

Product Information

Preventol® D 7

Liquid preparation of 5-Chloro-2-methyl-4-isothiazolin-3-one (CMIT) and 2-Methyl-4-isothiazolin-3-one (MIT)



Preventol® D 7

EPA Registration No. 39967-93

Uses

For industrial use as preservative to inhibit the growth of bacteria, fungi in aqueous compositions (including pesticide formulations), polymer emulsions, fountain solutions, inks and photoplate processing, paper mill process water, recirculating cooling water systems, recirculating electrodesposition systems, commercial photoprocessing systems.

Chemical and physical data

Active ingredient:	approx. 1.1 % 5-chloro-2-methyl-4-isothiazolin-3-one (CMIT) approx. 0.4 % 2-methyl-4-isothiazolin-3-one (MIT)
Product description:	clear yellow-green to pale blue solution

Specification

The specification parameters can be found in the currently valid product specification.

Characteristic data*

Density (68 °F / 20 °C):	1.018 - 1.030 g/cm ³
Boiling point (1013 hPa):	app. 212 °F / 100 °C
Flash point (Closed Cup):	>212 °F / >100 °C
pH (1 %):	4 - 6
Solubility:	soluble in water

*These items are provided as general information only. They are approximate values and are not considered to be part of the product specifications.

Storage

Product should be stored in the original sealed package.
Since Preventol® D 7 is an aqueous solution, appropriate measures should be taken to ensure temperature does not exceed 104 °F / 40 °C and does not freeze during the transport and storage. If stored properly, Preventol® D 7 has a shelf life of 1 year.

Preventol® D 7

Application

Preventol® D 7 is a microbicide containing a mixture of (1.5 % active) isothiazolinones. Preventol® D 7 has a broad spectrum of activity, is water soluble and compatible with most raw materials.

Preventol® D 7 will not adversely affect product physical properties or performance and should not impart odor or color to most final products.

Preventol® D 7 is readily incorporated into formulation and is compatible with surfactants and emulsifiers regardless of their ionic nature.

However, if higher temperatures (>104 °F / >40 °C) or pH values >9 are likely to occur during the manufacturing process, the product should be added at the end of the process or to the finished product. In this case take care to distribute the preservative uniformly in order to ensure homogeneous mixture of the product in the water. Since the Preventol® D 7 has a low viscosity, the product can be added directly or pre-dissolved in water.

Preservation

Preventol® D 7 provides broad-spectrum microorganism control in water-based systems. Preventol® D 7 is non-foaming, water-based product that is readily biodegradable after appropriate dilution.

Water Treatment

Preventol® D 7 is effective against bacteria that cause fouling and corrosion in industrial cooling water systems. Not only is Preventol® D 7 effective in controlling planktonic organisms, but the product will also aid in the control. Use of the appropriate level of biocide in the water system can help to maintain a sufficient water flow rate and heat exchange by reducing the microbial load in the system.

Slime Prevention

Preventol® D 7 is a broad spectrum bactericide including efficacy against slime forming bacteria. Slime forming bacteria are a major concern in industrial water systems because they can help with the formation of biofilms. The biocide can be added directly to the primary circuit, the machine chest or the headbox. If the system is extremely fouled, it is recommended that a shock treatment followed by a continuous at a lower dose rate. (See Direction for Use section for dosage levels) Badly fouled water systems should be cleaned prior to biocide treatment.

To obtain reliable and reproducible results, homogeneous distribution in the materials to be protected must be ensured by taking suitable measures in production (stirring, agitating, etc.).

As with any product, the use of this product must be tested (including field testing) prior to incorporating into finished product.

Preventol® D 7

Material Compatibility

Preventol® D 7 is compatible with high quality stainless steel. Compatibility tests are recommended for other metallic materials. Plastic materials like PVC, PE, HDPE, PTFE are compatible and suitable for the handling and storage of Preventol® D 7.

As with any product, use of the products mentioned in this publication in a given application must be tested (including field testing, etc.) by the user in advance to determine suitability.

Directions for use

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

The following guidance is given as an approximation for each use pattern, but field-testing is recommended to achieve optimum effectiveness.

Application	Dosage level**
Liquid Household Consumer, Industrial, Janitorial Products***	0.04 - 0.15 %
Semi-Solid/Solid household Consumer, Industrial, Janitorial Products***	0.04 - 0.15 %
Preservative for Aqueous Compositions***	0.05 - 0.33 %
Textile Processing Chemicals***	0.04 - 0.16 %
Paints and Coatings	0.043 - 0.16 %
Ultra Filtration Units and Non-Medical / Non-Potable Reverse Osmosis System***	0.001 - 0.033 %
Control of bacteria and fungi in carbon beds	0.001 - 0.033 %
For periodic RO membrane cleaning	0.40 - 1.0 lbs per 120 gallons of cleaning solution
Pigment and Mineral Slurries	0.043 - 0.167 %
Adhesives and Tackifiers	0.043 - 0.167 %
Polymer Emulsions	0.043 - 0.33 %
Building Materials	0.043 - 0.167 %
Paper Mill Process Water	0.44 - 1.5 lbs per ton (dry basis) of pulp or paper

Preventol® D 7

Industrial Recirculating Process Water Systems***

Application	Dosage Level**
Initial Dose	0.015 - 0.088 %
Subsequent Dose	0.0035 - 0.0219 %

Industrial Wastewater Treatment Systems and Sewage Systems***

Application	Dosage Level**
Initial Dose	0.015 - 0.088 %
Subsequent Dose	0.0035 - 0.0219 %

Recirculating Cooling Water Systems

Application	Dosage Level**
For noticeably fouled systems - Initial Dose	0.015 - 0.088 %
Maintain microbial control	0.0035 - 0.0219 %

Brewery Pasteurizer and Can Warmer Systems***

Application	Dosage Level**
For noticeably fouled systems - Initial Dose	0.015 - 0.091 %
Maintain microbial control	0.037 to 0.0226 %

Oil & Gas Fields Injection Waters***

Application	Dosage Level**
Initial Dose	58.0 - 116.8 lbs per 1000 barrels of water
Maintain microbial control	23.5 - 58.0 lbs per 1000 barrels of water

Air Washer Systems***

Application	Dosage Level**
Intermittent or Slug Feed	0.015 - 0.088 %
Maintenance Dose	0.0035 - 0.0219 %

Preventol® D 7

Air Washer - Continuous Feed Method***

Application	Dosage Level**
Initial Dose	0.015 - 0.088 %
Maintenance Dose	0.0035 - 0.0219 %

Recirculating Electrodeposition Systems*** - Tankside Addition****

Application	Dosage Level**
Initial Dose	0.067 - 0.233 %
Initial Dose of Paint Components	0.033 - 0.233 %
Subsequent Dose	0.033 - 0.10 %

Metal Cleaning Fluids***

Application	Dosage Level**
Metal cleaning concentration	0.043 - 0.167 %
For direct addition to fouled system (3-4 weeks period)	0.043 - 0.167 %

Commercial Photoprocessing Systems

Application	Dosage Level**
Initial dose- Noticeably fouled system	0.050 - 0.117 %
Maintenance Dose (once a week)	0.026 - 0.049 %

Photoplate processing, Fountain Solutions and Ink Components

Application	Dosage Level**
Photoplate processing, fountain solution and ink components	0.1 - 0.30 %
Fountain solution concentrates	Use dilution solution must be 0.1 - 0.3 %

Preventol® D 7

Metalworking Fluids

Application	Dosage Level**
Initial Dose - Noticeably fouled system	0.052 - 0.116 %
Maintenance Dose	0.026 - 0.116 %

**For detailed dosage instructions see Preventol® D7 EPA Label

*** Not For Use in the State of California

****Regardless of the means of incorporation of the biocide, the total concentration in the system should not exceed 2333 ppm Preventol® D7.

Registration / Approval / Recommendation*****

EPA Registration No. 39967-93

Up to date information on the registration status of our products can be obtained from:

LANXESS Corporation
Business Unit Material Protection Products (MPP)
Regulatory Affairs
111 RIDC Park West Drive
Pittsburgh, PA 15275-1112

*******Regulatory Compliance Information:** Some of the end uses of the products described in this bulletin must comply with applicable regulations, such as the FDA, NSF, USDA, and CPSC. If you have any questions on the regulatory status of these products, contact your LANXESS Corporation representative or the LANXESS Regulatory Affairs Manager in Pittsburgh, PA

Health & Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling the LANXESS products mentioned in this publication. For materials mentioned which are not LANXESS products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be followed. Before working with any of these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, *e.g., material safety data sheets and product labels*. Consult your LANXESS Corporation representative or contact the LANXESS Product Safety and Regulatory Affairs Department in Pittsburgh, PA.

Preventol® D 7

Precautions

Preventol® D7 is supplied as a clear low viscosity solution. When handling Preventol® D7, general recommendations for handling any chemicals should be observed, e.g. wearing of protective clothing, safety goggles and protective gloves. Skin contact and inhalation of vapors should be avoided. If the product comes into contact with the body, the affected area should be washed immediately with large amounts of soap and water (e.g. product that has been splashed in the eyes should be rinsed out immediately with plenty of water). If irritation persists, the affected individual should obtain medical attention. Contaminated clothing should be removed and properly cleaned or disposed.

The current safety data sheet should be observed. This contains further information on labelling, transport and storage as well as information on handling, product safety, toxicity and ecology.

8/8

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.

Note: The information contained in this bulletin is current as of the edition date. Please contact LANXESS Corporation to determine if this publication has been revised.

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