



Olivatis® 15C

INCI NAME	Olive Oil PEG-8 Esters
CAS N.	103819-46-1

Ultra-mild moisturizing surfactant, lipid layer promoter, skin nourishing, conditioner

Although modern chemistry keeps developing new ingredients for the personal care industry, vegetal oils still maintain their important role in many formulations.

While it is relatively easy to use vegetal oils in oleolites or emulsions, it is more difficult to develop clear products containing vegetal oils in sufficient quantities as to guarantee their efficacy. The addition of an oil to an aqueous based product causes inevitable problems of solubilization, that can be solved only by large quantities of solubilizers, with negative effects on viscosity, foam, feel and safety of the product.

Medolla Speciality Chemicals has developed **Olivatis® 15C**, a **water-soluble pure italian olive oil**, produced by an exclusive trans-esterification process where part of the glyceric fraction of olive oil is substituted by the PEG-8.

PHYSICAL / CHEMICAL PROPERTIES	
Appearance:	clear oily liquid
Color:	light yellow
Odor:	very faint, almost undetectable
Acid value:	3,0 max.
Saponification value:	35 - 55
Water:	3,0 % max.
pH (5 % water sol.):	6,0 - 8,5
HLB:	14 about
1,4 Dioxane:	10 ppm max.
Free Ethylene Oxide:	1 ppm max.



The trans-esterification process, without direct condensation with ethylene oxide, makes vegetal oils easily dispersible in water-based systems, maintaining the fatty acid composition and the unsaponifiable fraction of oils. Furthermore, the content of free ethylene oxide and 1,4 dioxane is greatly reduced.

This process results in a superior product with a light color, negligible odor, free of impurities and suitable for shampoos, shower gels, transparent aqueous tonics and splashes, mild cleansing foams, liquids gels, make-up-removers and aqueous or hydro alcoholic solutions of any type, at 1-3 % concentrations. **Olivatis® 15** is non-irritant for skin and eyes (OECD Guidelines for The Testing of Chemicals: TG 492 and OECD Guidelines for The Testing of Chemicals: TG 439) and can also be used in very delicate skin, like babies.

Olivatis® 15C imparts a silky emolliency into water-based hair and skin care formulations. Even in low concentrations, it reduces the tackiness of glycerin and panthenol (this is particularly remarkable in facial tonics and body splashes). Both in hair and skin care products, **Olivatis® 15C** imparts a silicone like lubricancy and feel without being a silicone derivative.

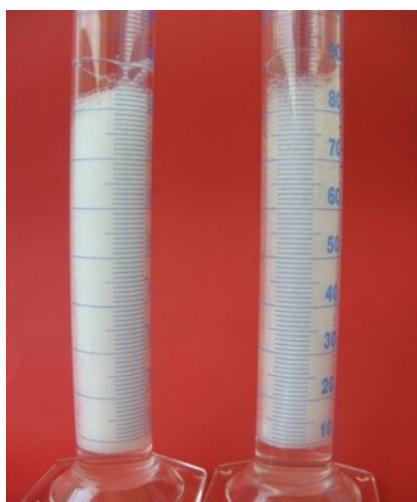
WATER SOLUBILITY

Olivatis® 15C is completely water-soluble and is suitable for transparent shampoos, tonics, body washes and facial washes, leaving products crystalline.

Thanks to its very light color, **Olivatis® 15C** does not affect the color of finished products, allowing formulators to create all shades easily.

FOAMING ACTIVITY IN SHAMPOO AND SHOWER GEL

Despite **Olivatis® 15C** being an excellent emollient, and unlike similar products, it has no negative impact on foam. The two pictures hereunder show the foam of a shampoo with and without **Olivatis® 15C**, immediately and after 30 minutes.



Shampoo + 2% Olivatis 15C Shampoo

Immediate foam



Shampoo + 2% Olivatis 15C Shampoo

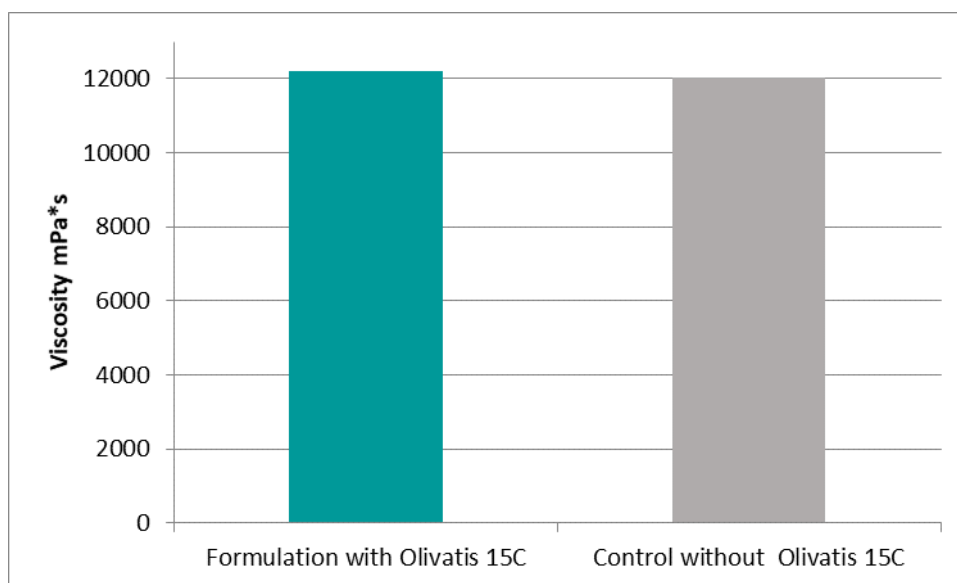
foam after 30 min.



VISCOSITY OF SHAMPOO

As an emollient, **Olivatis® 15C** has no negative impact on viscosity.

OLIVATIS® 15C IMPACT ON A SHAMPOO WITH SLES + CAPB +CAPB



Base formulation

SLES (30%):	27% (9,0% dry matter)
CAPB (30%):	8% (2,4% dry matter)
Olivatis 15C:	2%

Viscosity

Formulation with Olivatis 15C:	12.200 mPa*s
Control without Olivatis 15C:	12.050 mPa*s



USE IN SOAP BAR

Olivatis® 15C can be incorporated easily in soap bars with the other active ingredients and co-formulants, increasing the emolliency and improving considerably the cleansing action of soap bars in hard water.

A detailed study on **Olivatis® 15C** in soap bars is available on request.

FEATURES AND PERFORMANCES OF OLIVATIS 15C AT A GLANCE

Thanks to its complete solubility in water and its excellent emollient and lubricant properties, **Olivatis® 15C** is an ideal ingredient for water-based formulations where it imparts emolliency and improves skin feel.

It reduces the tackiness of glycerine and panthenol and improves skin feel.

In hair products, it has a light conditioning effect and provides hair with an incomparable silky feel.

No impact on foam.

No impact on the viscosity of toiletries.

Its low acidity makes it compatible with most delicate active ingredients used in cosmetics.

Due to its safety and its substantial absence of impurities, it is also recommendable for sensitive skin formulations.

Due to its unique miscibility with water and faint color has no impact on product clarity and final color.

It is easily biodegradable.

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