



## CANGUARD BIT 20 DPG Preservative

CAS Reg. No. 2634-33-5

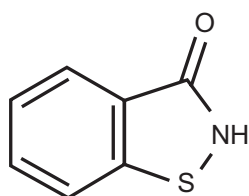
EINECS No. 220-120-9

U.S. EPA Reg. No. 49403-14-464

### General

CANGUARD™ BIT 20 DPG Preservative is a relatively low toxicity, broad spectrum, non-formaldehyde biocide developed for the protection of industrial water-based products against bacteria, yeasts and fungi. CANGUARD BIT 20 DPG Preservative is stable under alkaline conditions and can be used to preserve oil-in-water emulsions, polymer latex and emulsion systems, water-based paints, coatings, adhesives, textile spin-finish solutions, and for bacterial control in the paper-making process. CANGUARD BIT 20 DPG Preservative is a glycol-based solution of 1,2-benzisothiazolin-3-one.

### Structure



### Physical Properties

The following are typical physical properties of CANGUARD BIT 20 DPG Preservative; **they are not to be considered product specifications.**

Appearance: .....	Clear beige to brown liquid
pH (neat): .....	>12.0
Solubility in water (20°C/68°F): .....	Miscible
Solubility in oil: .....	Miscible
Boiling point: .....	97°C/206°F
Freezing point: .....	<-15°C/5°F
Viscosity (25°C/77°F): .....	200-400 centipoise
Density (20°C/68°F): .....	1.12-1.16
Stability: .....	Light stable
pH Compatibility: .....	2-12

### Special Features and Benefits

- Suitable for preserving aqueous and water miscible chemicals and formulations
- Outstanding thermal stability
- Broad spectrum biocide against bacteria, yeasts, and molds
- Wide pH range (2-12)
- Often used at higher temperatures and under very alkaline conditions where other preservatives are ineffective
- Free from formaldehyde, 5-chloro-2-methyl-4-isothiazolin-3-one, halogens and phenolics
- Outstanding chemical stability and good compatibility with most raw materials or formulations

## Antimicrobial Activity

CANGUARD BIT 20 DPG Preservative has a broad spectrum of activity which includes these common spoilage microorganisms:

Microorganism	MIC (ppm)
<b>Bacteria</b>	
<i>Pseudomonas aeruginosa</i>	400
<i>Pseudomonas putida</i>	500
<i>Proteus vulgaris</i>	10
<i>Escherichia coli</i>	10
<i>Staphylococcus aureus</i>	50
<b>Fungi</b>	
<i>Aspergillus niger</i>	400
<i>Penicillium mineoluteum</i>	150
<i>Fusarium solani</i>	100
<i>Geotrichum candidum</i>	500
<b>Yeast</b>	
<i>Candida albicans</i>	150

## Applications/ Directions for Use

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

CANGUARD BIT 20 DPG Preservative is an effective preservative in most aqueous compositions. For protection against bacterial contamination, a concentration of CANGUARD BIT 20 DPG Preservative ranging from 0.02 to 0.35% is generally adequate. Typical applications and suggested concentration ranges are:

Product	CANGUARD BIT 20 DPG Preservative (% w/w)
Synthetic polymer emulsions: latexes based on acrylate, butadiene, PVA, styrene	0.04-0.09
Emulsion paints (in-can preservation)	0.04-0.25
Water-based adhesives: adhesives based on gelatin, latex, animal products, carboxymethyl cellulose (CMC) and derivatives	0.02-0.09
Paper coatings: including rosin dispersions, starch-based and carbon-based products	0.02-0.09
Oil-in-water emulsions: spin finish solutions (textiles)	0.04-0.18
Agricultural pesticide products	0.1-0.5

**Application uses are governed by country-specific approvals. Please check with your Dow representative for information on use for your individual requirements.**

## Regulatory Information

EPA 40 CFR 180.1001(d): Component (preservative) of agricultural pesticides  
FDA 21 CFR 175.105: Components of adhesives  
FDA 21 CFR 176.170: Components of paper and paperboard in contact with aqueous and fatty foods  
FDA 21 CFR 176.180: Components of paper and paperboard in contact with dry food  
FDA 21 CFR 176.300: Slimicides for manufacture of paper used in food contact applications  
FDA 21 CFR 177.2600: Rubber articles intended for repeated use

## Toxicology

May cause skin sensitization.  
Causes eye burns and severe skin irritation.  
*Note: For further information, refer to the Safety Data Sheet.*

## First Aid

- Inhalation: Move the exposed person to fresh air at once. Seek prompt medical attention.
- Ingestion: Immediately seek medical attention. Do not induce vomiting unless instructed to do so by a medical professional.
- Skin Contact: Remove contaminated clothing. Promptly wash contaminated area with plenty of soap and water for 15-20 minutes. Seek medical attention.
- Eye Contact: Promptly rinse eyes with water for 30 minutes. Remove contact lenses, if present, after the first 5 minutes and continue rinsing eyes. Seek medical attention.

*Note: For full details on first aid measures, please see the Safety Data Sheet.*

## Storage, Handling, and Disposal

CANGUARD BIT 20 DPG Preservative should be stored at temperatures within the range of 4 to 40°C (39 to 104°F). Containers should not be exposed to direct sunlight. Storage conditions should also be in conformance with applicable legal, fire, and insurance regulations.

When handling CANGUARD BIT 20 DPG Preservative directly, personal protection equipment including a rubber apron, suitable impervious full-length gloves and footwear, and chemical splash goggles should be worn. In the U. S., please refer to the product label for specific precautions and use directions.

Prior to disposal, the residual contents of CANGUARD BIT 20 DPG Preservative containers should be drained into the product to be preserved. A small quantity of CANGUARD BIT 20 DPG Preservative will likely remain in the container; this should be deactivated and drained to waste. To ensure that containers are not reused, they should be pierced before disposal.

## Product Stewardship

Dow encourages its customers to review their applications of Dow products from the standpoint of human health and environmental quality. To help ensure that Dow products are not used in ways for which they are not intended or tested, Dow personnel are willing to assist customers in dealing with ecological and product safety considerations. Contact your representative if you need any assistance or information. When considering the use of any Dow Chemical Company product in a particular application, review the latest Safety Data Sheet and country-specific product label to ensure the intended use is within the scope of approved uses and can be accomplished safely. Before handling any of the products mentioned in the text, obtain available product safety information and take necessary steps to ensure safety of use.

For further information visit our website:  
[www.dowbiocides.com](http://www.dowbiocides.com)  
or call:

United States and Canada: 1-800-447-4369 (phone)  
1-989-832-1560 (phone)  
1-989-832-1465 (fax)

Europe: 800-3-694-6367 (phone)  
32-3-450-2240 (phone)  
32-3-450-2815 (fax)

Pacific: 800-7776-7776† (phone)  
603-7958-3392 (phone)  
603-7958-5598 (fax)

Latin America: 55-11-5188-9555 (phone)  
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†except Indonesia and Vietnam

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