



MINASOLVE[®]
BIO-INGREDIENTS FOR YOUR APPLICATIONS

**green
solving
attitude.**

A pioneer in biobased ingredients & leader in sustainable innovations

MINASOLVE develops and produces **exclusive and sustainable ingredients** for the cosmetics industry.

- ▶ We place **social and environmental responsibility** at the heart of our activities and have extensive expertise in **renewable materials** and **sustainable production processes**.
- ▶ Our products are manufactured using **green chemistry** and **green extraction** technology. They are characterised by **excellent performance** and **biodegradability**.
- ▶ We guarantee **100% traceability** of our natural ingredients.



MINASOLVE has been awarded the **EcoVadis Platinum Medal**.

The EcoVadis assessment examines 21 sustainability criteria, including environmental and human rights, fair business and labour practices and sustainable procurement.

EcoVadis helps us to continuously improve the sustainability of our company and our value chains.



To continuously improve our customer service, we have introduced a quality management system in accordance with **ISO 9001: 2015**. The certification covers all our activities, including R&D, supply chain, quality, sales, communication and regulatory support.



Renewable raw materials require sustainable agricultural practices. That is why MINASOLVE is a **member of the ProTerra Network**. All ProTerra members are committed to aligning their sourcing and production policies with the ProTerra Standard for Social Responsibility and Environmental Sustainability.



MINASOLVE is part of the **UNESCO Chair in Green and Sustainable Plant-Based Chemistry** in collaboration with the University of Avignon. Our commitment to contribute to a better world is not only limited to the development of innovative products but is also in line with our motto "Green Solving Attitude".



MINASOLVE is committed to **social responsibility**. One practical example is our collaboration with ETA d'Enghien. This company employs 90% disabled people and offers them long-term employment opportunities in a working environment adapted to their needs. ETA d'Enghien fills, labels and packages our samples.

Table of contents



Formula Protection

A-Leen range	4
Synergistic Antimicrobial mixtures	6
E-Leen 58 & E-Leen 58 GOLD NEW IN 2024	7
E-Leen range	8
EasySafe range NEW IN 2024: EASYSAFE 8	10
Preservatives & Boosters	12
Multifunctional Ingredients	13
Products Overview	14
Quick Decision Guide	16



Sensory Additives

Sensofeel MFC - Sensory Enhancers NEW DATA 2024	18
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Active Ingredients

Flora-Leen Cistus - Natural Rejuvenating Complex NEW DATA 2024	20
Fresh'in & Resve - Cooling Agent & Plant Polyphenol Antioxidant	22



Stabilized Hydrolats

Hydra-Leen range - Stable floral waters	24
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Services & Expertise

Botanical Extracts - Tailormade to fit your concept	26
Upcycling - "The new responsible concept"	27
Formulation aKademy - Training courses at Minasolve	27

A-LEEN: MADE FOR YOU by Minasolve

The **A-Leen®** range of ingredients is at the heart of our product portfolio.

All **A-Leen®** products are produced from **renewable raw materials** according to the 12 principles of **green chemistry**. Their supply chains are **fully transparent and traceable** back to the plant-based raw materials.

All **A-Leen®** products have the following common features:

- ▶ Natural Origin Index = 1 (ISO 16128)
- ▶ pH-independent antimicrobial effect
- ▶ COSMOS & NATRUE approved
- ▶ USDA certified 100% biobased
- ▶ Globally approved

A-Leen 5

INCI: Pentylene Glycol



A-Leen 5 is a versatile, multi-functional ingredient that creates self-preserving formulations and offers many other benefits:

- ▶ Skin moisturizer
- ▶ Emollient, creating a smooth skin feel
- ▶ Solvent for extracts and active ingredients



A-Leen 5 is made by **upcycling** sugarcane bagasse, a **waste** product from food production. The raw material is **fully traceable**, and the **sustainable** agricultural practices are ProTerra certified. As a consequence, no additional farmland is needed to produce **A-Leen 5**.

A-Leen 8

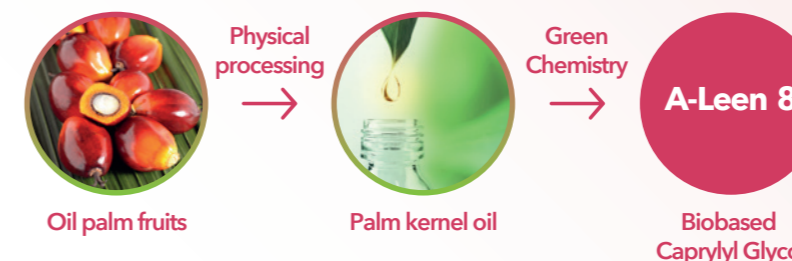
INCI: Caprylyl Glycol

A-Leen 8 is a modern multifunctional ingredient which is well known for its ability to create self-preserving formulations at low use-levels.

A-Leen 8 offers a multitude of benefits for personal care products:

- ▶ Skin moisturizer
- ▶ Conditioning agent
- ▶ Solvent booster for extracts and active ingredients

Exists in liquid version:
E-Leen 8



A-Leen 8 is made from 100% RSPO-MB certified palm kernel oil, which contributes to the **sustainable cultivation** of oil palms. This well-established **certified renewable supply chain** is the basis for many oleochemical ingredients for food and cosmetics.

A-Leen Aroma 3

INCI: Phenylpropanol



A-Leen Aroma-3 occurs in nature as component of flower and fruit fragrances.

A-Leen Aroma-3 helps to create self-preserving formulations, in addition to the following benefit:

- ▶ Aromatic solvent for preservatives and active cosmetic ingredients



A-Leen Aroma-3 is made by **upcycling cinnamon by-products**. Cinnamon trees are felled after 8-15 years of growth. The bark on the trunk and strong branches is peeled off and processed into cinnamon spice. The upper part of the tree, consisting of leaves and thin branches, is a **waste product** from which an essential oil is extracted. Further upcycling of this oil with the help of green chemistry gives **A-Leen Aroma-3**.

Synergistic antimicrobial mixtures

Designed to simplify your work

Minasolve offers two ranges of synergistic antimicrobial mixtures

The E-Leen range (p.8-9):

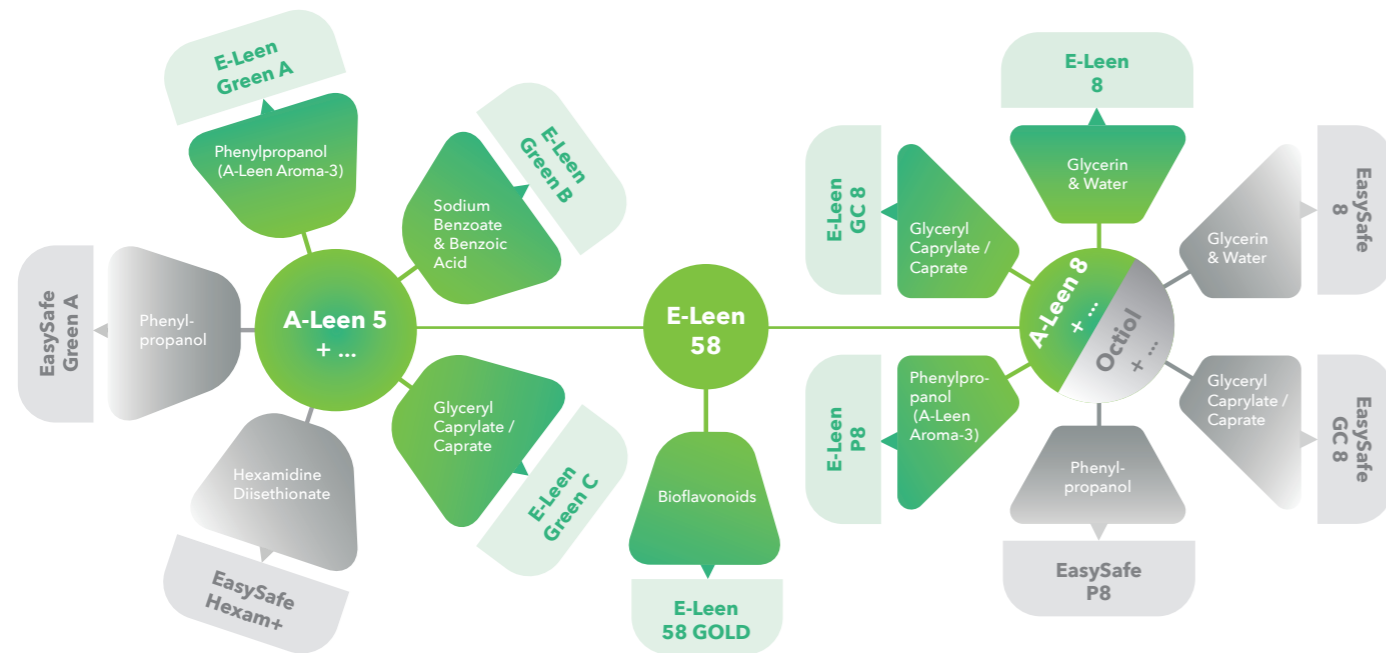
- ✓ Bio-based, COSMOS & NATRUE-approved
- ✓ For more sustainable and natural cosmetics
- ✓ Readily biodegradable

The EasySafe range (p.10-11):

- ✓ Cost-optimized with outstanding performance
- ✓ For highest efficacy and productivity
- ✓ Partly bio-based

All our synergistic mixtures offer the following benefits:

- ▶ **Complete protection:** fully self-preserving formulations
For perfect broad-spectrum protection against microbial contamination
- ▶ **Convenience:** easy-to-use liquids - no heating required
For increased productivity and safer handling
- ▶ **Cost reduction:** synergistic activity enables lower usage levels
For milder products at lower cost
- ▶ **Complexity reduction:** multifunctional ingredients have multiple functions
For shorter INCI lists and easier stock management



Solutions based on **Green Pentylene Glycol (A-Leen 5):**

- ▶ Hydrophilic
- ▶ Multifunctional, with skin-care benefits
- ▶ 2-3% use-level
- ▶ For any kind of high-value formulation

Solutions based on **Green Caprylyl Glycol (A-Leen 8)** or based on synthetic **Caprylyl Glycol (Octiol):**

- ▶ Lipophilic
- ▶ Low use level - cost effective
- ▶ For O/W emulsions, wet wipes, mists ...

E-Leen® 58

Unique multifunctional biobased solvent



NEW IN 2024

E-Leen 58

INCI: Pentylene Glycol, Caprylyl Glycol

- ▶ 100% bio-based solvent for hydrophilic and lipophilic substances
- ▶ Dissolves poorly soluble ingredients, such as:
 - Active ingredients
 - Dry plant extracts
 - Polyphenols
- ▶ Skin friendly moisturiser
- ▶ Preservative booster with anti-yeast and antibacterial properties
- ▶ Suitable for a wide pH range

E-Leen 58® GOLD

Multifunctional protection with purified Citrus extract

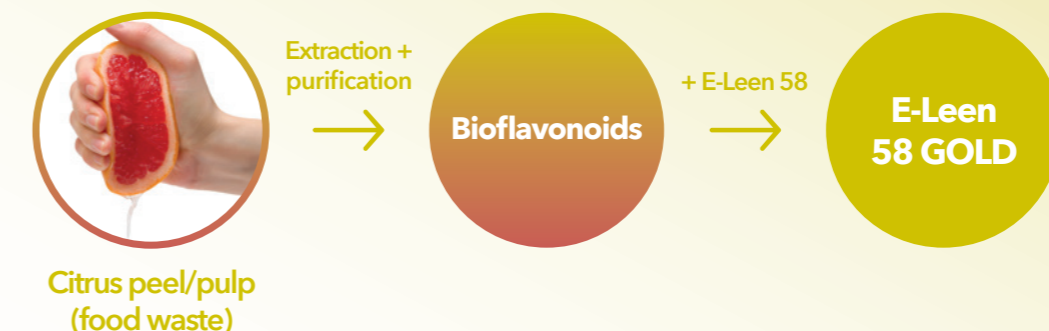


NEW IN 2024

E-Leen 58 GOLD

INCI: Pentylene Glycol, Caprylyl Glycol, Bioflavonoids

- ▶ Creates self-preserved formulations at pH 3-7
- ▶ Low use-level of 0.5-1.5%
- ▶ Contains bioflavonoids from *Citrus grandis* (Grapefruit)
 - Powerful antioxidants
 - Upcycled from food waste
 - Free of fragrance allergens (IFRA)



E-Leen synergistic mixtures are multifunctional solutions composed of sustainable and renewable ingredients. Each blend provides broad spectrum stand-alone antimicrobial protection.

All **E-Leen** ingredients are globally approved, COSMOS & NATRUE approved. They are particularly suitable for products with a sustainable concept and a strong focus on naturality.

E-Leen Green A

INCI: Pentylene Glycol, Phenylpropanol

- ▶ Fragrance, solvent, humectant
- ▶ Broad spectrum protection / wide pH range
- ▶ Water soluble at $\leq 3\%$

E-Leen Green B

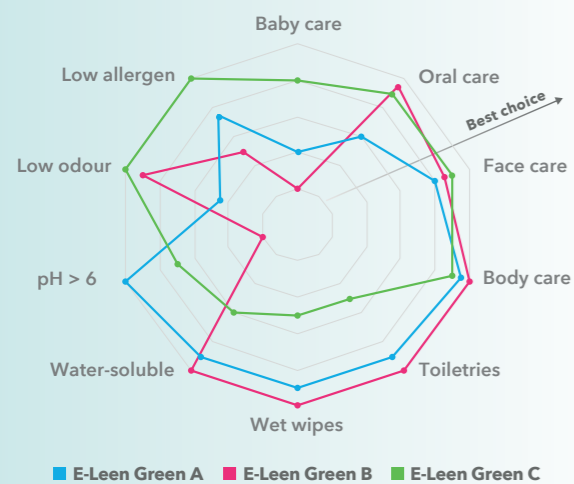
INCI: Pentylene Glycol, Water, Sodium Benzoate, Benzoic Acid

- ▶ Water soluble preservative blend
- ▶ Broad spectrum protection at $\text{pH} \leq 6$
- ▶ Odourless and colourless

E-Leen Green C

INCI: Pentylene Glycol, Glyceryl Caprylate/Caprate

- ▶ Mild humectant blend for sensitive skin
- ▶ Non-ionic, suitable up to $\text{pH} 7$
- ▶ Dispersible in water



"Skin Care"

- ✓ With biobased Pentylene Glycol
- ✓ Hydrophilic
- ✓ 2-3% use-level

"Full Power"

- ✓ With biobased Caprylyl Glycol
- ✓ Lipophilic
- ✓ 0.5-1.5% use-level

"Synergy"

- ✓ With biobased Pentylene Glycol & Caprylyl Glycol
- ✓ Amphiphilic, water-soluble at $\leq 2\%$
- ✓ 0.5-1.5% use-level

E-Leen 58

INCI: Pentylene Glycol, Caprylyl Glycol

- ▶ Versatile synergistic cosmetic solvent
- ▶ Most effective against bacteria and yeasts
- ▶ Suitable for a wide pH range

E-Leen 58 GOLD

INCI: Pentylene Glycol, Caprylyl Glycol, Bioflavonoids

- ▶ Antioxidant effect
- ▶ Upcycled from food waste
- ▶ Broad spectrum protection up to $\text{pH} 7$

NEW IN 2024

E-Leen 8

INCI: Caprylyl Glycol, Glycerin, Water

- ▶ Contains 75% bio-based Caprylyl Glycol
- ▶ Cold processable liquid
- ▶ Soluble in water up to 0.9 %

E-Leen P8

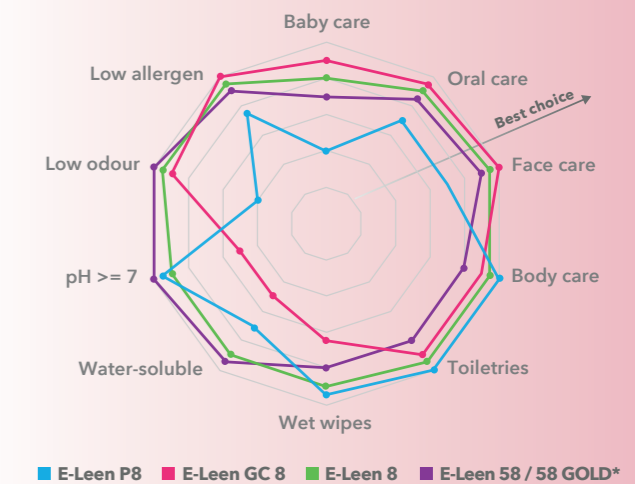
INCI: Caprylyl Glycol, Phenylpropanol, Water

- ▶ Broad spectrum effect / wide pH range
- ▶ Fragrance, solvent, humectant
- ▶ Soluble in water up to 0.9 %

E-Leen GC 8

INCI: Caprylyl Glycol, Glyceryl Caprylate/ Caprate, Glycerin

- ▶ Gentle blend for sensitive skin
- ▶ Natural skin humectant
- ▶ Contains natural glycerin derivatives



*E-Leen 58 GOLD only for $\text{pH} \leq 7$

EasySafe range

Optimized solutions for safe cosmetics

EasySafe synergistic mixtures are multifunctional solutions made from undisputed and skin friendly ingredients. All **EasySafe** provide broad spectrum, stand-alone antimicrobial protection.

EasySafe Green A

INCI: Pentylene Glycol, Phenylpropanol

- ▶ Fragrance, solvent, humectant
- ▶ Effective at any pH
- ▶ Water soluble at $\leq 3\%$

EasySafe Hexam+

INCI: Pentylene Glycol, Water, Hexamidine Diisethionate

- ▶ Strong against microbes + mild to the skin
- ▶ For sensitive skin + sensitive areas
- ▶ Best combined with non-ionic ingredients

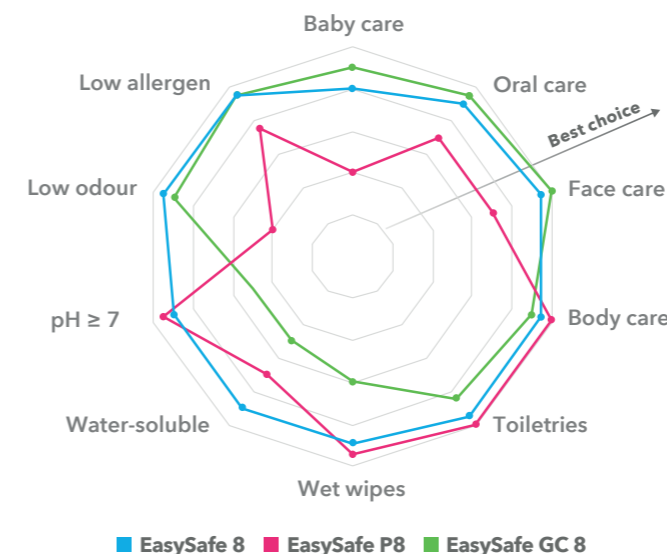
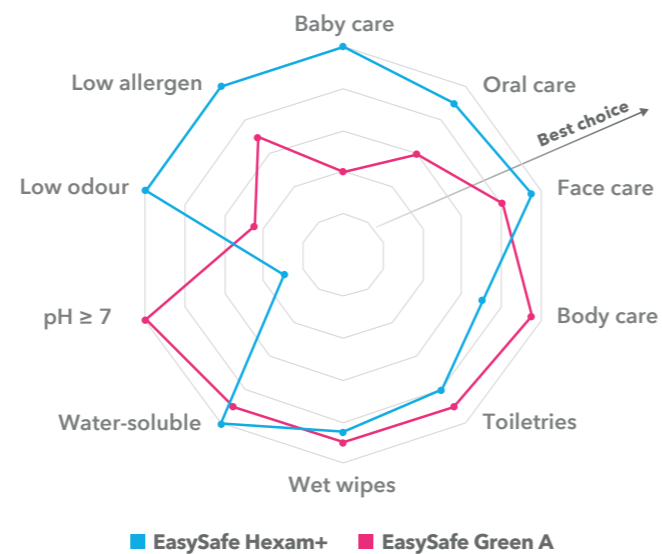


"Skin Care"

- ✓ With biobased Pentylene Glycol
- ✓ Hydrophilic
- ✓ 1-3% use-level

"Full Power"

- ✓ Based on synthetic Caprylyl Glycol
- ✓ Lipophilic
- ✓ 0.5-1.5% use-level



EasySafe 8 New in 2024

INCI: Caprylyl Glycol, Glycerin, Water

- ▶ Contains 75% Caprylyl Glycol
- ▶ Stable liquid - avoids melting - saves time
- ▶ Soluble in water up to 0.9 %

EasySafe P8

INCI: Caprylyl Glycol, Phenylpropanol, Water

- ▶ Powerful and suitable for any pH
- ▶ Fragrance, solvent, humectant
- ▶ Soluble in water up to 0.9 %

EasySafe GC 8

INCI: Caprylyl Glycol, Glyceryl Caprylate/ Caprate, Glycerin

- ▶ A mild blend for sensitive skin
- ▶ Refatting and moisturizing
- ▶ With natural glycerin derivatives

Preservatives & Boosters

Gentle to the skin

MinaSolve Hexam

INCI: Hexamidine Diisethionate

Mild preservative for sensitive areas

- ▶ Baby care
- ▶ Sensitive skin and scalp
- ▶ Mucous membranes (around the eyes, intimate care)

Multifunctional ingredient

- ▶ Anti-dandruff applications ⁽¹⁾
- ▶ Anti-acne applications ⁽²⁾

Unique quality

- ▶ Special purification process for higher safety
- ▶ Without toxic solvents
- ▶ Highly effective, max. 0.1% usage level

Exists in boosted liquid version:
EasySafe Hexam+



Caprocine

INCI: Capryloyl Glycine

Multifunctional and skin-friendly ingredient

- ▶ Biobased, contains 80% renewable carbon
- ▶ Produced from RSPO-MB certified palm-kernel oil

Inhibits the 5 α -reductase

- ▶ Enzyme involved in regulating sebum production
- ▶ Helps improve sebum-related dandruff and acne
- ▶ For cleansing oily skin and greasy scalp

Antimicrobial effect

- ▶ Active against body odour causing microbes
- ▶ Effective against *Cutibacterium acnes* and *Malassezia furfur*
- ▶ Supports the creation of self-preserving formulations

Exists in liquid version:
MinaSolve CapEasy



(1) Active against *Malassezia furfur*

(2) Active against *Cutibacterium acnes*

Multifunctional Ingredients

For self-preserving formulations

Hexiol

INCI: 1,2-Hexanediol

Mild multifunctional ingredient:

- ▶ Moisturiser and emollient
- ▶ Dispersing aid for pigments
- ▶ Easy-to-use liquid, miscible with water in any ratio
- ▶ pH-independent antimicrobial boosting effect

Octiol

INCI: Caprylyl Glycol

Powerful multifunctional ingredient:

- ▶ Moisturiser and conditioner
- ▶ Co-solvent for active ingredients
- ▶ Liquid at 30°C, soluble in water at $\leq 0.8\%$
- ▶ Creates self-preserving formulations at low use-level

NEW IN 2024

Exists in liquid version:
EasySafe 8

Hexcine

INCI: Ethylhexylglycerin

Selective multifunctional ingredient:

- ▶ Humectant and emollient
- ▶ Oil-soluble co-solvent with low freezing point
- ▶ Deodorant - active against body odour causing microbes
- ▶ pH-independent antimicrobial boosting agent

Formula Protection

Products overview

	INCI	ORIGIN	COSMOS APPROVED	NATRUE APPROVED	NATURAL ORIGIN INDEX ⁽¹⁾	DESCRIPTION	FORM/ODOUR	ANTIMICROBIAL ACTIVITY	pH RANGE	RECOMMENDED USE LEVEL	FORMULATION GUIDELINES	
A-Leen: Pure Natural Ingredients, COSMOS and NATRUE approved												
	A-Leen 5	Pentylene Glycol	Derived-natural	✓	✓	1	Derived-natural emollient & moisturizer. Antimicrobial. Extraction solvent & solubilizer. Wetting aid for natural gums.	Clear, colourless liquid / odourless	Bacteria, Yeast and Mold (Booster)	unlimited	0.5 ▶ 5.0%	Preferably added at the end of the formulation process. Can be used as a premix to disperse gums.
	A-Leen 8	Caprylyl Glycol	Derived-natural	✓	✓	1	Emollient, moisturizer, solvent booster, creates self-preserved formulations at any pH.	White waxy solid or clear colourless liquid / faint waxy odour	Bacteria, Yeast and Mold	unlimited	0.1 ▶ 1.0%	Preferably added at the end of the formulation process. Should be molten at ≥ 40°C before use. Low solubility, the addition of a solubilizer is recommended for aqueous formulations.
PATENTED	A-Leen Aroma-3	Phenylpropanol	Derived-natural	✓	✓	1	Nature-derived aromatic solvent, creates self-preserved formulations at any pH.	Clear, colourless liquid / sweet floral odour	Bacteria, Yeast and Mold (Booster)	unlimited	0.05 ▶ 1.0%	Preferably added at the end of the formulation process. Soluble in water up to 0.8%. The addition of a solubilizer is recommended for aqueous formulations.
E-Leen: Synergistic Green Solutions, COSMOS approved												
	E-Leen Green A	Pentylene Glycol, Phenylpropanol	Derived-natural	✓	✓	1	Non-ionic blend, solvent and moisturizer, creates self-preserved formulations at any pH	Clear, colourless liquid / sweet, floral odour	Bacteria, Yeast and Mold	unlimited	1.0 ▶ 3.0%	Preferably added at the end of the formulation process. At 3% the addition of a solubilizer can be recommended for aqueous formulations to accelerate the dissolution.
PATENTED	E-Leen Green B	Pentylene Glycol, Water, Sodium Benzoate, Benzoic Acid	Derived-natural	✓	✓	0,88	Anionic broad-spectrum preservative and moisturizer, ideal for low pH formulations	Clear, colourless liquid / odourless or faint	Bacteria, Yeast and Mold	3.0 ▶ 6.0	1.0 ▶ 3.0% (5% max.)	Preferably added at the end of the formulation process.
	E-Leen Green C	Pentylene Glycol, Glyceryl Caprylate/ Caprate	Derived-natural	✓	✓	1	Non-ionic blend of moisturizers, mild to the skin, creates self-preserved formulations	Clear, colourless liquid / odourless or faint	Bacteria, Yeast, Fungistatic against Mold	4.0 ▶ 7.0	1.0 ▶ 3.0%	Preferably added at the end of the formulation process. The addition of a solubilizer is recommended for aqueous formulations.
	E-Leen 8	Caprylyl Glycol, Glycerin, Water	Derived-natural	✓	✓	1	Bio-sourced and easy-to-use liquid version of Caprylyl Glycol, for self-preserving formulations, effective at any pH.	Clear, colourless liquid / faint waxy odour	Bacteria, Yeast and Mold	unlimited	0.5 ▶ 2.0%	Preferably added at the end of the formulation process. Soluble in water up to 1%, the addition of a solubilizer is recommended for aqueous formulations.
	E-Leen GC 8	Caprylyl Glycol, Glyceryl Caprylate/ Caprate, Glycerin	Derived-natural	✓	✓	1	Synergistic blend of 100% nature-derived humectants, non-ionic, for mild and low odour formulations.	Clear, colourless or slightly yellow liquid / odourless or faint	Bacteria, Yeast and Mold	4.0 ▶ 7.0	0.5 ▶ 2.0%	Preferably added at the end of the formulation process. The addition of a solubilizer is recommended for aqueous formulations.
	E-Leen P8	Caprylyl Glycol, Phenylpropanol, Water	Derived-natural	✓	✓	1	Non-ionic blend, solvent and moisturizer, creates self-preserved formulations at low concentration and any pH	Clear, colourless or slightly coloured liquid / sweet, floral odour	Bacteria, Yeast and Mold	unlimited	0.5 ▶ 2.0%	Preferably added at the end of the formulation process. Soluble in water up to 1%, the addition of a solubilizer is recommended for aqueous formulations.
NEW IN 2024	E-Leen 58	Pentylene Glycol, Caprylyl Glycol	Derived-natural	✓	✓	1	Synergistic combination of two biobased multifunctionals, solvent and humectant, for self-preserving formulations at any pH.	Clear, colourless liquid / faint waxy odour	Bacteria, Yeast and Mold	unlimited	0.5 ▶ 2.0%	Preferably added at the end of the formulation process. The addition of a solubilizer is recommended for aqueous formulations.
NEW IN 2024	E-Leen 58 GOLD	Pentylene Glycol, Caprylyl Glycol, Bioflavonoids	Derived-natural	✓	✓	1	Natural moisturizer and antioxidant, creates self-preserved formulations	Clear, light-yellow liquid / odourless or faint	Bacteria, Yeast and Mold	3.0 ▶ 7.0	0.5 ▶ 1.5%	Preferably added at the end of the formulation process. A high pH value can cause yellow coloration.
EasySafe: Optimized Performance Solutions												
	EasySafe Green A	Pentylene Glycol, Phenylpropanol	Derived-natural			0,69	Non-ionic blend, solvent and moisturizer, creates self-preserved formulations at any pH	Clear, colourless liquid / sweet floral odour	Bacteria, Yeast and Mold	unlimited	1.0 ▶ 3.0%	Preferably added at the end of the formulation process. At 3% the addition of a solubilizer can be recommended for aqueous formulations to accelerate the dissolution.
PATENTED	EasySafe Hexam+ ⁽²⁾	Pentylene Glycol, Water, Hexamidine Diisethionate	Derived-Natural			0,95	Boosted liquid form of the cationic preservative Hexamidine Diisethionate. Effective at low use-level. Skin humectant. For sensitive skin & baby applications.	Clear, colourless liquid / odourless or faint	Bacteria, Yeast and Mold	3.5 ▶ 6.0	0.2 ▶ 2.0% max.	Preferably added at the end of the formulation process. Adjust the pH before the addition of the ingredient. Not compatible with anionic surfactants.
NEW IN 2024	EasySafe 8	Caprylyl Glycol, Glycerin, Water	Non-Natural			0,11	Easy-to-use liquid version of Caprylyl Glycol, for self-preserving formulations, effective at any pH.	Clear, colourless liquid / faint odour	Bacteria, Yeast and Mold	unlimited	0.5 ▶ 2.0%	Preferably added at the end of the formulation process. Soluble in water up to 1%, the addition of a solubilizer can be recommended for aqueous formulations.
	EasySafe GC 8	Caprylyl Glycol, Glyceryl Caprylate/ Caprate, Glycerin	Derived-natural			0,60	Synergistic blend of partly nature-derived humectants, non-ionic, for mild and low odour formulations.	Clear, colourless or slightly yellow liquid / odourless or faint	Bacteria, Yeast and Mold	4.0 ▶ 7.0	0.5 ▶ 2.0%	Preferably added at the end of the formulation process. The addition of a solubilizer is recommended for aqueous formulations.
	EasySafe P8	Caprylyl Glycol, Phenylpropanol, Water	Non-Natural			0	Cost-effective and non-ionic blend, solvent and moisturizer, creates self-preserved formulations at low concentration and any pH	Clear, colourless liquid / faint aromatic odour	Bacteria, Yeast and Mold	unlimited	0.5 ▶ 2.0%	Preferably added at the end of the formulation process. Soluble in water up to 1%, the addition of a solubilizer can be recommended for aqueous formulations.
Booster, Preservatives & Multifunctional Ingredients												
	Caprocine	Capryloyl Glycine	Derived-natural			0,80	Anionic multifunctional ingredient with antimicrobial properties.	White crystalline powder	Bacteria and Mold (weak on C. albicans)	3.0 ▶ 7.0	0.5 ▶ 2.0%	Needs to be dissolved in hot water or in cold alkaline water (pH > 7.0) before adding it in a formulation.
	MinaSolve CapEasy	Water, Capryloyl Glycine, Sodium Bicarbonate	Derived-natural			0,80	Self-preserved, aqueous solution of Caprocine (~30% a.i.). Multifunctional with antimicrobial properties.	Clear, colourless liquid / odourless or faint	Bacteria and Mold (weak on C. albicans)	3.0 ▶ 7.0	1.5 ▶ 7.0%	Can be added at any stage of the formulation. No heating, premixing, or pH-adjustment is needed for dissolution.
	MinaSolve Hexam ⁽²⁾	Hexamidine Diisethionate	Non-Natural			0	Cationic, mild antimicrobial & antiseptic. Recommended for sensitive skin & suitable for baby applications.	White or slightly yellow powder	Bacteria, Yeast and Mold	3.5 ▶ 6.0	0.01 ▶ 0.1% max.	Needs to be dissolved into the water phase, or make a premix in water or a diol. Adjust the pH before the addition of the ingredient. Not compatible with anionic surfactants.
	Octiol	Caprylyl Glycol	Non-Natural			0	Emollient, moisturizer, solvent booster, creates self-preserved formulations at any pH	White waxy solid or clear colourless liquid/ faint waxy odour	Bacteria, Yeast and Mold	unlimited	0.1 ▶ 1.0%	Preferably added at the end of the formulation process. The addition of a solubilizer is recommended for aqueous formulations.
	Hexiol	1,2-Hexanediol	Non-Natural			0	Emollient, moisturizer, pigment dispersing aid, creates self-preserved formulations at any pH	Clear, colourless liquid / odourless or faint	Bacteria, Yeast and Mold	unlimited	0.1 ▶ 2.0%	Preferably added at the end of the formulation process. Can be used as a premix to disperse other ingredients.
	Hexcine	Ethylhexylglycerin	Non-Natural			0	Emollient, moisturizer, deodorant, antimicrobial boosting agent, effective at any pH	Clear, colourless liquid / odourless or faint	Bacteria, Yeast and Mold	unlimited	0.1 ▶ 2.0%	Preferably added at the end of the formulation process. The addition of a solubilizer can be recommended for aqueous formulations.

(1) ISO 16128, calculation based on renewable carbon

(2) Regulatory status: not OK Japan

Formula Protection

Quick Decision Guide

Which Minasolve product is the best choice to protect your formulation?

With this quick decision tool, you can easily identify the perfect candidate to effectively protect your product. Simply select the galenic form and target pH of your formulation.

Please do not hesitate to contact us. We will be happy to support you on your specific projects.



YOUR CHALLENGE, OUR SOLUTIONS

		EMULSIONS		SINGLE PHASE PRODUCTS			pH RANGE						CHARACTERISTICS	
		O/W	W/O	WATER + HIGH AMOUNT OF SURFACTANT/SOLUBILIZER (E.G. SHOWER GEL, SHAMPOO)	WATER + LOW AMOUNT OF SURFACTANT/SOLUBILIZER (E.G. MICELLAR WATER)	WETWIPES	3.0	3.5	4.0	6.0	6.5	7.0	8.0	10.0
PURE NATURAL PRODUCT	A-Leen 5	●	●	●	●	●	A-Leen 5						✓	✓
	A-Leen 8	●	●	●	●	●	A-Leen 8						✓	✓
	A-Leen Aroma-3	●	●	●	●	●	A-Leen Aroma-3						✓	✓
HYDROPHILIC / MULTIFUNCTIONAL A-LEEN 5-BASED SYNERGISTIC MIXTURES	E-Leen Green A	●	●	●	●	●	E-Leen Green A						✓	✓
	E-Leen Green B	●	●	●	●	●	E-Leen Green B						✓	✓
	E-Leen Green C	●	●	●	●	●	E-Leen Green C						✓	✓
	EasySafe Hexam+	●	●	●	●	●	EasySafe Hexam +						✓	✓
	EasySafe Green A	●	●	●	●	●	EasySafe Green A						✓	✓
LIPOPHILIC / POWERFUL A-LEEN 8 OR OCTIOL-BASED SYNERGISTIC MIXTURES	E-Leen 8	●	●	●	●	●	E-Leen 8						✓	✓
	E-Leen P8	●	●	●	●	●	E-Leen P8						✓	✓
	E-Leen GC 8	●	●	●	●	●	E-Leen GC 8						✓	✓
	E-Leen 58	●	●	●	●	●	E-Leen 58						✓	✓
	E-Leen 58 GOLD	●	●	●	●	●	E-Leen 58 GOLD						✓	✓
	EasySafe 8	●	●	●	●	●	EasySafe 8						✓	✓
	EasySafe P8	●	●	●	●	●	EasySafe P8						✓	✓
	EasySafe GC 8	●	●	●	●	●	EasySafe GC 8						✓	✓
BOOSTER / PRESERVATIVES	MinaSolve Hexam	●	●	●	●	●	MinaSolve Hexam						✓	✓
	Caprocine	●	●	●	●	●	Caprocine						✓	✓
	MinaSolve CapEasy	●	●	●	●	●	MinaSolve CapEasy						✓	✓
	Octiol	●	●	●	●	●	Octiol						✓	✓
	Hexiol	●	●	●	●	●	Hexiol						✓	✓
	Hexcine	●	●	●	●	●	Hexcine						✓	✓

● RECOMMENDED ● POSSIBLE, TO BE CHECKED INDIVIDUALLY

■ COSMOS APPROVED ■ DERIVED NATURAL ■ NON-NATURAL

* According to Annex V of the Cosmetic Regulation (EC) N° 1223/2009

Natural stabilizer and sensory enhancer for a better consumer experience : LOOK, TOUCH & FEEL



- ▶ Contains Micro-Fibrillated Cellulose (MFC)
- ▶ MFC is a three-dimensional network of entangled small cellulose fibers
- ▶ Manufactured using a purely mechanical process with no chemical steps
- ▶ Made from sustainably sourced European hardwood
- ▶ No risk of microbial contamination

Three variants:

Gel Form

E-Sensofeel MFC 5

INCI: Water, Pentylene Glycol, Cellulose, Xanthan Gum

E-Sensofeel MFC 8

INCI: Water, Glycerin, Cellulose, Caprylyl Glycol, Xanthan Gum

- ▶ Convenient to use hydrogels
- ▶ Incorporation with low-shear mixer

Powder Form

A-Sensofeel MFC

INCI: Cellulose, Glycerin, Water

- ▶ Highly concentrated powder form
- ▶ Easy to transport and store
- ▶ Also suitable for dry cosmetics

Formulation tip: SENSOFEEL MFC is only a weak thickener by itself and can settle over time. To avoid this, it is mandatory to combine it with thickeners to achieve a synergistic increase in viscosity and stability. The resulting gels are thixotropic and sprayable, with low stickiness and a smooth feel.

TOILETRIES

With E-Sensofeel MFC 5/8:

- More foam, creamier and stable
- Natural opacifier
- Anti-drip effect - for more "body"
- Softer hair with increased volume

MAKE UP

With A-Sensofeel MFC:

- More intense colours
- More compact structure
- Glossier surface
- Better coverage

SKIN CARE

With Sensofeel MFC:

- Brilliant aspect for emulsions
- Luxurious texture, velvety feel
- Soft focus - immediate effect
- Thixotropic - "quick break" effect preferred by consumers

Soft-focus effect

NEW DATA 2024

Immediate soft focus effect after one single application, on 20 volunteers, of a cream containing 1% **A-Sensofeel MFC**

Decrease in crow's feet depth by -15.7%, statistically significant vs. T0

90% of the panellists would buy the product containing 1% A-Sensofeel MFC, while only 65% would buy the placebo product.

	ORIGIN	NATURAL ORIGIN INDEX*	FORM/ODOUR	pH RANGE	RECOMMENDED USE LEVEL	FORMULATION GUIDELINES
PATENTED A-Sensofeel MFC	Derived-natural	1	White to off-white powder	Unlimited	0.2 ▶ 4.0%	Requires a high shear mixing step when used in aqueous formulations or emulsions.
E-Sensofeel MFC 5	Derived-natural	1	Opaque gel	unlimited	2.0 ▶ 20.0%	High shear mixing is recommended but not mandatory. Always added before the gelfier in formulas with aqueous phase like shampoo.
E-Sensofeel MFC 8	Derived-natural	1	Opaque gel	Unlimited	2.0 ▶ 20.0%	High shear mixing is recommended but not mandatory. Always added before the gelfier in formulas with aqueous phase like shampoo.

* ISO 16128, calculation based on renewable carbon

Flora-Leen Cistus

INCI: Water, Pentylene Glycol, Cistus Ladaniferus Leaf/Stem Extract, Ascorbic Acid

This active is a **natural anti-ageing**, **skin soother** and **antioxidant**. Its **multiple skincare benefits** are proven in different clinical and in vitro studies and recognized by international experts.

The fabulous phoenix flower

"Cistus ladaniferus is a powerful self-defender that gives resilience and recovery to the skin."

Ancient wisdom: The rockrose (*Cistus ladaniferus*) is a shrub with beautiful white flowers and a mystical scent. The plant is native to the Mediterranean region. Its fragrant oleoresin, known as "labdanum", was already used by the ancient Egyptians.

Prepared for survival: The rockrose grows in a hostile environment and withstands long periods of drought. As a **pyrophyte**, it regenerates quickly and vigorously after natural forest fires.

Wild beauty: *Cistus ladaniferus* is a wild plant that grows without cultivation. It is harvested by hand between October and December.



"Cistus ladaniferus defends itself as well as the skin."

Traceable origin & proven efficacy

Unique supply chain: All materials and processes are fully controlled and managed by Minasolve. We even manufacture the extraction solvent ourselves: **A-Leen 5**.

Our environmentally friendly extraction process captures a maximum percentage of the valuable plant ingredients.

This is what makes Flora-Leen Cistus so unique:

- ▶ **Exceptionally rich in natural antioxidant polyphenols**
- ▶ Full **traceability** from solvent to plant to final extract
- ▶ **Energy saving** - no solvent evaporation required
- ▶ **Compatible** with all skin types and provides multiple skin care benefits

Active Ingredient	ORIGIN	NATURAL ORIGIN INDEX ⁽¹⁾	FORM/ODOUR	pH RANGE	RECOMMENDED USE LEVEL	FORMULATION GUIDELINES
Flora-Leen Cistus	Derived-natural	1	Brown liquid	3.0 ▶ 6.0	0.5 ▶ 3.0%	Incorporation at the end of the process, preferably at < 40°C. Never exceed pH 6.

Anti-aging effect

NEW DATA 2024

Effects observed in a 28-day clinical study, after a daily application of 1% Flora-Leen Cistus in O/W face cream, on 40 volunteers (vs placebo cream):

- ▶ Skin elasticity: **+9.7%** (up to 26.5%)⁽²⁾
- ▶ Skin firmness: **+12%** (up to 27.3%)⁽²⁾
- ▶ Wrinkle depth: **-15%** (up to -39.5%)⁽²⁾
- ▶ Face wrinkles: **improvement in 59%** of the panellists (vs. 18% with placebo cream)

90.9% of the volunteers **would buy the cream** with 1% Flora-Leen Cistus (vs. 63.6% for the placebo cream)

Immediate soothing effect

NEW DATA 2024

1 min after a single application of 1% Flora-Leen Cistus in an O/W cream, on 20 volunteers, after lactic acid application:

- ▶ Reduction of lactic acid-induced **stinging sensation: -36.4%** (vs. -20.6% with placebo cream)
- ▶ Significantly faster **decrease of stinging sensation** compared to placebo cream

30 min after application of 1% Flora-Leen Cistus in an O/W cream, on 20 volunteers, after UVA/UVB irradiation

- ▶ Soothing effect on UV-induced **skin redness: -23.3% erythema index** (vs. -10.5% with placebo cream)

Broad variety of physiological targets

NEW DATA 2024

Skin explants were analysed in a proteomics study, to quantify protein expression after treatment with Flora-Leen Cistus. Several proteins were up-regulated that may lead to desirable cosmetic effects:

Anti-bacterial & anti-inflammatory proteins:

- ▶ Inflammasome recognition (+20%)
- ▶ Cell regeneration (+10%)
- ▶ Decrease of the transcription factor NF-κB⁽³⁾

Proteins linked to anti-aging:

- ▶ Autophagy (+15% increase in expression)
- ▶ Maintenance of telomeres length (+20%)
- ▶ Cellular detoxification & ROS balance (+20%)
- ▶ Cholesterol biosynthesis (+47%)
- ▶ Sphingolipid metabolism (+15%)

(1) ISO 16128, calculation based on renewable carbon

(2) Results statistically significant vs T0 and statistically superior compared to placebo

(3) Known to induce the expression of various pro-inflammatory proteins

Fresh'in & Resve

Cooling agent & Plant polyphenol antioxidant

Fresh'in

INCI: Methyl Diisopropyl Propionamide

Long lasting physiological cooling effect

- ▶ Provides subtle freshness in skin care and rinse-off products
- ▶ Powerful cooling sensation in hydrogels, oral care, and lipstick

Safe alternative to menthol

- ▶ More pleasant and longer lasting effect than menthol
- ▶ Light odour, avoiding the camphor note of menthol
- ▶ Free of fragrance allergens (IFRA)
- ▶ No tendency to sublime

Fresh'in Green+

INCI: Pentylene Glycol, Methyl Diisopropyl Propionamide

- ▶ Easy to use liquid version of Fresh'in
- ▶ Water soluble up to 1.5%.



Resve

INCI: Resveratrol

Natural, multi-functional active ingredient

- ▶ Anti-aging
- ▶ Anti-oxidant
- ▶ Anti-inflammatory

Derived from wild plants - weed upcycling

- ▶ Extracted from Japanese Knotweed (*Fallopia japonica*)
- ▶ Invasive species with exceptionally fast growth
- ▶ Resistant to environmental stress

Characteristics and formulation tips

- ▶ An almost white powder of high purity (≥ 98%)
- ▶ Soluble in diols such as A-Leen 5 or propanediol
- ▶ Formulation identical to Resveratrol extracted from red grapes



	ORIGIN	NATURAL ORIGIN INDEX ⁽¹⁾	FORM/ODOUR	pH RANGE	RECOMMENDED USE LEVEL	FORMULATION GUIDELINES
Active Ingredients						
Fresh'in	Synthetic	0	White crystalline solid	Unlimited	0.04 ▶ 1.5% ⁽²⁾	Added to the oil phase of an emulsion or solubilise in a diol or an alcohol.
Fresh'in Green+	Derived-natural	0.55 ⁽³⁾	Clear colourless liquid	Unlimited	0.1 ▶ 2.5% ⁽⁴⁾	Added at any stage of the formulation, soluble/dispersible in water.
Resve	Natural	1	White to off-white powder	max. 7	0.1 ▶ 1.0%	Can be added to the water or oil phase, preferably under hot conditions and before emulsification. Can also be dissolved in an alkanediol (e.g. up to 7% in A-Leen 5) and added as a premix.

(1) ISO 16128, calculation based on renewable carbon

(2) Max recommended use level for a leave-on body application: 0.04%

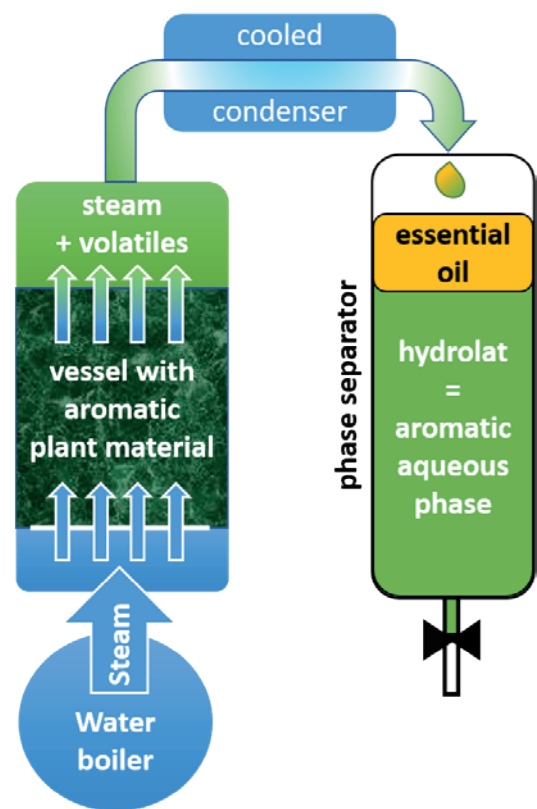
(3) Based on molecular mass

(4) Max recommended use level for a leave-on body application: 0.1%



Hydra-Leen® range

Stabilized Hydrolats - the Natural Fragrance



Hydra-Leens are scented waters that are obtained as a by-product of the steam distillation of essential oils.

Hydra-Leens make natural hydrolats more accessible to the cosmetic industry.

A long shelf life is achieved by the absence of microbes.

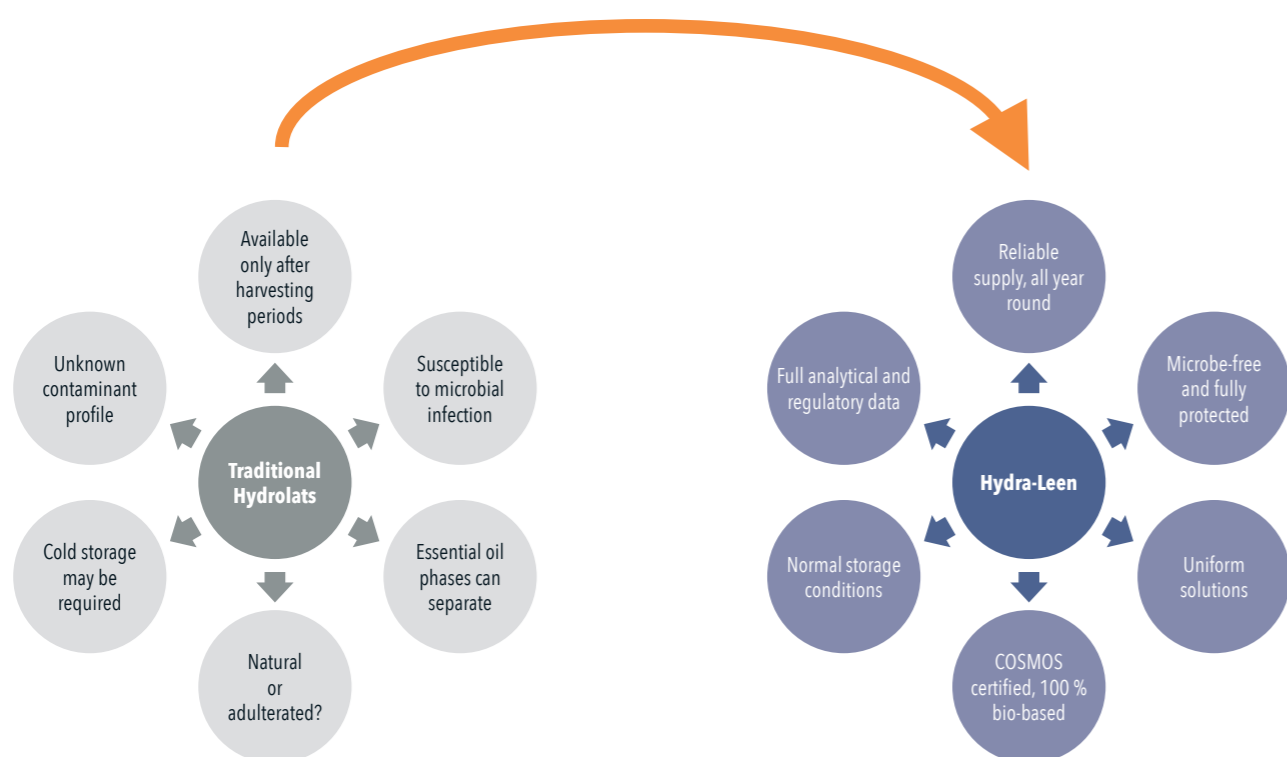
A high level of safety is also ensured by guaranteed specifications for fragrance allergens.



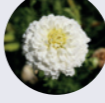
Therefore, Hydra-Leens are the best possible combination of traditional knowledge and modern technology.

- ▶ Safe and **natural fragrances**
- ▶ Obtained from **organic cultivation**
- ▶ Analysed for fragrance allergens
- ▶ Stable with a **2-year shelf life**
- ▶ Available all year round
- ▶ **> 99% upcycled**



Hydra-Leen - reliably fresh and stable hydrolats for cosmetics



PRODUCT NAME	PLANT SPECIES, PLANT PARTS	INCI	COUNTRY OF ORIGIN	% UPCYCLED	% ORGANIC
Hydra-Leen range					
Hydra-Leen 8 Neroli BIO	Bitter orange, flowers	 Citrus Aurantium Amara (Bitter Orange) Flower Water, Caprylyl Glycol, Glycerin, Water	Morocco	>99%	99.4%
Hydra-Leen 8 Rose BIO	Damask rose, flowers	 Rosa Damascena Flower Water, Caprylyl Glycol, Glycerin, Water	Morocco	>99%	99.5%
Hydra-Leen 5 Rose BIO	Damask rose, flowers	Rosa Damascena Flower Water, Pentylene Glycol	Morocco	100%	97.5%
Hydra-Leen 8 Lavender BIO	Lavender, flowers	 Lavandula Angustifolia (Lavender) Flower Water, Caprylyl Glycol, Glycerin, Water	France	>99%	99.5%
Hydra-Leen 8 Camomile BIO	Roman chamomile, flowers	 Anthemis Nobilis Flower Water, Caprylyl Glycol, Glycerin, Water	France	>99%	99.5%

Formulation tip: All Hydra-Leens are water soluble. They can be used up to 100% use-level and are preferably added at the end of the formulation process at room temperature.

Botanical Extracts

Tailormade to fit your concept

Extraction expertise

Nature is an inexhaustible source of cosmetic active ingredients. We explore this potential in our **dedicated extraction laboratory**. Here we use the latest technologies to unlock the most exciting bio-resources for our customers.

Our focus is on the exploitation of renewable plant-based raw materials and the development of botanical extracts using our proprietary extraction processes. For this purpose, we have established **collaborations with some of the industry's leading academic research partners**.

Minasolve garden - fully traceable & sustainable

Extracts should be sustainable, effective and kind to the skin. It all starts with the extraction solvent, that is why we make it ourselves. A patent-pending, optimized extraction process with A-Leen 5 is used to improve yields and save energy.

- ▶ **Richer extracts with superior phytochemical profiles** - Higher extraction yields compared to water and 80% ethanol.
- ▶ **Fully traceable supply chain** from solvents to final extracts.
- ▶ **Energy saving** - evaporation of the solvent is not necessary.
- ▶ **Safe handling** - low volatility and flammability.
- ▶ **Compatible** with all skin types.

Our patent-pending extraction process respects the 6 principles of **Green Extraction**. Our solvent system offers the possibility to modulate its polarity, which considerably increases the scope for the extraction of less polar molecules. This results in **rich extracts** with optimal concentrations of active ingredients.

You can count on our technical support based on our in-depth knowledge of bio-based solvents, green extraction processes and botanical extracts. As experts in cosmetic ingredients, we ensure the **stability, compatibility and regulatory compliance of our extracted active ingredients**.

Upcycling

"The new responsible concept"



Upcycling is a responsible concept, aimed at **transforming waste** destined for disposal into **value-added products**. MINASOLVE proposes an increasing number of upcycled solutions:



A-Leen 5 (p. 4)

Obtained by upcycling sugarcane bagasse.



A-Leen Aroma-3 (p. 5)

Made by upcycling of cinnamon by-products.



Hydra-Leens (p. 24-25)

Scented waters that are obtained as a by-product of the steam distillation of essential oils.

Formulation aKademy

Training courses at Minasolve

Sharing ideas is a driving force for innovation. We therefore offer practical training courses for cosmetic formulators at our Formulation aKademy in Louvain-la-Neuve, Belgium. The location is 30 km south of Brussels and offers favourable international transport connections. The direct, hands-on collaboration between cosmetic formulators and our technical team is an excellent opportunity for our guests to **gain inspiration** for their daily work.

Please do not hesitate to contact us if you are interested in participating in our Formulation aKademy.

We look forward to welcoming you!



Formulation aKademy

MINASOLVE
RECIPIENTS FOR YOUR APPLICATIONS

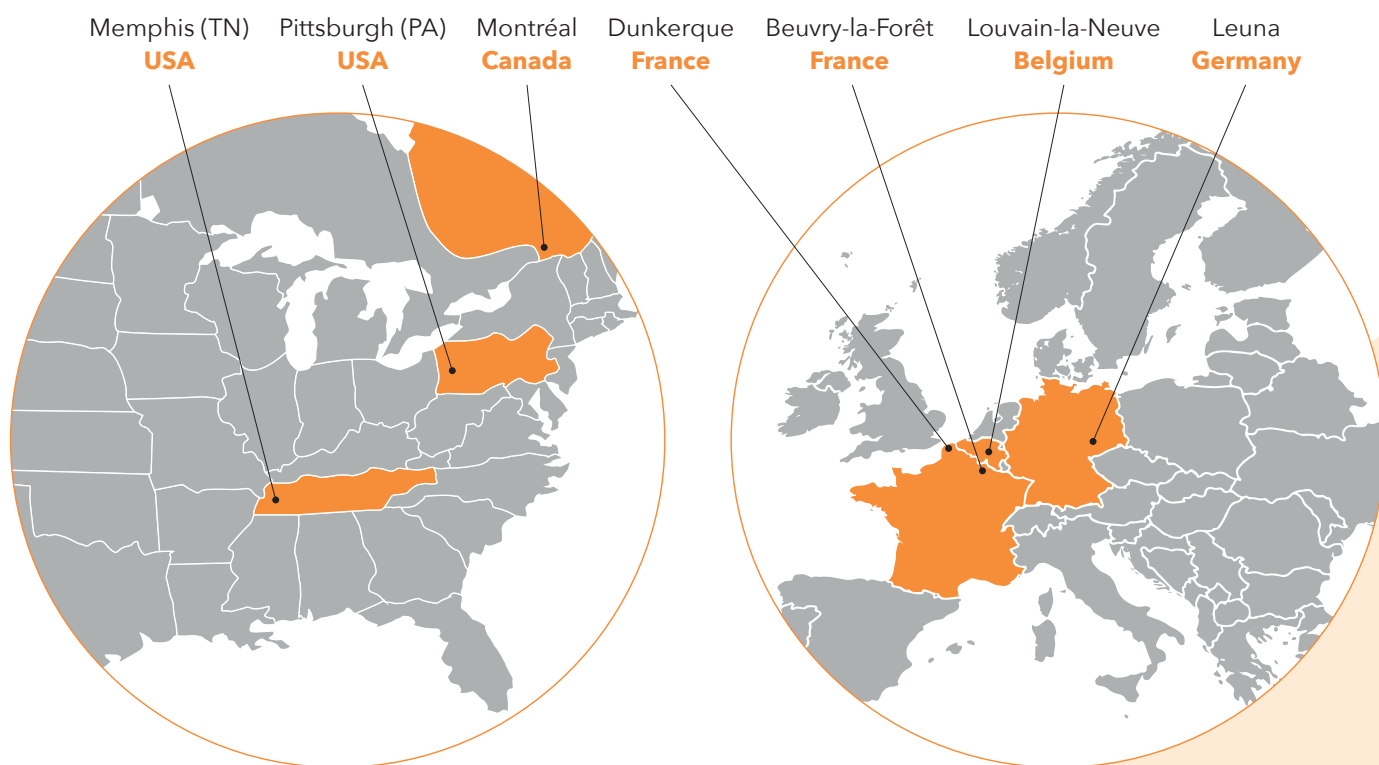


Minasolve® is an affiliate of Minafin® Group

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.**



300
M€ SALES



1050
EMPLOYEES



150
SCIENTISTS



7
PRODUCTION
SITES

MINAFIN[®]
GROUP

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.

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