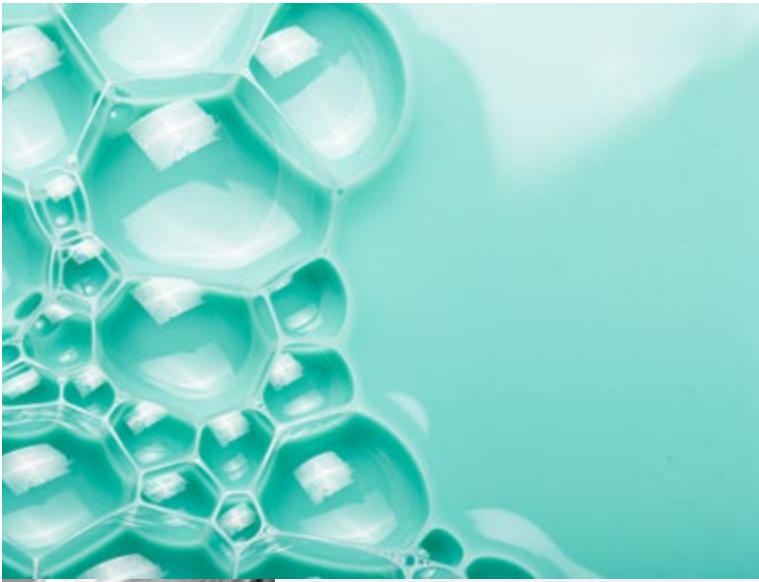


symrise 

*Functionals*

MAKING THE INDISPENSABLE  
ABSOLUTELY IRRESISTIBLE



## STABILITY AND SENSORIALITY

*a Must-have*

### **F**UNCTIONALS – THE HEART OF COSMETIC FORMULATIONS

The Symrise Functionals portfolio comprises high performance ingredients that form the backbone for the majority of cosmetic formulations. They are literally indispensable for the creation of safe and stable products and ensure that active ingredients can exhibit their full effectiveness.

Our profound expertise in Actives, UV, Micro Protection, Botanicals and Colors paired with many years of experience in formulation work, enables us to provide viable solutions for all kinds of textures and desired skin sensations.

#### SYMRISE RANGE

**EMULSIFIERS**

**EMOLLIENTS**

**SOLUBILIZERS**





EXPERTISE & INNOVATION

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*Beyond Basics*

# SYMRISE & FUNCTIONALS

A LONG HISTORY OF KNOW-HOW

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The development of successful cosmetic ingredients is only possible with a deep insight into consumer demands. Symrise is constantly monitoring the cosmetic market to understand the different requirements of consumers all over the world. We do not only share this information with our customers, it also drives our research and development of new functional ingredients. Making use of this knowledge enables us to offer cosmetic ingredients that provide viable solutions for all aspects of modern product development.

## DECADES OF EXPERIENCE

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We are looking back on decades of experience in R&D, leading to successful launches of **innovative functional ingredients** like our PCL-Liquid®, mimicking the protection mechanisms of the preen-gland oil of waterfowl in the 1960s already.

## INSPIRATION BEYOND COSMETICS

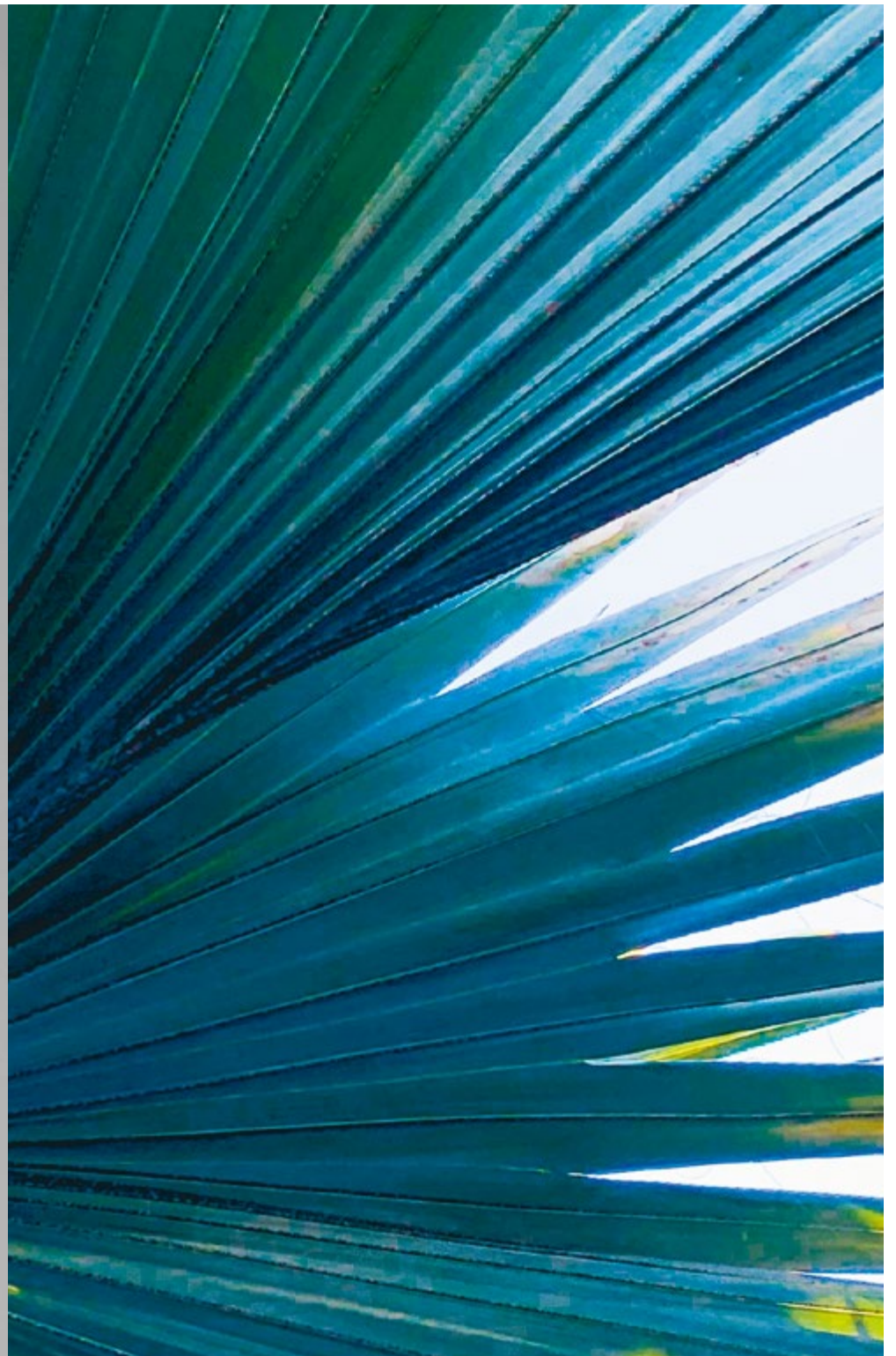
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Our research is driven by inspiration from areas beyond cosmetics. Consequently, Symrise was one of the first to identify **the benefits of food approved emulsifiers** and introduced the fully nature-based OW-emulsifiers Dracorin CE® F and Dracorin® GOC.

## TARGETED EXPLORATION

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Beyond sensoriality and formulation properties, we explore also other dimensions. For instance, our SymMollient® W/S has demonstrated itch-preventing proven efficacy in cosmetic rinse-off formulations. SymMollient®PDCC and SymMollient® S green, emollients based on 100% renewable ingredients, underline our consequent commitment towards a high degree of sustainability and naturalness in cosmetics.



## SUSTAINABILITY

—  
...IT'S NOT JUST *Being Green*

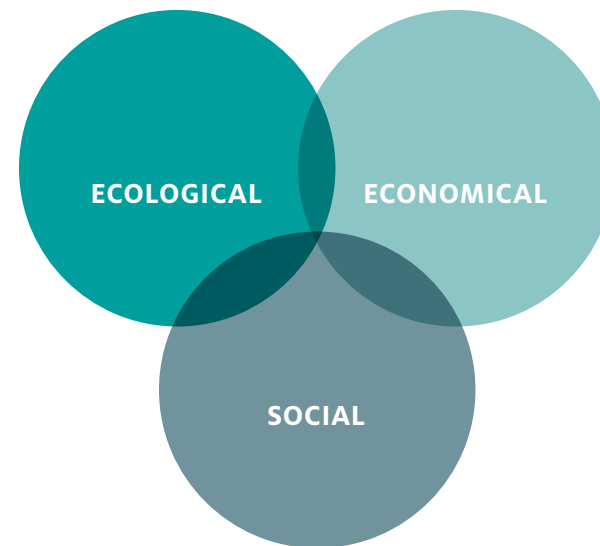
### **R**ESPONSIBLE ACTION ALONG THE SUPPLY CHAIN

Symrise's consistent commitment to sustainability is reflected in our Functionals portfolio.

The employment of **renewable raw materials** is a pivotal criterion in new product development. Their sourcing should always take into account **the protection of natural resources**. Hence, all palm oil or palm kernel oil derived products are offered **RSPO MB certified**.

We are striving to comply with standards for natural cosmetics. Whenever possible, Symrise Functionals provide environmental benefits in their application (e.g. energy saving or alternatives to less sustainable products).

### 3 PILLARS OF SUSTAINABILITY







**EMOLLIENTS**

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*Provide Softness*  
AND SENSORIAL HIGHLIGHTS



# THE KEY OF SENSORIALITY

MAKE THE DIFFERENCE

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**E**mollients play a key role in cosmetic products for the creation of different sensorial profiles.

Today consumers of cosmetic products are looking for **non-sticky and non-greasy skin care textures** to achieve or maintain a smooth and supple skin. They want to have cosmetics that **quickly absorb and leave little to no residue**.

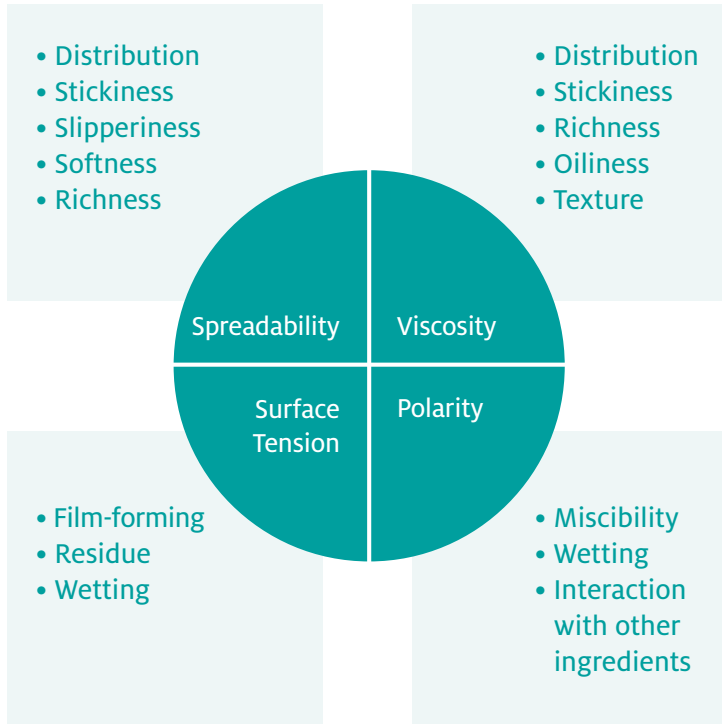
Emollients play an important role in the sensorial profile of an emulsion. In modern cosmetic products they are characterized by their **smoothing and softening effects to the skin**.

Depending on parameters like **spreadability, polarity, viscosity and volatility, the skin feel of an emulsion can be adapted**.

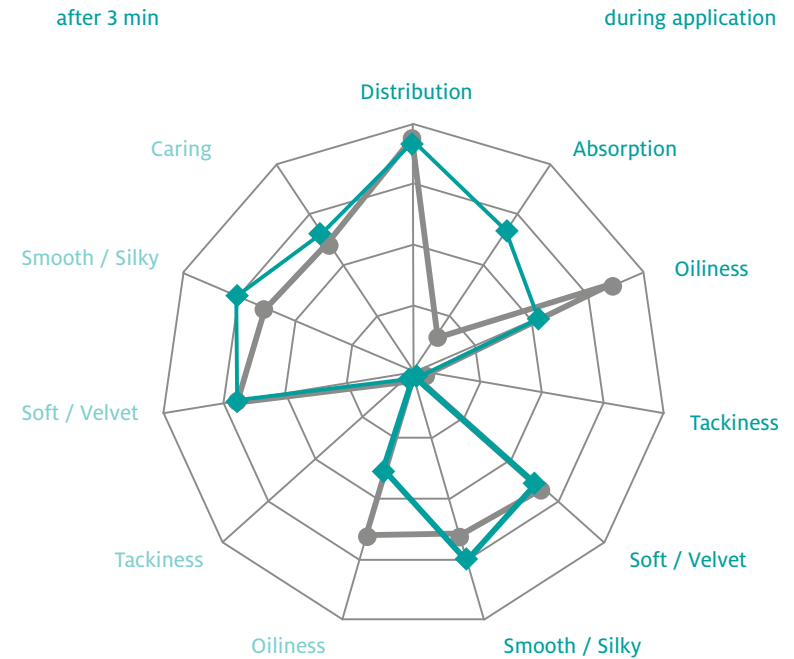


EMOLLIENTS

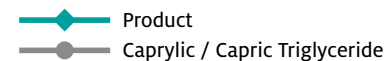
# HOW TO FIND THE RIGHT EMOLLIENT?

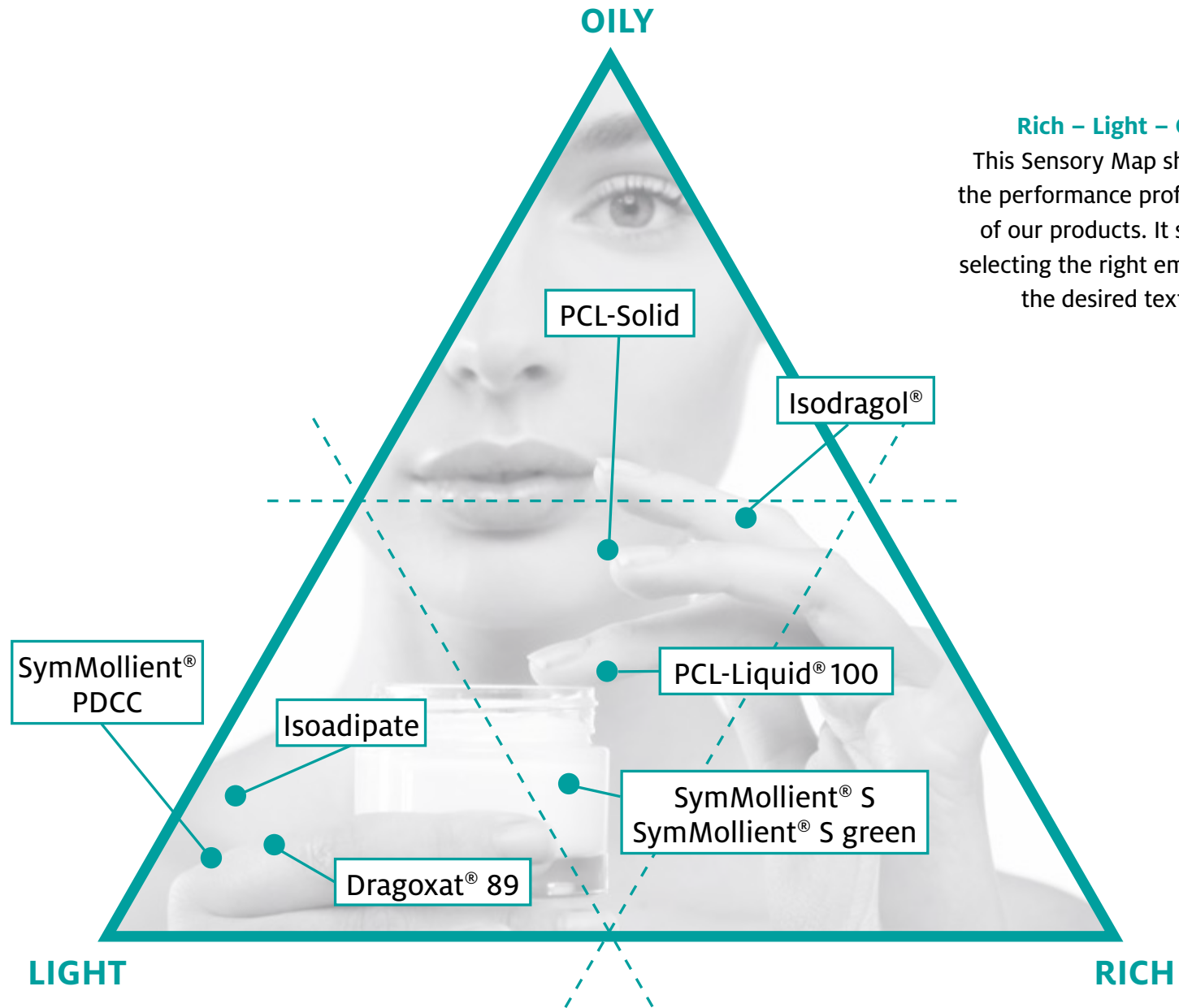


Lipophilic emollients are typically described by physico-chemical parameters. Those parameters correlate to a certain point with application and sensorial attributes.



The Sensory Profile is a useful tool to describe the expectation of an emollient's contribution to the skin feel of the final formulation.





**Rich – Light – Oily?**  
 This Sensory Map showcases the performance profile of each of our products. It supports selecting the right emollient for the desired texture.



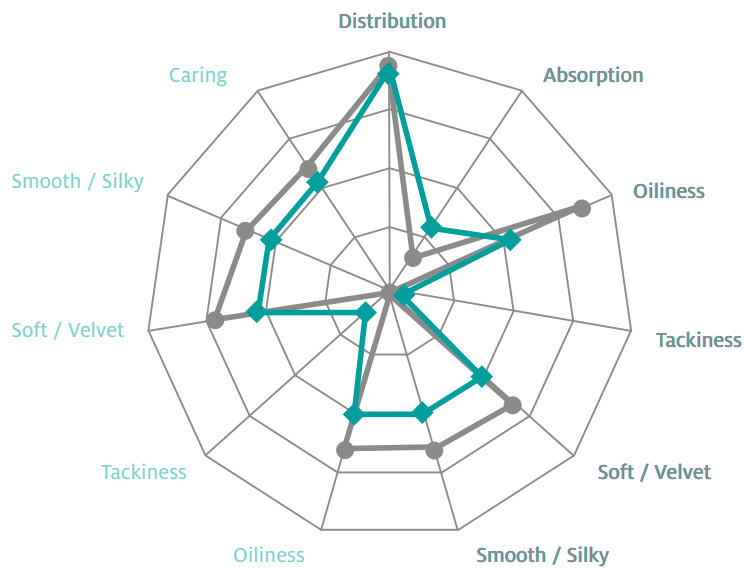
# SYMRISE SOLUTIONS

## Dragoxat® 89

The right choice for light skin care concepts

**INCI: Ethylhexyl Isononanoate**

Product Number: 109854  
 Appearance: Colorless liquid, neutral odor  
 Recommended Use Level: 1 – 10%



- Makes the **skin soft, smooth and supple**
- Shows an excellent **spreadability**
- With a **silicone-like** touch on the skin
- Provides a unique **dry initial feel** during rub-in
- Leaves **no film** on the skin
- **Reduces the tackiness** of formulations

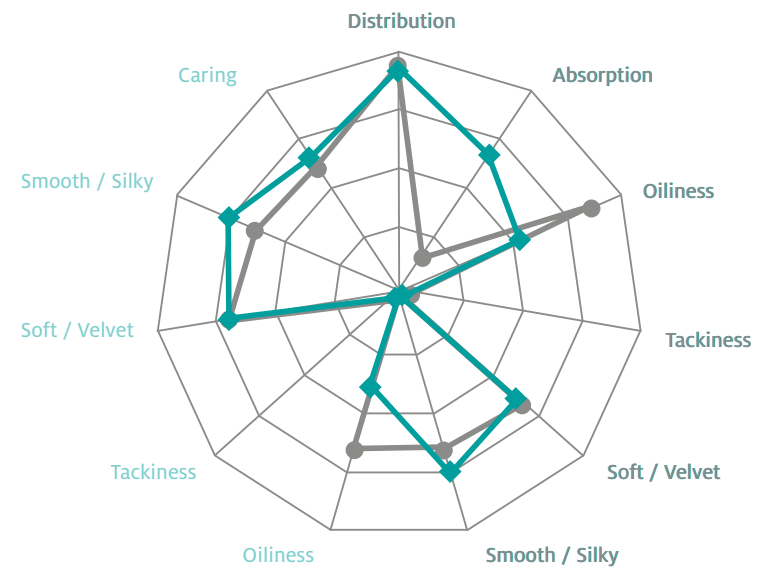
◆ Product  
 ● Caprylic / Capric Triglyceride

## SymMollient® PDCC

Dry and silky emollient for modern formulation concepts

**INCI: Propanediol Dicaprylate/Caprate**

Product Number: 102119  
 Appearance: Colorless transparent liquid, faintly fatty odor  
 Recommended Use Level: 1 – 10%



- Fully based on **renewable sources**
- Leaves a **light, dry, non-oily, smooth and silky** skin feeling
- **Excellent solubilizer** for crystalline oil-soluble UV filters
- Very good wetting and **suspending agent** for insoluble powders

## SymMollient® S

A saturated wax ester with silicone-like skin feel

### INCI: Cetearyl Nonanoate

Product Number: 181598  
 Appearance: Colorless crystalline solid  
 Recommended Use Level: 1 – 10%



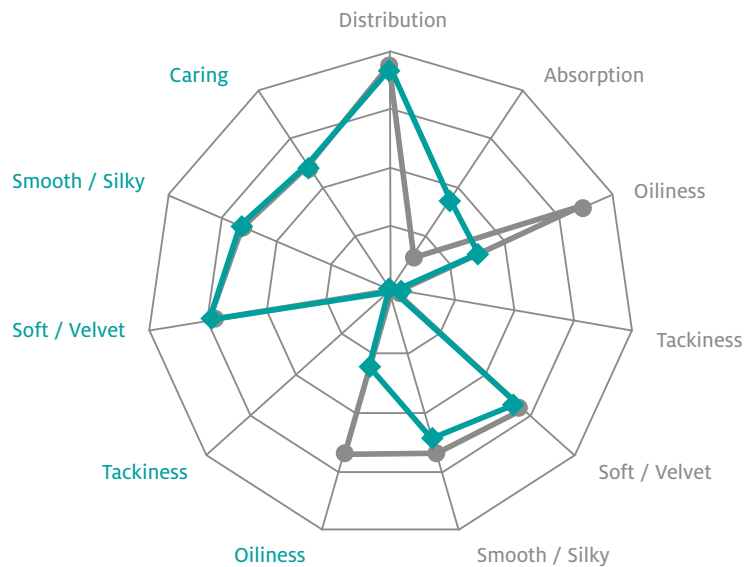
## SymMollient® S green

A 100% nature-based wax ester with silicone-like skin feel

### INCI: Cetearyl Nonanoate

Product Number: 103227  
 Appearance: Colorless to pale yellow crystalline solid  
 Recommended Use Level: 1 – 10%

SymMollient® S green convinces with the perfect interplay of sustainably sourced raw materials and the well-known product performance of SymMollient® S



### Silicone alternative

- Melting at skin temperature, creates a **silky, non-oily skin feel**
- It leaves a dry, **silicone-like touch** on the skin
- Especially in **combination with SymMollient® PDCC**, it offers a **sustainable alternative** to D5 and complex silicone derivatives

### Moisturization effect

- In an *in vivo* study it significantly **increases skin hydration** and decreases the TEWL versus placebo and untreated skin

### Improves the sensorial impact of pigments in cosmetic formulations

- **Reduces the whitening effect**, e.g. in sun care formulations, and **improves the skin feel** of formulations with high pigment load
- **Prevents breakage** in stick formulations
- Used in bar soaps it **reduces cracking**, improves skin feel and lather

◆ Product  
 ● Caprylic / Capric Triglyceride

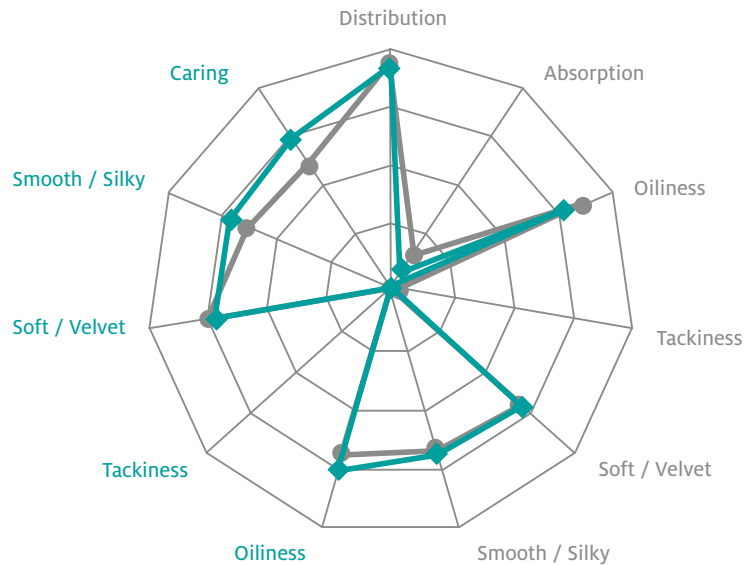
# PCL-Liquid® 100

## PCL-Liquid®

Bioinspired ester oils that help to protect the skin

**INCI: Cetearyl Ethylhexanoate**  
(Cetearyl Ethylhexanoate, Isopropyl Myristate)

Product Number: 660089 (660084)  
Appearance: Colorless liquid, neutral odor  
Recommended Use Level: 1 – 10%



- It helps the skin to **maintain its equilibrium and the natural moisture content**
- **Spreads quickly** on skin and has a **strong film-forming effect** without being occlusive
- Its low variation of viscosity with temperature makes it particularly **suitable for W/O emulsions**

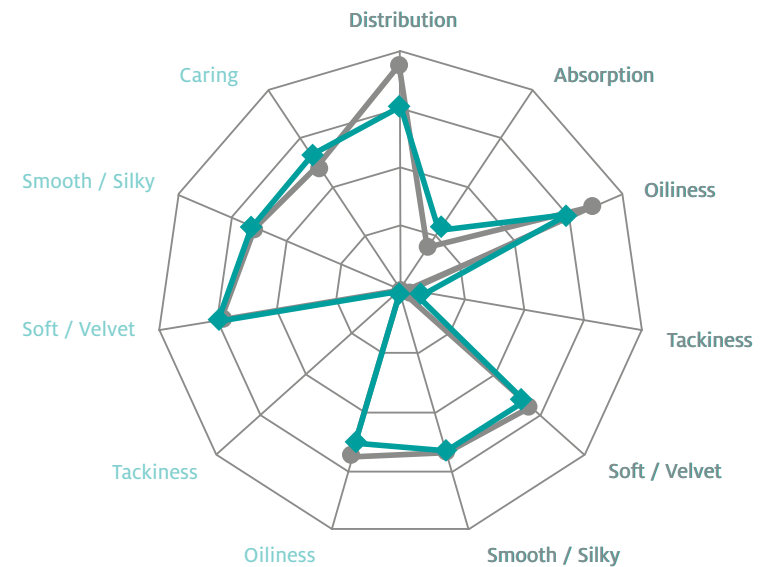
◆ Product  
● Caprylic / Capric Triglyceride

# PCL-Solid

A reliable emollient with valuable caring properties

**INCI: Stearyl Heptanoate, Stearyl Caprylate**

Product Number: 660086  
Appearance: Colorless, crystalline solid  
Recommended Use Level: 1 – 10%



- It **melts quickly** when applied on the skin
- Even though PCL-Solid is **less oily**, it shows **caring properties**
- **Non-greasy**

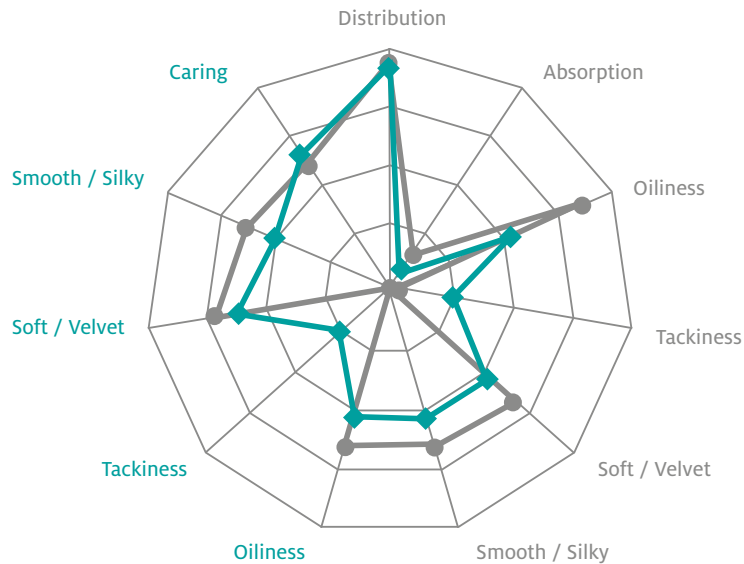


# Isodragol®

A viscous emollient with softening and caring effect

## INCI: Triisononanoïn

Product Number: 660061  
 Appearance: Clear, colorless to pale yellow liquid  
 Recommended Use Level: 1 – 10%



- Due to its viscosity, it comes with a perceivable **cushion effect** and a **prolonged play time** on the skin
- A low surface tension leads to **outstanding wetting properties for pigments**
- It gives a better pay-off (color deposition) to **lipstick formulations**

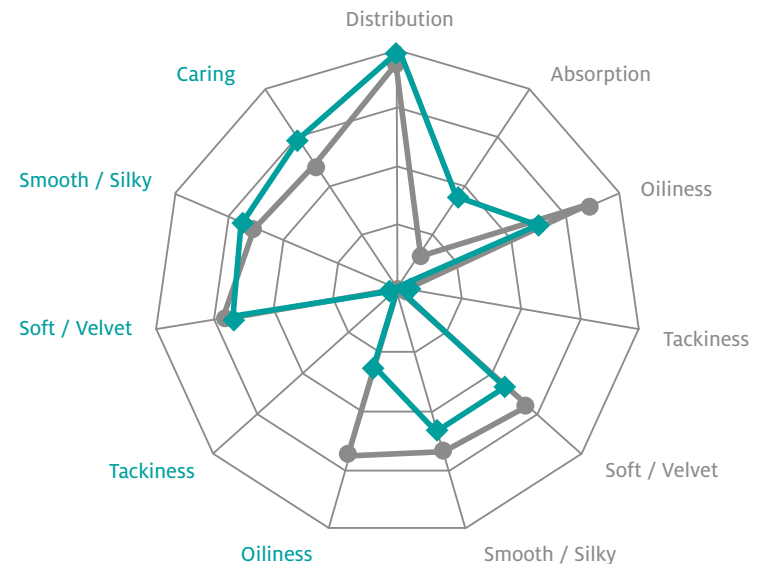
◆ Product  
 ● Caprylic / Capric Triglyceride

# Isoadipate

High-quality emollient and solvent for lipophilic actives

## INCI: Diisopropyl Adipate

Product Number: 660014  
 Appearance: Low viscous, clear colorless liquid  
 Recommended Use Level: 1 – 25%



- Leaves the skin **smooth and silky** after application
- Due to its **high spreading** capacity, it is very easy to distribute
- The **oiliness is low** during and after application

EMOLLIENTS

# SymEffect™ Sun

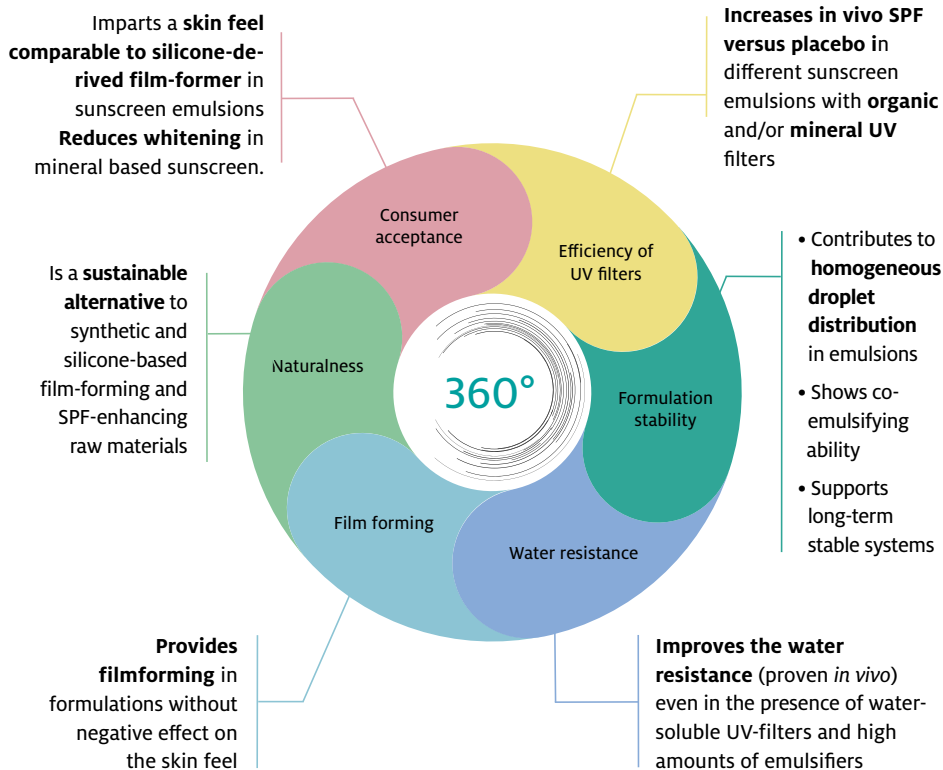
360° approach to achieve optimized sunscreen formulations



**INCI: Cera Alba (Beeswax), Sodium Stearoyl Lactylate**

Product Number: 105604  
 Appearance: White to light yellow pellets  
 Recommended Use Level: 1.5 – 5%

COSMOS compliant



# SymEffect™ UV

For maximized UV protection



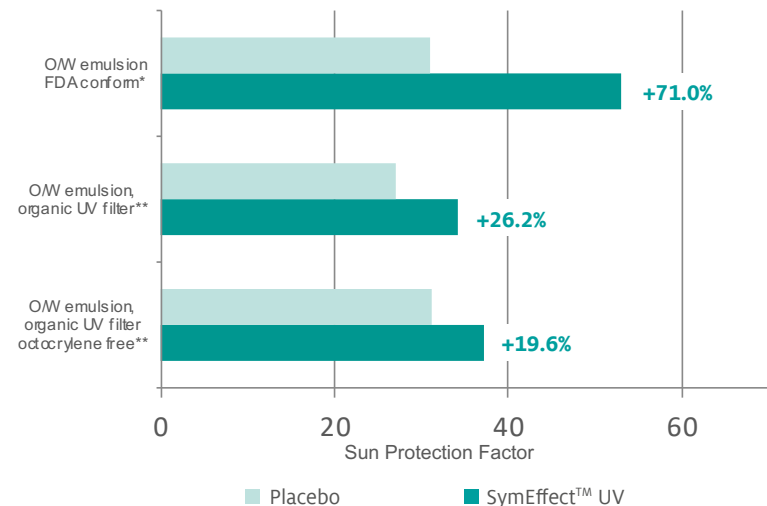
**INCI: Hydrogenated Palm Oil, Saccharum Officinarum (Sugarcane) Extract**

Product Number: 104073  
 Appearance: light to orange brown pellets  
 Recommended Use Level: 2 – 5%

- Imparts a significant boosting effect with organic & mineral UV filters, proven in-vivo
- Increases the value of both UVA & UVB absorbance and thus offers a broadspectrum solution
- Allows to reach higher sun protection factors with a constant amount of UV filters
- Supports to emulsions´ texture and viscosity without significant altering of the sensory profile of given formulations
- Offers a sustainable and vegan solution to optimize sunscreen formulations

## SPF INCREASE - IN VIVO STUDY

Proven efficacy with organic sunscreen filters, with different filter combinations and test methods



Screening according to: \*FDA Monograph FDA Standard 21CFR201.327 \*\*ISO 24444:2010

# SymMollient® W/S

A hydrophilic emollient with versatile properties beyond skin feel

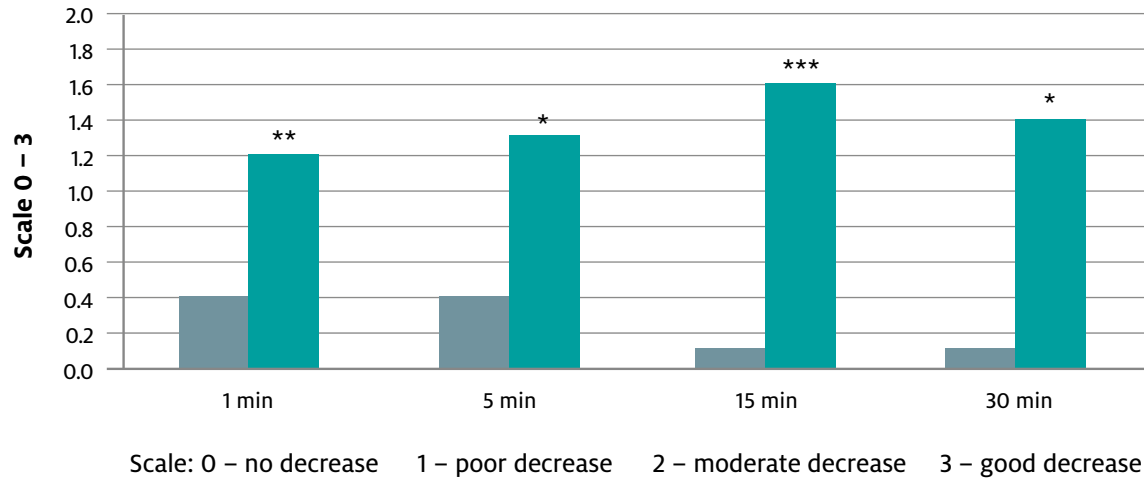
**INCI: Trideceth-9, PEG-5 Isononanoate, Water (Aqua)**

Product Number: 174306  
Description: Optimized aqueous blend of a fatty acid polyglycol ester and a fatty alcohol polyglycoether  
Appearance: Clear, colorless to light yellow liquid  
Recommended use level: 1 – 5%

- Hydrophilic emollient for shampoos, shower and bath preparations
- Provides a **soothing sensation** on scalp or skin and **combats itching**
- Effective **increase of skin moisture**
- Improves the skin tolerance of surfactants
- Provides a **pleasant sensory feeling** and skin mildness not only immediately during cleansing, but also in the long term
- Improves the suppleness of the skin by preserving its lipid content: **refatting effect**
- Regulates the moisture content of the skin: **anti-dehydrating effect**
- Imparts a **creamy foam** to surfactant preparations

## INSTANT ANTI-ITCH

Shampoo with 2% SymMollient® W/S vs Placebo (1-5-15 and 30 min, single application)



SymMollient® W/S instantly decreases itching sensation significantly.

■ Placebo  
■ 2% SymMollient® W/S

\* p < 0.01  
\*\* p < 0.05  
\*\*\* p < 0.001



**EMULSIFIERS**

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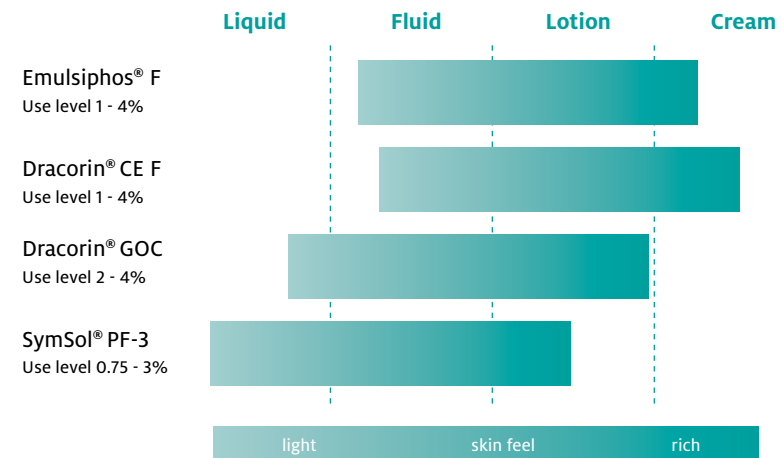
*Guarantee Stable Formulations*

AND PLEASANT SKIN FEEL

# STABILITY AND MUCH MORE

A WIDE RANGE OF TEXTURE AND SENSORIALITY

A widely-used type of personal care formulations are emulsions found in skin care, sun care, body care and color cosmetics. Emulsifiers are the most important ingredients in order to **guarantee stable emulsions**. Beyond this basic requirement, emulsifiers have a remarkable influence on the **sensorial skin feel** depending on their composition and the way they are formulated. By changing the emulsifier, the formulator can tailor attributes like texture, appearance, pick-up and the distribution of an emulsion. All these attributes have an impact, especially on the initial skin feel. Following the needs of our customers, we have recently expanded our portfolio with **COSMOS approved ingredients**.



EMULSIFIERS

# Emulsiphos® F

When mildness matters



## INCI: Potassium Cetyl Phosphate, Hydrogenated Palm Glycerides

Product Number:	114083
Description:	Potassium salt of an anionic phosphate ester in a plant derived lipid matrix
Appearance:	Easy-to-use flakes
Recommended Use Level:	1 – 4 %

- Can be used for **thin fluid formulations**, but also for **soft creams**
- Works also as a **co-emulsifier at low dosages** (0.2 – 0.5%)
- Flaked form makes it **easy to handle**
- The combination with a plant-based lipid component **facilitates the ability of dispersion**, both in the oil or aqueous phase and inhibits foam formation (compared to sole PCP\*)
- Bioinspired molecular structure promoting the ability to form liquid crystalline structures **similar to skin lipids**
- Clinically proven skin compatibility makes it particularly suitable for **sensitive skin**
- Provides even challenging formulations (e.g. high SPF Sun Care) with an **appealing skin feeling**
- Suitable for natural cosmetics

\*Potassium Cetyl Phosphate

# Dracorin® CE F

Established food emulsifier



## INCI: Glyceryl Stearate Citrate

Product Number:	188175
Description:	Citric acid ester of mono- and diglycerides of stearic acid
Appearance:	Easy-to-use flakes
Recommended Use Level:	1 – 4 %

- A powerful anionic **O/W emulsifier and co-emulsifier**
- Flakes form guarantees **easy handling** and no dust formation in production
- Particularly suitable for the emulsification of **polar oils**
- Exhibits best emulsifying performance at **slightly acidic pH** (well corresponding to the natural pH of human skin)
- Improves the consistency of the formulation
- Excellent skin and eye compatibility
- **100% based on vegetable**, renewable feedstock
- Established food emulsifier
- Suitable for natural cosmetics

## SymSol® PF-3

A robust all-rounder

**INCI: Water (Aqua), Pentylene Glycol, Sodium Lauryl Sulfoacetate, Sodium Oleoyl Sarcosinate, Sodium Chloride, Sodium Oleate**

Product Number: 358712  
Description: PEG-free O/W Emulsifier  
Appearance: Liquid blend of anionic surfactants  
Recommended Use Level: 0.75 – 3 %

- Forms **thin liquid emulsions to soft lotions** when used as sole emulsifier
- Increases the stability when used as **co-emulsifier**
- Promotes the formation of small oil droplets
- **Remarkable stability** in high pigment content applications (up to 25%)
- Tolerates **high amount of electrolytes**
- Builds **stable SPF 50+** sun protection sprays without co-emulsifier
- Use in **cold processes** without issues

## Dracorin® GOC

Designed for sustainable use



COSMOS  
APPROVED

**INCI: Glyceryl Oleate Citrate, Caprylic/Capric Triglyceride**

Product Number: 683541  
Description: Citric acid ester of mono- and diglycerides of oleic acid blended in neutral oil  
Appearance: Easy-to-use liquid  
Recommended Use Level: 2 – 4 %

- **Easy to process** because of its liquid form
- Is **effective at low dosage** levels
- Beside conventional emulsification, **cold/cold or hot/cold processing** is possible
- Has an excellent capability to build cold/cold processed O/W emulsions, even without homogenizing
- Allows also the incorporation of active ingredients and UV filters in **significant amounts**
- Acts as a **natural chelating agent**
- With proven skin tolerability - even **for sensitive skin**
- 100% based on vegetable, **renewable** feedstock
- **Food grade**
- Suitable for natural cosmetics (**COSMOS approved**)

**SOLUBILIZERS**

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# *Dissolve Solubilizing*

ISSUES IN AQUEOUS BASED FORMULATIONS





# SOLUBILIZATION AND STABILIZATION

ALWAYS SEEKING CLARITY

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The proper incorporation of oil-soluble actives or botanicals is key for their performance. Achieving a clear formulation can become a challenge when formulating aqueous or hydroalcoholic products. Solubilization of fragrances in aqueous based cosmetic products is a prerequisite for a stable formulation.

Symrise solubilizers are optimized blends of **amphiphilic substances giving synergistic solubilizing efficacy**. The development of these blends benefits from our in-house expertise in Actives, Botanicals, Sun Protection and Fragrances.



SOLUBILIZERS

OUR SOLUBILIZERS ARE PARTICULARLY SUITABLE FOR SOLUBILIZING OIL-SOLUBLE ACTIVE INGREDIENTS, ESSENTIAL OILS AND PERFUME OILS IN AQUEOUS AND AQUEOUS-ALCOHOLIC SYSTEMS.

THEY CAN BE USED IN BOTH ACIDIC AND ALKALINE MEDIA.

## 660352 Solubilizer

**INCI: PEG-40 Hydrogenated Castor Oil, Trideceth-9, Propylene Glycol, Water (Aqua)**

Product Number: 660352  
Appearance: Clear, colorless to pale yellow liquid  
Recommended Use Level: 0.5 – 10%

## 611674 Solubilizer

**INCI: PEG-40 Hydrogenated Castor Oil, Trideceth-9, Water (Aqua)**

Product Number: 611674  
Appearance: Clear, colorless to pale yellow liquid  
Recommended Use Level: 0.5 – 10 %

## SymSol® PF-3

Non-ethoxylated and effective

**INCI: Water (Aqua), Pentylene Glycol, Sodium Lauryl Sulfoacetate, Sodium Oleoyl Sarcosinate, Sodium Chloride, Sodium Oleate**









Product Number: 358712  
Description: Non-ethoxylated solubilizer  
Appearance: Liquid blend of anionic surfactants  
Recommended Use Level: 0.75 – 5% (rinse-off)  
0.75 – 3% (leave-on)

- Non-ethoxylated solubilizer for fragrances or botanical oils in aqueous systems
- Ability to build micelles in aqueous solutions at very low concentrations makes it an excellent choice for micellar cleansing products
- Low levels of surfactants help to **reduce the skin irritation** potential of cleansing products













# SYMRISE FUNCTIONALS

## EMOLLIENTS






Product Name / Code	INCI	Other information
<b>SymMollient® PDCC</b> <b>102119</b>	Propanediol Dicaprylate/Caprate	NOI: 1 
<b>Dragoxat® 89</b> <b>109854</b>	Ethylhexyl Isononanoate	 
<b>Isodragol®</b> <b>660061</b>	Triisononanoïn	 
<b>PCL-Liquid® 100</b> <b>660089</b>	Cetearyl Ethylhexanoate	NOI: 0,67  
<b>PCL-Liquid®</b> <b>660084</b>	Cetearyl Ethylhexanoate, Isopropyl Myristate	NOC: 88%  
<b>Isoadipate</b> <b>660014</b>	Diisopropyl Adipate	 
<b>PCL-Solid</b> <b>660086</b>	Stearyl Heptanoate, Stearyl Caprylate	NOC: 79%  
<b>SymMollient® S</b> <b>181598</b>	Cetearyl Nonanoate	NOI: 0,64 
<b>SymMollient® S green</b> <b>103227</b>	Cetearyl Nonanoate	NOI: 1   
<b>SymEffect™ Sun</b> <b>105604</b>	Cera Alba (Beeswax), Sodium Stearoyl Lactylate	NOC: 100%  
<b>SymEffect™ UV</b> <b>104073</b>	Hydrogenated Palm Oil, Saccharum Officinarum (Sugarcane) Extract	NOC: 100%   
<b>SymMollient® W/S</b> <b>174306</b>	Trideceth-9, PEG-5 Isononanoate, Water (Aqua)	



## EMULSIFIERS

Product Name / Code	INCI	Other information
<b>Emulsiphos® F</b> 114083	Potassium Cetyl Phosphate, Hydrogenated Palm Glycerides	NOC: 83%   
<b>Dracorin® CE F</b> 188175	Glyceryl Stearate Citrate	NOI: 1   
<b>SymSol® PF-3</b> 358712	Water (Aqua), Pentylene Glycol, Sodium Lauryl Sulfoacetate, Sodium Oleoyl Sarcosinate, Sodium Chloride, Sodium Oleate	NOC: 79% 
<b>Dracorin® GOC</b> 683541	Glyceryl Oleate Citrate, Caprylic/Capric Triglyceride	NOC: 100%   

## SOLUBILIZERS

<b>Solubilizer</b> 660352	PEG-40 Hydrogenated Castor Oil, Trideceth-9, Propylene Glycol, Water (Aqua)	 
<b>Solubilizer</b> 611674	PEG-40 Hydrogenated Castor Oil, Trideceth-9, Water (Aqua)	 
<b>SymSol® PF-3</b> 358712	Water (Aqua), Pentylene Glycol, Sodium Lauryl Sulfoacetate, Sodium Oleoyl Sarcosinate, Sodium Chloride, Sodium Oleate	NOC: 79% 

NOI: Natural Origin Index (ISO 16128)

NOC: Natural Origin Content (ISO 16128)



COSMOS Approved



China Compliant



Suitable Vegan according to Symrise policy



Nature Approved



*always  
inspiring more ...*



[www.symrise.com](http://www.symrise.com)

Visit [www.symselect.com](http://www.symselect.com) to request samples and discover new ingredients.

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