

# UNICAT MM

## PRESERVATIVE FOR COSMETICS

<b>Content</b>	Unicat MM is a preserving agent based on 5-chloro-2-methyl-isothiazolinone (MCI) and 2-methyl-isothiazolinone (MI) with 1.5% active components. It is available as an aqueous solution with magnesium salts added as stabilizers.																
<b>Analytical data</b>	See specifications.																
<b>Solubility</b>	Unicat MM is compatible with most cosmetic systems. It is highly soluble in water, so no decrease in concentration is experienced in emulsion on transfer to the oil phase. Chemical incompatibilities can, however, occur in contact with an alkaline medium or with nucleophiles and reducing agents. It is therefore recommended that tests for preservative load be performed for every application.																
<b>Storage</b>	5°C - 25°C (see safety data sheet)																
<b>Shelf life</b>	2 years (see specification)																
<b>Properties</b>	<p>Unicat MM exhibits a broad-spectrum effect against bacteria, yeasts and fungi. In artificial agar cultures the following minimal inhibition concentrations were measured:</p> <table><tr><td>Pseudomonas aeruginosa</td><td>0.03% - 0.07%</td></tr><tr><td>Pseudomonas cepatia</td><td>0.06% - 0.10%</td></tr><tr><td>Escherichia Coli</td><td>0.03% - 0.05%</td></tr><tr><td>Proteus spec.</td><td>0.04% - 0.05%</td></tr><tr><td>Aspergillus niger</td><td>0.05% - 0.08%</td></tr><tr><td>Penicillium glaucum</td><td>0.02% - 0.05%</td></tr><tr><td>Trichoderma viride</td><td>0.06% - 0.10%</td></tr><tr><td>Candida albicans</td><td>0.03% - 0.06%</td></tr></table>	Pseudomonas aeruginosa	0.03% - 0.07%	Pseudomonas cepatia	0.06% - 0.10%	Escherichia Coli	0.03% - 0.05%	Proteus spec.	0.04% - 0.05%	Aspergillus niger	0.05% - 0.08%	Penicillium glaucum	0.02% - 0.05%	Trichoderma viride	0.06% - 0.10%	Candida albicans	0.03% - 0.06%
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<b>Use</b>	Unicat MM has a broad range of applications.																
<b>Recommended Concentration</b>	0.05 - 0.1%.																
<b>Processing</b>	<p>Unicat MM can be added at any stage of production for products prepared cold. Where products are prepared hot, it should be incorporated during the cooling phase below 60°C.</p> <p>Any alkaline medium should be avoided even during the production phase.</p> <p>When used with surfactants or with anionic polymers (e.g. Carbopol types), the high content of electrolytes must be considered. Influence on the viscosity of the final product is possible.</p>																

# UNICAT MM

## Identification

INCI Monograph ID	INCI Name	Chinese Name	CAS No.
1602	Methylchloroisothiazolinone	甲基氯异噻唑啉酮	26172-55-4
1618	Methylisothiazolinone	甲基异噻唑啉酮	2682-20-4

## EU Annex VI, Part 1 –

### LIST OF PRESERVATIVES WHICH COSMETIC PRODUCTS MAY CONTAIN.

Updated through the Commission Directive 2007/22/EC of 02/01/2010

EU Reference#: 39

EU Designation: Mixture of 5-Chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one with magnesium chloride and magnesium nitrate

CAS Number(s): 2682-20-4, 55965-84-9, 26172-55-4

INCI Name(s): Methylchloroisothiazolinone, Methylisothiazolinone

Status: allowed

Maximum Authorized Concentration:  
0.0015% (of a mixture in the ratio 3:1 of 5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one)

Limitations and Requirements: None

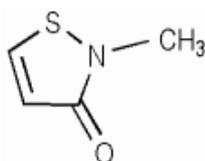
Conditions Of Use and Warnings Which Must Be Printed On The Label: None

**Unicat MM:** Maximum allowed concentration in a finished product within the EU is 0.1% ("Leave-on" and "rinse-off").

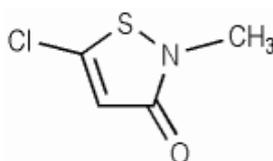
In USA MI/MCI may be safely used in "rinse-off" products at a concentration not to exceed 15 ppm (0.1% Unicat MM) and in "leave-on" cosmetic products at a concentration not to exceed 7.5 ppm (0.05% Unicat MM).

In Japan, 15 ppm (0.1% Unicat MM) are allowed only for "rinse-off" products, it is not approved for "leave-on" products.

The stated safe use concentration refers to a mixture containing  
23.3 % Methylisothiazolinone (MI) and  
76.7 % Methylchloroisothiazolinone (MCI).



MI



MCI