



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.

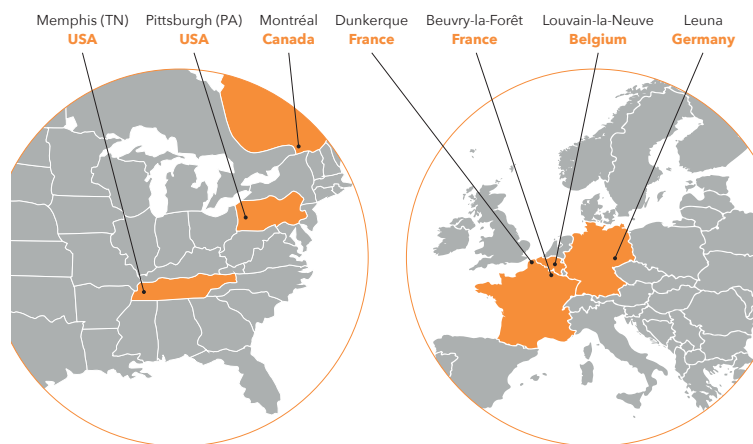
Serving market leaders as well as emerging players we support our customers' efforts to improve the quality of life in the global community by:

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

Specifications and Characteristics

INCI	Water, Pentylene Glycol, Cistus Ladaniferus Leaf/Stem Extract, Ascorbic Acid
APPEARANCE	Brown liquid
ODOUR	Characteristic, reminiscent of labdanum
RECOMMENDED pH OF USE	3.0 ▶ 6.0
RECOMMENDED USE LEVEL	0.5 ▶ 3.0%
TOTAL PHENOLIC CONTENT	> 4 g GAE/L
DRY MATTER CONTENT	2 ▶ 5.0%
WATER SOLUBILITY	partially soluble
ORIGIN	derived-natural
NATURAL ORIGIN INDEX	1 (ISO 16128)

The given information is accurate to the best of our knowledge. Buyers are advised to make their own studies on the usefulness of any product for a particular application or purpose. Recommended usage information is only provided as indication, and should not be considered as recommendations to use the products in violation of any patents, intellectual property rights, laws, or regulations relating, but not limited to, manufacture, composition, product design or end usage.



300
M€ SALES

1050
EMPLOYEES

150
SCIENTISTS

7
PRODUCTION SITES

MINAFIN
GROUP

2023.12. V3.1

Flora-Leen Cistus

THE PHOENIX FLOWER: A UNIQUE MULTIFUNCTIONAL ACTIVE COMPLEX

✓ **Advanced anti-aging actions***

- **Wrinkle depth: -15% crow's feet**
- **Skin firmness: +12%**
- **Skin elasticity: +9.7%**
- **Overall face wrinkledness improvement: 59%**



COSMOS
APPROVED



NATRUE
APPROVED



✓ **Soothing*: -23% skin redness after UV exposure**

✓ **Antioxidant: rich in natural polyphenols**

✓ **Environmentally friendly extraction process**

**In vivo report available upon request*

MINASOLVE
BIO-INGREDIENTS FOR YOUR APPLICATIONS

green solving attitude.

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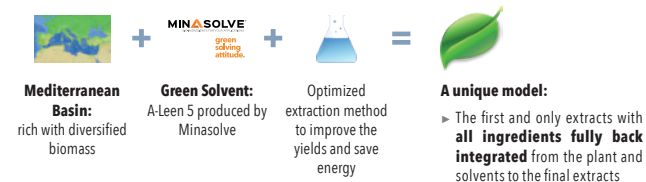


Flora-Leen Cistus ROCKROSE EXTRACT FROM MINASOLVE'S GARDEN

Eco-responsibility is at the heart of Minasolve's global strategy. Our mission is to continuously offer innovative products while ensuring respect for **people and the environment**.

Flora-Leen Cistus is the first in a series of novel extracts with **fully backward-integrated production** from the plant to the finished extract, including the solvent.

The **patented eco-extraction process** is based on a sustainable solvent system obtained by **upcycling waste** from food production. **Flora-Leen Cistus** thus combines high performance as a versatile skin care ingredient with sustainable production.



Cistus ladaniferus - The Phoenix Flower

The Rockrose *Cistus ladaniferus* is an extraordinary flower from the Mediterranean Basin with outstanding properties:

- ▶ Rich in precious ingredients and pleasant smell
- ▶ Wild culture: no irrigation or pesticides required
- ▶ Pyrophyte: with the ability to grow stronger after a forest fire
- ▶ Harvested manually
- ▶ Environmentally friendly culture

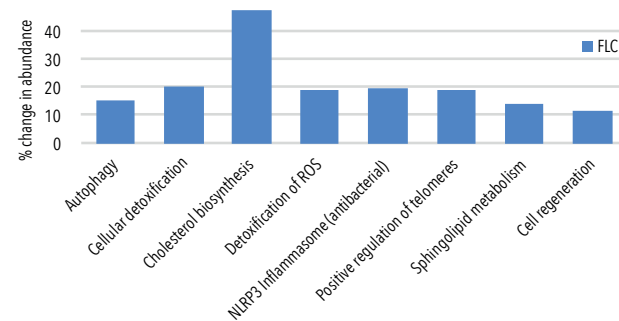
Eco-designed Process



The production of **Flora-Leen Cistus** fully complies with the principles of **green extraction**. Therefore, the extract can be fully considered an "eco-designed extract".

Anti-aging & Soothing Effect

Identification of the **beneficial biological activities** of **Flora-Leen Cistus** for use in dermo-cosmetics by measuring the changes in **protein expression in human skin explants** after application of **Flora-Leen Cistus** extract at a **concentration of 1%** (aqueous solution) in comparison with a reference solution (pure water).



FLC1: Flora-Leen Cistus at 1%
Data generated via proteomic assay

- Autophagy:** improvement of skin regeneration
- Cellular detoxification and Reactive Oxygen Species (ROS) balance:** reduction of oxidative stress
- Lipid metabolism:** important for skin maintenance
- Preservation of telomeres:** prevention of DNA aging

In Vivo studies

Anti-aging

40 volunteers, 45 -70 years old, crow's feet wrinkles
20 volunteers applied 1% **Flora-Leen Cistus** cream (vs 20 for placebo cream) once a day during 28 days

After 28 days of use, 1% **Flora-Leen Cistus** cream :

- ▶ **decreases crow's feet wrinkle depth** by 15%*
- ▶ **increases skin firmness** by 12%*
- ▶ **increases skin elasticity** by 9,7%*

Self-assessment

- ▶ smoother skin : 95,5%
- ▶ more moisturised skin : 90,9%
- ▶ more homogeneous skin : 90,9%

Soothing

Stinging test: 20 volunteers (M/F), sensitive skin (positive to stinging test), application of a 10% lactic acid aqueous solution
After a single application, 1% **Flora-Leen Cistus** cream:

- ▶ has **immediate soothing effect** (-24,7%*)
- ▶ **decreases skin discomforts** (-15,8%* vs placebo cream) after 1mn

UVA/UVB irradiations: 20 volunteers (M/F), phototype I to III, UVA+UVB irradiations (1,5 MED) on the back

- ▶ 30 mn after application, 1% **Flora-Leen Cistus** cream shows a **soothing effect** on the UV-induced skin redness (-23.3%* up T2h)

*statistically significant

Applications

Flora-Leen Cistus is **partially soluble in water** and **polar vegetable oils** and **miscible with alcohol**.

It is recommended to add **Flora-Leen Cistus** at the end of the formulation at a **temperature < 40°C**.

Flora-Leen Cistus is recommended for formulations with a **pH value ≤ 6**. The pH value should be adjusted to this range before adding Flora-Leen Cistus. If added at a higher pH value, irreversible discoloration may occur, which cannot be reversed by lowering the pH value.

Flora-Leen Cistus should not come into contact with **strong oxidizing agents, such as hydrogen peroxide**, as this will destroy the active ingredients and/or cause discoloration.

