

TECHNICAL DATA SHEET

NOVAGUARD EHGP

Novaguard EHGP is a mild broad spectrum liquid blend for the preservation of personal care products. It is a blend of Phenoxyethanol and Ethylhexylglycerine. It is a paraben free alternative to traditional preservatives.

INCI Name :	Phenoxyethanol, Ethylhexylglycerine
Cas No :	70445-33-9, 122-99-6
EC No :	204-589-7, 408-080-2
Appearance:	Clear colorless liquid
Density (25°C):	1.07- 1.10 g/ml (approx)
Refractive index:	1.510-1.540 (25 °C)
PH Range:	up to 8.5
Odour :	Low
Flash Point:	> 100 °C
Shelf Life:	2 Years
HS Code:	29094990

Novaguard EHGP is a cosmetic preservative based on Phenoxyethanol and Ethylhexylglycerine. It has a broad, balanced spectrum of effect against bacteria, yeasts and mould fungi. The addition of Ethylhexylglycerine affects the interfacial tension at the cell membrane of microorganisms, improving the preservative activity of phenoxyethanol. Using Novaguard EHGP is particularly suitable for emulsions, oil and surfactant based formulations and may be used in aqueous formulations up to its solubility limit of approximately 1.0 %. Novaguard EHGP can be added to the formulation at temperatures up to 80 °C, prolonged heating at elevated temperatures is not recommended. No discolourations have been detected.

- Compatibility with most of the raw materials commonly used in the personal care industry
- Stability over a wide pH range: 3 - 9.
- Non-volatile liquid form, making it easy to handle.

Solubility of NOVAGUARD EHGP (w/w @ 25°C)

Water	1.00% (Max)
Ethanol	Soluble
Glycols	Soluble

Recommended Use: Under the Cosmetic Regulation, Novaguard EHGP can be used in cosmetic formulations up to a maximum concentration of 1.11 %. In practice emulsions are preserved with 0.5 - 1.0 % of Novaguard EHGP. For wet tissues good preservation results are achieved with 0.5 - 1.0% Novaguard EHGP.

Applications

- Haircare Shampoos, Conditioners and anti dandruff products
- Skin Care Creams, Lotions, liquid soaps, moisturizers and cold creams
- Sun Products Sunscreen lotions, sprays and cream
- Wipes Baby wipes and facial wipes
- Raw materials Surfactants, shampoos blends and conditioner blends

PACKAGING

25Kg Carboys, 200Kg Drums, 950 Kg IBC. Samples available in 50ml bottles for evaluation.

Storage & Handling

We recommend storage in the original packing at or below room temperature.

Transportation: Not classified as dangerous goods.

Minimum Inhibition Concentrations (MIC)

Test Organism	Concentration of Sample - Novagaurd EHG					MIC
	0.25%	0.50%	0.75%	1.0%	1.5%	
Pseudomonas aeruginosa	NG	NG	NG	NG	NG	< 0.25%
Escherichia coli	NG	NG	NG	NG	NG	< 0.25%
Staphylococcus aureus	NG	NG	NG	NG	NG	< 0.25%
Aspergillus niger	NG	NG	NG	NG	NG	< 0.25%
Candida albicans	NG	NG	NG	NG	NG	< 0.25%
Salmonella Typhi	NG	NG	NG	NG	NG	< 0.25%

NG : No Growth of Organism at the Concentration

Test Organism	Count at Zero hour	Count at 7th day	Count at 14th day	Count at 21st day	Count at 28th day
Pseudomonas aeruginosa	1.95 x 10 ⁵ cfu/g	< 10 cfu/g	< 10 cfu/g	< 10 cfu/g	< 10 cfu/g
Escherichia coli	1.92x10 ⁵ cfu/g	< 10 cfu/g	< 10 cfu/g	< 10 cfu/g	< 10 cfu/g
Staphylococcus aureus	1.68 x 10 ⁵ cfu/g	< 10 cfu/g	< 10 cfu/g	< 10 cfu/g	< 10 cfu/g
Aspergillus niger	1.80 x 10 ⁵ cfu/g	< 10 cfu/g	< 10 cfu/g	< 10 cfu/g	< 10 cfu/g
Candida albicans	1.70 x 10 ⁵ cfu/g	< 10 cfu/g	< 10 cfu/g	< 10 cfu/g	< 10 cfu/g
Salmonella Typhi	2.10 x 10 ⁵ cfu/g	< 10 cfu/g	< 10 cfu/g	< 10 cfu/g	< 10 cfu/g