

PRODUCT DATA

Everguard™ LAE-20

Sep 2021

Trade Name:	Everguard™ LAE-20
INCI Name:	Ethyl lauroyl arginate HCl, Glycerin
CAS No.:	60372-77-2, 56-81-5
EC No.:	434-630-6, 200-289-5

Typical Properties:

Item	Specification
Appearance(20°C)	Colorless to light yellow transparent sticky liquid
Odor	Characteristic odor
pH (1% in water)	3.0-5.0
Density (g/cm ³)	1.1700-1.2700
pH (25°C)	3.0-7.0

Introduction:

Everguard™ LAE-20 is based on a 20% solution of Ethyl lauroyl arginate HCl in glycerin.

Everguard™ LAE, a GRAS preservative, is synthesized from naturally occurring substance - lauric acid, L-arginine and ethanol. It combines a high antimicrobial efficacy with low toxicity, non-sensitizing and non-skin irritating features. It can provide smoothness to skin and hair because of its cationic nature. Due to its cationic surfactant chemical structure, the main characteristic of this molecule is a wide range of antimicrobial property against bacteria (such as Gram positive and Gram negative), moulds and yeasts. Additionally, Everguard™ LAE as food additive, offers a remarkable degree of safety.

Everguard™ LAE-20 is a multifunctional innovative product that can be used by the formulators as preservative in personal care products (creams, lotions, body milks, hair conditioners, etc) and as an active ingredient in soaps, antidandruff shampoos, deodorants and oral care products.

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MIC:

Bacterial strains	ATCC® Number	MIC(ug/mL)
<i>Staphylococcus aureus subsp. aureus</i>	ATCC 6538	32
<i>Escherichia coli</i>	ATCC 8739	64
<i>Pseudomonas aeruginosa</i>	ATCC 9027	64
<i>Aspergillus niger</i>	ATCC 25416	512
<i>Candida albicans</i>	ATCC 10231	256

Formulation guidelines:

- EverGuard™ LAE-20 is recommended in non-ionic or cationic systems for its full compatibility.
- EverGuard™ LAE-20 shows chemical stability at pH range between 3 to 7 and maintains its antimicrobial activity in this interval.

Recommended dosage:

- (1) Common personal care products, except makeup products, oral products and spray products: 0.25 - 2.0%;
- (2) Soap, dandruff shampoo and spray deodorant: 0.25 - 4.0%.
- (3) According to EU regulations, the maximum authorized concentration of LAE is 0.8% as a preservative. Everguard™ LAE-20 is a 20% glycerol solution of LAE, so the maximum concentration is 4.0%.

In general, it is recommended that Everguard™ LAE-20 is used with other preservatives. We have some anti-microbial plans for your reference as follows:

Application of Everguard™ LAE-20	
Mouth wash	2% Everguard™ LAE-20
	1% Everguard™ LAE-20 + 0.5% Potassium Sorbate
	1% Everguard™ LAE-20 + 0.1% Sodium Benzoate
Toothpaste	2% Everguard™ LAE-20 + 0.5% Potassium Sorbate
	2% Everguard™ LAE-20 + 0.1% Sodium Benzoate
	2% Everguard™ LAE-20 + 1% SuperGel™ MM003H
	3% Everguard™ LAE-20

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Body wash	1% Everguard™ LAE-20 + 0.3% Sodium Benzoate
	1% Everguard™ LAE-20 + 0.5% Potassium Sorbate
	1% Everguard™ LAE-20 + 0.5% Evermild™ CG
	1% Everguard™ LAE-20 + 3% Evermild™ PG
	1% Everguard™ LAE-20 + 3% Evermild™ HG
	1% Everguard™ LAE-20 + 3% Evermild™ EHG
	1% Everguard™ LAE-20 + 0.5% Everguard™ HP
Amino acid cleansing foam	1.5% Everguard™ LAE-20
Leave-on products like Serum, Toner, Lotion, Cream	1% Everguard™ LAE-20 + 0.3% Evermild™ CG

Storage: Store at room temperature with container sealed.

Package: 25kg/drum.

Retest date: 24 months from manufacturing date.

Important Note: At low temperatures, Everguard™ LAE-20 may appear cloudy due to reduced solubility, and it will resume upon gentle heating. Shake well after heating and before use to ensure uniformity. This phenomenon is normal and does not affect its use.