



Elix-CARE PDO PF

INCI Propanediol
CAS 504-63-2

SPECIFICATIONS

Aspect Colorless liquid
Color (APHA) 10 max
Water content 0,1% max

REGULATORY

ECOCERT/COSMOS Approved
Natural Index 1
(according to ISO 16128)

GENERAL INFORMATION

Elix-CARE PDO PF is a high purity ingredient produced from 100% renewable, GMO-free sources. It can be used as a solvent, emollient, humectant and/or antimicrobial agent as well as a carrier for active ingredients in cosmetics and personal care products.

FORMULATION & RECOMMENDATIONS

Elix-CARE PDO PF is palm-free product made from natural glucose and is an excellent natural alternative to petroleum-based Glycols such as Propylene Glycol, Butylene Glycol or Methyl-Propanediol.

Pure Elix-CARE PDO PF has a pH near 7. Even at a concentration higher than 70% no skin irritation or sensitization occurs.

Compared to standard glycols, Elix-CARE PDO PF gives better performance in both skin moisturization (no stickiness and filming, soft feeling) and hair moisturization (higher water absorption, increased smoothness and softness).

Elix-CARE PDO PF works synergistically with Glycerin to provide a long-lasting moisturizing effect. Actives such as Allantoin, Glycolic Acid and various other antioxidants show a high solubility in Elix-CARE PDO PF and better performance compared to water-based solutions.

Its polar character, mediated by the two hydroxy substituents, gives it unlimited solubility in water.

Recommended concentration
2-10% (as a booster)

Solubility
Fully soluble in water in all proportions

We suggest adding the recommended concentration at the water phase of your formulation.

BENEFITS

- Produced from 100% renewable sources
- GMO-free
- Palm-free
- Excellent booster for preservative system
- Improves moisturizing efficiency
- Not skin sensitizing or irritating
- Excellent sensory profile

APPLICATIONS

Fragrances
Pharmaceuticals
Natural extracts

Cosmetics

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

SHELF LIFE

24 months under proper storage conditions

EFFICACY

Elix-CARE PDO PF is not considered a preservative by itself, but can act as a preservative booster in many preservative systems. The pure product shows antibacterial activity as shown below:

Bacteria	Concentration (CFU/ml)	Antibacterial rate (%)	Evaluation
Staphylococcus aureus	6.9 x 10 ⁵	94.2	Significant
Escherichia coli	7.8 x 10 ⁵	>99.9	Significant

Test Method

Hygienic standard for disposable sanitary product GB 15979-2002

Elix-CARE PDO PF is an efficient booster, especially in Phenoxyethanol and Benzyl Alcohol based formulations against bacteria (both gram positive and negative) and yeasts. The use of Elix-CARE PDO PF can significantly reduce the amount of preservatives required in the formulation.

