

TECHNICAL DATA SHEET

Elix-CARE PDO PF

INCI Propanediol

CAS 504-63-2



SPECIFICATIONS

Appearance	Colorless liquid
Color (APHA)	10 max
Water content (%)	0.1 max

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 AND RECOMMENDATIONS

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

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 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 preservative booster)

Solubility

Fully soluble in water in all proportions

EFFICACY

Elix-CARE PDO PF is an efficient preservative 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.

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:

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

Test Method

Hygienic standard for disposable sanitary product GB 15979-2002

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
- Makeup
- Hair Care
- Toiletries
- Sun Care
- Baby care

SHELF LIFE

24 months under proper storage conditions

REGULATORY

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