compatible with aqueous systems.

Applications and Usage Notes

Nuosept 498G preservative is recommended for use in:

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> • Emulsion paints • Oil-in water emulsions | <ul style="list-style-type: none"> • Ready-mixed cements • Ready-mixed wallboard compounds • Spackling compounds • Aqueous slurries, • Titanium dioxide slurries • Casein/rosin dispersions • Car care products- such as car washing products, car waxes, and silicone emulsions | <ul style="list-style-type: none"> • Textile spin-finish solutions • Pesticide formulations |
| <ul style="list-style-type: none"> • Tape joint compounds • Water-based adhesives • Grouts • Caulks • Home cleaning products- such as floor cleaners, floor waxes and polishes, surface cleaners, window cleaners, and dish detergents • Preservation of fresh animal hides and skins | | <ul style="list-style-type: none"> • Lattices • Leather processing solutions • Inks • Sealants • Laundry additives- such as liquid laundry detergents, fabric softeners, and stain removers |

Typical Product Properties

Active Ingredient: 1,2-Benzisothiazolin-3-one (BIT)	18.5 -19.5%
Physical Form	beige dispersion
pH (10% dilution)	4.5-6.5
Density	1.05 - 1.13g/cm ³
Boiling Point	100°C
Volatile Organic Content (ASTM method 6886-03)	No VOC

Antimicrobial Spectrum

Minimum inhibitory concentrations (MIC) were determined by serial dilution of Nuosept™ 498G preservative and are shown in the table.

Test Organism	MIC (ppm)
<i>Bacteria</i>	
<i>Bacillus subtilis</i>	30
<i>Enterococcus faecalis</i>	50
<i>Streptococcus epidermidis</i>	50
<i>Pseudomonas aeruginosa</i>	250
<i>Enterobacter cloacae</i>	150
<i>Enterobacter aerogenes</i>	150
<i>Escherichia coli</i>	15
<i>Xantomonas maltophila</i>	250
<i>Yeast</i>	
<i>Candida albicans</i>	40
<i>Saccharomyces cerevisiae</i>	140
<i>Rhodotorula sp.</i>	160
<i>Streptoverticillium</i>	100
<i>Molds</i>	
<i>Aspergillus niger</i>	190
<i>Aspergillus oryzae</i>	180
<i>Aureobasidium pullulans</i>	120
<i>Chaetomeum globosum</i>	50
<i>Gloeocladium virens</i>	180
<i>Penicillium sp.</i>	90
<i>Penicillium funiculosum</i>	50
<i>Talaromyces flavus</i>	90

Use Recommendation

The amount of Nuosept 498G preservative required to adequately protect a formulation is dependent on the susceptibility of the product to biodegradation and the combined bioburden of the raw materials and potential contamination sources of a product. Typical use level for pesticide formulations is 0.05% by weight. Our experience suggests that a 0.03-0.25% level of Nuosept 498G preservative by weight in the final formulation will protect aqueous products. The use level should not exceed 0.5% for any application. It is recommended that the selection of biocide use level be based on an evaluation of Nuosept 498G preservative at a ladder of concentrations in the product. To arrange for microbiological testing of your product, contact your Ashland representative.

Packaging Information

Product	Physical Form	Pkg Type	Net Wgt (lbs)	Net Wgt (kgs)
Nuosept™ 498G	Liquid	HDPE Pail	40 lbs	18.1 kg
Nuosept 498G	Liquid	Steel Drum	450 lbs	204.1 kg
Nuosept 498G	Liquid	HDPE IBC	2000 lbs	907.2 kg

Product Safety Information

For health and safety data and handling, storage and disposal procedures, please refer to the Safety Data Sheet (SDS) and product label.

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

All statements, information and data presented herein are believed to be accurate and reliable, but are not to be taken as a guarantee, an express warranty, or an implied warranty of merchantability or fitness for a particular purpose, or representation, express or implied, for which Ashland Inc. and its subsidiaries or affiliates assume legal responsibility. It is the customer's responsibility to ensure that its use of industrial biocidal products is in accordance with all applicable laws and regulations. In addition, customers are strongly advised to confirm that the industrial biocide they are purchasing has all necessary regulatory approvals for the intended use and the country where the product is going to be used.

To learn more, visit ashland.com

EMAIL: specialtiessolutions@ashland.com

CHINA Tel: +86 212402 4888 DUBAI Tel: +9714 3818512 INDIA Tel: +91 22 61484646
 MEXICO Tel: +52 55 52 76 6121 SINGAPORE Tel: +65 6775 5366
 SWITZERLAND Tel: +4152 560 55 00

ASHLAND.