MINASOLVE® is an affiliate of MINAFIN® Group

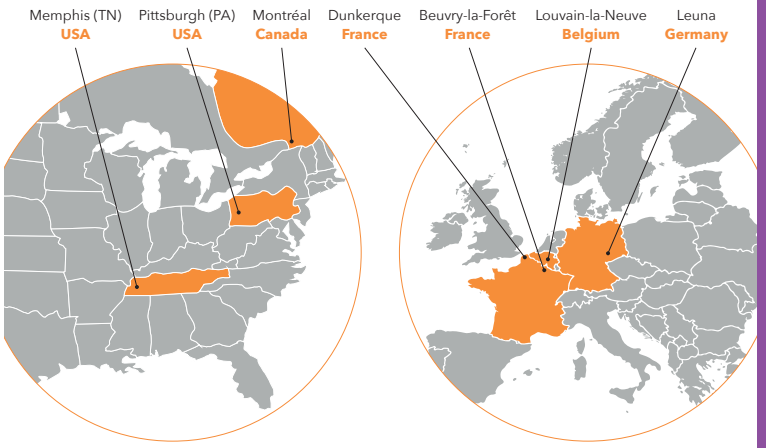
Created in 2004, The Minafin® Group is an expert in Health Chemistry, Green Chemistry and Challenging Chemistry. Activities include industrial subcontracting, development of chemical syntheses and industrial scale-up of custom-made processes as well as proprietary products with high added value for the pharmaceutical, cosmetics, agriculture and high-tech industries. Strong synergies exist between all business units: MINASOLVE, MINAKEM, PENNAKEM, PRESSURE CHEMICAL and MINASCENT.

Serving market leaders as well as emerging players we support our customers' efforts to improve the quality of life in the global community by:

- Improving our chemistry and operational excellence today
- Creating and innovating for tomorrow
- Driving our enterprises together to **go beyond expectations**

Specifications and Characteristics

INCI	Pentylene Glycol, Caprylyl Glycol
APPEARANCE	Clear, colourless liquid
ODOUR	Odourless or faint
MELTING POINT	< -20°C
SOLUBILITY	≤ 2% in water
RECOMMENDED pH OF USE	3.0 ▸10.0 (unlimited)
RECOMMENDED USE LEVEL	0.5 ▸ 2.0%
NATURAL ORIGIN INDEX	1 (ISO 16128)



300 M€ SALES

1050 EMPLOYEES

150 SCIENTISTS

7 PRODUCTION SITES

MINAFIN® GROUP

2024 04. V1.1

Eleen 58

UNIQUE MULTIFUNCTIONAL BIOBASED INGREDIENT

- *Synergistic cosmetic solvent*
- *Skin humectant*
- *100% biobased antimicrobial*
- *Efficient at low use level*

NATRUE APPROVED

COSMOS APPROVED

MINASOLVE®
BIO-INGREDIENTS FOR YOUR APPLICATIONS

green solving attitude.

WWW.MINASOLVE.COM

E-Leen 58 from MINASOLVE

E-Leen 58 is a **versatile multifunctional ingredient** that is sustainably sourced, **100% biobased**, as well as COSMOS and NATRUE approved.

E-Leen 58 is **colourless** and practically odourless and can be used for a wide range of applications :

Cosmetic solvent for hydrophilic and lipophilic substances:

- Dissolving **active ingredients**
- Stabilisation of **plant extracts**
- Particularly suitable for **polyphenols**

Skin friendly moisturiser

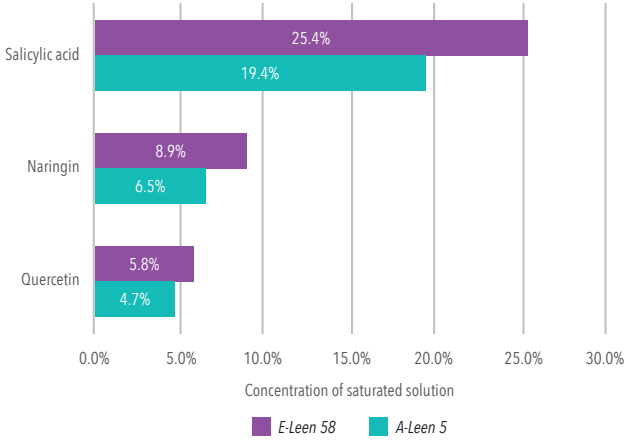
Preservative booster

- Fungistatic & highly effective against yeast and bacteria
- Suitable for neutral, acidic and alkaline pH
- Creates self-preserving formulations

Solvent properties

The components of **E-Leen 58** act synergistically as a cosmetic solvent. **Several hard to dissolve ingredients are readily soluble** in **E-Leen 58**. The observed solubilities are even higher than in the well-known biobased solvent Pentylene Glycol (A-Leen 5).

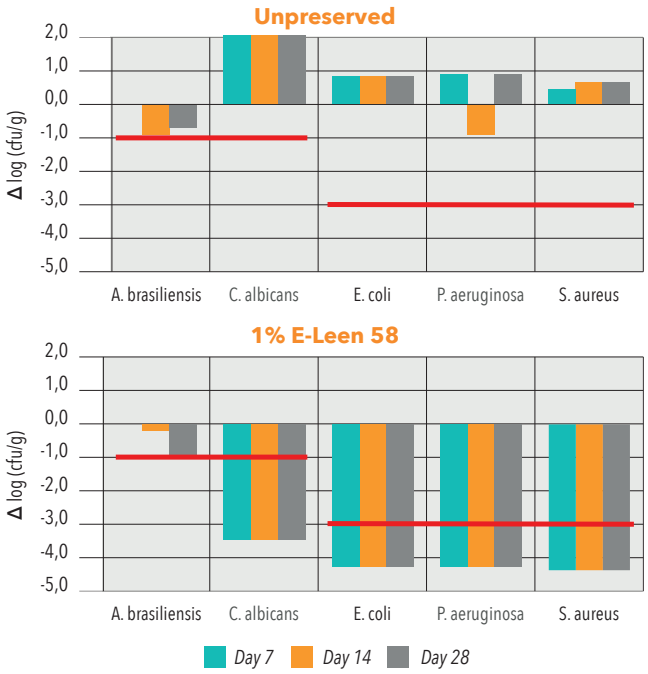
To compare the solvent properties, saturated solutions of active ingredients were prepared in **E-Leen 58** and A-Leen 5 at 20°C. The concentrations were determined by HPLC-UV analysis. **E-Leen 58** was found to be **particularly suitable for dissolving (poly)phenolic ingredients**, such as bioflavonoids:



E-Leen 58 shows **better solvent properties** than A-Leen 5.

Antimicrobial activity

Challenge test results (ISO 11930) in O/W emulsion, pH 5.5



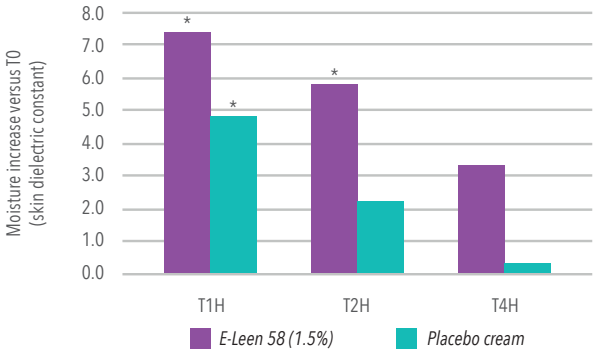
Phase	Raw material	INCI	%
A	Demineralized Water	Aqua	ad 100.00
	Xanthan Gum [1]	Xanthan Gum	0.50
B	Emulgade PL 68/50 [2]	Cetearyl Glucoside (and) Cetearyl Alcohol	5.00
	Shea Butter [3]	Butyrospermum Parkii (Shea) Butter	3.00
	Jojoba Oil [3]	Simmondsia Chinensis (Jojoba) Oil	3.00
	Hazelnut Oil [4]	Corylus Avellana (Hazel) Seed Oil	3.00
C	Bioxan T70 [5]	Tocopherol	0.10
D	E-Leen 58 [6]	Pentylene Glycol, Caprylyl Glycol	1.00
E	Citric Acid (50%)	Citric Acid (and) Aqua	ad pH 5.5

Raw material suppliers:
[1] Jungbunzlauer [2] BASF [3] Caesar & Loretz [4] Sanabio [5] BTSA [6] Minasolve

E-Leen 58 turned the formulation into a self-preserving product that **passed the challenge test with criteria A.**

Skin Hydration

Corneometry study over 4 hours - 1.5% E-Leen 58 in O/W emulsion, tested on 10 (female) volunteers



** Statistically significant moisturizing effect (WILCOXON TEST, P=95%)*

E-Leen 58 at 1.5% in an O/W emulsion **increases skin hydration** (statistically significant at 1 and 2 hours).

Applications

E-Leen 58 is compatible with all common cosmetic ingredients and can be added at any time during the formulation process. **Adding it at the end** of the process, for example after emulsification, **maximises the antimicrobial effect.**

E-Leen 58 is a **cold processable liquid** and can be heated up to **max. 130°C**. It is **compatible with low and high pH values.**

E-Leen 58 dissolves at 2% in demineralised water and is miscible with lower alcohols, polar oils and emollient esters. The addition of a solubiliser is recommended to obtained clear aqueous formulations.

The **antimicrobial boosting effect** of **E-Leen 58** is most pronounced in **emulsion-type** formulations. In surfactant-based products, **E-Leen 58** can be favourably combined with other water-soluble antimicrobial agents.

MINASOLVE
BIO-INGREDIENTS FOR YOUR APPLICATIONS

WWW.MINASOLVE.COM