

Loxanol[®] MI 6301

(old: Dehygant[®] LFM)



general

Loxanol[®] MI 6301 is an in-can preservative for emulsion paints, emulsions and aqueous pigment pastes.

chemical nature

Nitrogenous heterocyclic compound, formaldehyde release agent

Properties

physical form

colorless to yellowish liquid

shelf life

subject to appropriate storage under the usual storage and temperature conditions, our products are durable for at least 2 years.

typical properties (no supply specification)

pH value (10% aqueous solution)	~ 11
active substance	~ 45%
refractive index (20°C, DIN 51423)	~ 1.415
density (20°C)	~ 1.09
cloud point (DIN 51583)	< 25°C
solubility in water, ethanol and ethyl glycol at 20°C	miscible in any ratio

Application

Loxanol® MI 6301 is an in-can preservative for emulsion paints, emulsions and aqueous pigment pastes. It prevents spoilage by microorganisms during storage.

In our microbiological laboratories we determined the inhibiting concentration of Loxanol® MI 6301 against a wide spectrum of microorganisms:

Test organism	Inhibiting concentration in %
staphylococcus aureus	0.05
escherichia coli	0.06
pseudomonas aeruginosa	0.07
mycobacterium phlei	0.05
candida albicans	0.175
trichophyton mentagrophytes	0.004
chaetomium globosum	0.08
aspergillus niger	0.15
aspergillus tamaritii	0.175
aspergillus flavus	0.07
aspergillus spec.	0.08
penicilium camerunense	0.20
penicilium luteum	0.175
penicilium spec.	0.15

Loxanol® MI 6301 can be used in a wide range of polymer dispersions or paints. However it is not recommended for use in casein paints or systems containing similar natural materials.

In case of high residual monomer content in vinylacetate based dispersions, Loxanol® MI 6301 may lead to discoloration. In this case, preliminary application tests are necessary.

Loxanol® MI 6301 is best incorporated during the pigment dispersion stage; this ensures good homogenization and also limits potential infection. However, it can also be post-added to the finished paint and in this case it should be dissolved in suitable solvents prior to incorporation with thorough stirring.

recommended concentrations

According to our experience the dosage level should be between 0.1 and 0.5% to the ready-made paint. However, the required dosage should be determined by tests taking local production facilities and conditions into consideration.

In any case, the following conditions should not be omitted: The vital factor for spoilage of emulsion paints is a microbial infection which may be introduced by air, water, pigments or other additives and depending on the circumstances the mixture of germs may vary widely.

The finished paint can provide a nutrient medium for microorganisms and it must be considered that polyvinylacetate and polyacrylates may be attacked by microorganisms; however, cellulose derivatives most frequently used for thickening purposes form a far better nutrient medium. The more cellulose derivatives are present in a given emulsion paint, the greater, as a rule, is the danger of a microbial decomposition.

Generally, one should endeavor to repeatedly clean all production equipment, thus preventing a built-up of bio films. By this means, satisfactory results may be obtained with a reasonable concentration of preservative.

storage

Slight haziness may occur if stored at low temperatures for extended periods. However, this haze has no effect on performance and can be cleared by simple heating to room temperature while stirring. At storage above 50°C Loxanol® MI 6301 may change its color.

Safety

When handling these products, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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