Introduction BEG-800 (Ethylhexyglycerin)

BEG-800 (Ethylhexylglycerin) can be used in a broad range of cosmetic applications. BEG-800 is a very effective as an active component in deodorants due to its inhibiting effect on the growth of odor-causing bacteria.

BEG-800 enhances the antimicrobial efficacy of typically used preservatives by doing so enables lower concentrations of the cosmetic preservative in the formulation applied.

BEG-800 is not just a preservative but also a synthetic skin-conditioning agent.

BEG-800 improves the skin feel of cosmetic formulations and functions as emollient and mild humectant.

The skin-feel of BEG-800 can be compared to glycerin.

Advantages

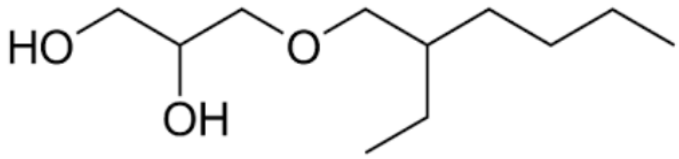
- Multi-functional Cosmetic ingredient.
- Skin care additive
- Medium spreading emollient
- Improves skin feel of cosmetic formulations
- Effective against odour causing Gram positive bacteria
- Booster of Cosmetic alcohols and glycols
- Enhancer for traditional preservative systems
- Boosting and fixating of fragrance(Perfumes) ingredients
- Highly Soluble in organic solvents

Chemical /Information on Ingredients

MSDS name	Ethylhexylglycerin
INCI name	3-(2-ethylhexyloxy) propane-1,2-diol
Model name	BEG-800
CAS number	70445-33-9

Chemical equation and molecular amount : $C_{11}H_{24}O_3$

204.31 g/mol



Specification

Appearance	Colorless clear Liquid
Odor	Nearly odourless
Purity (by GC)	Not less than 99%
Density(20°C)	0.950-0.960 g/ml
Flash Point	152 ℃
pH (25°C)	6 ~ 8
Boiling point	145°C
Ignition temperature	250°C
Melting point	Approx -76℃
Water Solubility	0.0112 mg/100ml at 25 ℃

Test results BEG-800(Ethylhexyglycerin)

▪ Table 1. **Booster for traditional preservative actives**

Carbomer Gel	%						
	0	1	2	3	4	5	6
Without preservation	-	+++ B,M	+++ B,M	./.			
+ 0.1% BEG-800	-	+++ M	+++ B,M	./.			
+0.9% Phenoxyethanol	-	+++ B	+++ B,Y	./.			
+100ppm Methylisothiazolinone	-	+++ M	+++ B,M	./.			
+0.2% Methylparaben	-	+++ B,Y	+++ B,Y	./.			

Legend :

0 = Sterility Control
B = Bacteria
M = Moulds
Y = Yeasts

\- = Free of microbial growth
\+ = Slight growth
++ = Moderate growth
+++ = Massive growth

☞ **BEG-800 improves the antimicrobial efficacy of traditional preservative actives such as phenoxyethanol, methyisothiazolinone and methylparaben.**

▪ Table 2. **Booster for cosmetic alcohols and glycols**

O/W Lotion	Inoculation Cycles						
	0	1	2	3	4	5	6
Without antimicrobial Stabilisation	-	+++ B,Y,M	+++ B,M	./.			
+ 5.0% Pentylene glycol	-	+++ M	+++ M	./.			
+0.5% BEG-800	-	+++ B,M	+++ B,M	./.			
+ 0.7% Caprylyl glycol	-	+++ B,Y	+++ B,Y,M	./.			
+ 0.3% BEG-800	-	+++ B,Y,M	+++ B,Y,M	./.			

☞ **BEG-800 improves the antimicrobial efficacy of pentylene glycol and caprylyl glycol.**

General remarks

- BEG-800 is stable to hydrolysis, Temp. and pH. Chemically stable Whereas Glycerin esters are attacked by lipolytic enzymes BEG-800 is effective in pH-ranges up to 12
- BEG-800 can be used as skin care additive and deodorant active in a recommended use concentration of 0.3 ~ 1.0 %

Packing

- 15kg Tin Can

Shelf life and Storage conditions

- Unopened container, dry, 10 to 30℃ storage : 36 months

Head Office

B&B's professional technicial service staff gives a definite Answer to your technicial questions and assistance.

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