

DEHYDROACETIC ACID

INCI Dehydroacetic acid
CAS 520-45-6

SPECIFICATION

Appearance Crystalline powder
Odor Odorless
Assay (%) 99.0 min

GENERAL INFORMATION

Dehydroacetic acid is a preservative agent for cosmetics and toiletries. It is highly effective against fungi and yeasts and offers higher antifungal efficacy than many traditional preservatives.

Dehydroacetic acid is an organic compound classified as a pyrone derivative. It presents as an odorless, to white crystalline powder, almost insoluble in water and moderately soluble in most organic solvents

FORMULATION & RECOMMENDATIONS

Dehydroacetic acid can be added at room or elevated temperature and at any time during the manufacturing process, compatible in all types of formulations: anionic, non-ionic and cationic. Solubility values of Dehydroacetic acid on 100 g of solvent at 25°C.

Water	<0.1%
Acetone	22g
Benzene	18g
Methanol	5g
Ethanol	3g
Propylene glycol	1.7g
Ether	5g

Dosage level
Recommended concentration 0.1 – 0.6 %
(as preservative)

Solubility low solubility in water, soluble in a wide range of solvent

REGULATORY

ECOCERT/COSMOS	Allowed
NATRUE	Allowed

APPLICATIONS

Fragrances
Pharmaceuticals
Natural extracts

Cosmetics

- Skin care
- Hair care
- Make-up
- Oral care
- Baby care
- Sun care
- Toiletries

BENEFITS

- Can be used in ECOCERT/COSMOS formulations
- Easy to handle
- Good efficacy against molds and bacteria
- Stable and effective over a wide pH range compared to other acids

PACKAGING & SHELF LIFE

Available packaging
25 kg net carton boxes

Shelf life
24 months from date of production under recommended storage conditions

EFFICACY

Highly effective against fungi and yeasts, offers higher antifungal efficacy than many traditional preservatives

Below is a chart resuming the Minimum Inhibitory Concentration (MIC) of Dehydroacetic acid

Microorganism	MIC
Gram-negative bacteria	
Escherichia coli	1,00%
Pseudomonas aeruginosa	2,00%
Gram-positive bacteria	
Staphylococcus aureus	1,00%
Streptococcus lactis	1,00%
Fungi	
Aspergillus niger	0,02%
Penicillium notatum	0,02%
Yeast	
Candidas albicans	0,02%
Saccharomyces cerevisiae	0,02%

