Microbial Control

ROCIMA™ 523 Biocide

Preservative for Aqueous Binder Dispersions and Other Technical Products

General

ROCIMA™ 523 Biocide is a liquid, universally usable combination of active ingredients for the in-can preservation of technical products.

The combined effect of the optimized ratios of the chemically different active principles of ROCIMA 523 provide excellent bacterial and fungal control and prevent the growth of resistant strains of microorganisms.

ROCIMA 523 contains active ingredients which, when used according to the dosage recommendations, are approved by BfR for the application field and meet the regulations of FDA.

ROCIMA 523 may be employed in binders for final products to be used in indirect food contact. ROCIMA 523 is a preparation of chloromethyl-/methylisothiazolone and bronopol.

Physical Properties

The following are typical properties of ROCIMA™ 523 Biocide; **they are not to be considered product specifications.**

Appearance:	Colorless to yellowish, clear liquid	
Odor:	Weak, typical	
Density $d\,\frac{20}{4}$:	1.092 ± 0.01 g/mL	ISO 2811-3
Refractive Index $n\,\frac{20}{D}$:	1.360 ± 0.005	ASTM D 1218-02
Viscosity η 20°C:	Max. 20 mPa.s	ISO 3219
pH (0.2% in tap water):	7.5 ± 1	AAM 9301
Flash point:	>100°C o.c. Cleveland	ISO 2592

Miscibility/Solubility

Forms clear solutions in all proportions with water, low alcohols, and glycol ethers.

Compatibility

ROCIMA 523 is compatible with most common binders. It is generally advisable to check compatibility prior to any application.

Stability

Temperature:	up to 40°C (short period to 60°C)
pH range:	4 to 9

Application and Activity

ROCIMA™ 523 Biocide has been developed especially for the preservation of aqueous dispersion and emulsion binders. However, it can also be used in technical final products, after a biological testing has been carried out.

ROCIMA 523 contains neither cationic nor phenolic substances. Therefore, it is particularly suited for use in products not compatible with these substances.

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ROCIMA™ 523 Biocide has a broad spectrum of activity. It is effective against gram-positive and gram-negative, aerobic and anaerobic bacteria together with various species of molds and yeasts.

ROCIMA 523 complies with several food contact legislations of the European Union and of the Food and Drug Administration (FDA) of the USA. For specific information please ask your local Dow representative or liaise with our Product Integrity Department.

The number of technical products being preserved with ROCIMA 523 is increasing steadily and it is not always possible to predict its suitability. The optimum use should be established by preliminary experiments. In critical cases, predilution with water is often helpful.

Dosage

For storage preservation of dispersions and dispersion paints only small amounts of ROCIMA™ 523 Biocide are required because of its good effectiveness. As a general guideline 0.1% on the total formula is sufficient. The dosage rates of an in-can preservative depend upon the degree of contamination and susceptibility of the raw materials of the formulation.

The following concentrations are recommended as a guideline only:

Paints	0.05 - 0.30%
Pastes, thickener solutions, glues, adhesives	0.10 - 0.33%
Plasters, binders	0.05 - 0.25%

Our Biological and Application Laboratories are at your disposal for the solution of microbiological problems.

As a further preventive measure against bacterial infections we advise to pay full attention to the cleanliness of storage and production facilities.

For regular cleaning and disinfection of manufacturing facilities, tubing, storage containers, etc., we recommend the use of a 0.5% solution in water of ROCIMA 101.

Handling and Storage

Handling

Please refer to the Safety Data Sheet (SDS) of this product for precise handling instructions.

The processing and use of industrial chemicals require adequate technical and professional knowledge.

In general, avoid eye and skin contact, wear safety goggles, gloves, and protective clothing. In case of eye or skin contact despite precautionary measures, wash immediately and thoroughly with plenty of warm water and obtain medical attention.

The legal requirements prevailing in your country, especially on working hygiene and in the avoidance of accidents, must be observed.

Storage

ROCIMA™ 523 Biocide should be stored in tightly closed original containers in a cool place above +5°C. At 0°C and lower temperatures crystallization can take place. If crystallization has been started, depending on the storage time below +5°C, a not easily re-dissolvable crystalline deposit will be formed. After warming up (max. 50°C) under stirring, if all crystals are dissolved, the product can be used without any loss in effectiveness.

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Product Stewardship

When considering the use of any Dow product in a particular application, review the latest Safety Data Sheet (SDS) and country-specific product label to ensure the intended use is within the scope of approved uses. Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products – from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including Safety Data Sheets (SDS), should be consulted prior to use of Dow products. Current Safety Data Sheets are available from Dow.

For further information visit our website:
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