

TECHNICAL DATA SHEET

Elix-KON DHA

INCI Dehydroacetic acid

CAS 520-45-6



SPECIFICATIONS

Appearance	Crystalline powder
Odor	Odorless
Assay (%)	99.0 min.

GENERAL INFORMATION

Elix-KON DHA is a preservative active ingredient widely used in cosmetic and toiletries formulations.

Elix-KON DHA is highly effective against fungi and yeasts and offers a stronger efficacy compared to many other traditional preservatives.

Elix-KON DHA is an odorless, colorless to white crystalline powder, almost insoluble in water and moderately soluble in most organic solvents.

The efficacy of Elix-KON DHA depends on the pH value of the cosmetic formulations (pH max. 6). The efficiency is increased by reducing the pH value. Only the free organic acid form has a preservative activity.

FORMULATION AND RECOMMENDATIONS

Elix-KON DHA can be added at room or elevated temperatures and at any time during the manufacturing process. Additionally, it is compatible in all types of formulations: anionic, non-ionic, and cationic.

Recommended use concentration

0.1% – 0.6% (as preservative active)

Solubility

Low solubility in water, soluble in a wide range of other solvents

EFFICACY

Elix-KON DHA is highly effective against fungi and yeasts, offers higher antifungal efficacy than many other traditional preservatives.

Below is an overview showing the Minimum Inhibitory Concentration (MIC) of Elix-KON DHA:

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 brasiliensis	0.02 %
Penicillium notatum	0.02 %
Yeast	
Candida albicans	0.02 %
Saccharomyces cerevisiae	0.02 %

BENEFITS

- Can be used for ECOCERT/COSMOS formulations
- Easy to handle
- Good efficacy against molds and bacteria
- Stable and effective over a wide pH range (but max. 6) compared to other acids

APPLICATIONS

Cosmetics

- Skin care
- Sun care
- Makeup
- Hair care
- Baby care
- Facial masks
- Oral care
- Wet wipes
- Toiletries

REGULATORY

ECOCERT / COSMOS	Approved
NATRUE	Approved

SHELF LIFE

12 months under proper storage conditions