



## REINOLDERM OLV3

**REINOLDERM OLV3** is a water soluble derivative from olive oil. Olive oil is the best known and most commonly used vegetal lipid in the food and diet industries due to its extraordinary nutritional and salutary properties. It has also been successfully used in therapeutical and dermatological applications.

Olive phytocomplexes are known for their extraordinary eudermic properties (emollient, lenitive, sebum restructuring, photo protective, anti radical etc.), but olive oil is not commonly used in cosmetic preparations. In this industry, the interest for application of olive products is more oriented towards derivatives of recent introduction to the market such as the unsaponifiable part and other elaborations. REINOL spa produces a series of olive oil derivatives for use in the production of quality cosmetic products.

**REINOLDERM OLV3** is a REINOL product, which has been made to be soluble in water via esterification process with polyoxyethylene glycerol from vegetal origin. This process allows us to obtain a stable product with very low acidity, limpid in appearance and of light colour, with a typical slightly perceptible smell of olive oil and with the absence of potential impurities, in particular 1-4 dioxane and free ethylene oxide. Because of its chemical composition, it is easily soluble in water, in alcohol and in the major part of organic solvents, and it can therefore be employed in many formulations. It can be dispersed in liquid fatty alcohols and in synthetic esters from fatty acids. It is odourless, clear, pale yellow coloured; its low acidity value makes it compatible even with the most delicate active principles. OLIVE OIL PEG-7 ESTERS is the INCI name and its most important characteristics are:

- ◆ The emollient and lubricant peculiarities of the precious olive oil promote an enriching effect, which is very appreciated in shampoos, toiletries and personal care formulations.
- ◆ It reduces the irritating action of the compounds of surfactant system, protect skin and damaged hair from delipidification.
- ◆ When enclosed in toiletries formulations, it does not modify the foaming power of the other surfactants.
- ◆ It causes a thickening effect, not fluidising in any case.
- ◆ It is endowed with a good solubilizing power, which is very appreciated in order to disperse

oil, scents and liposoluble active principles in lotions and toiletries.

- ◆ It remove make up in a mild way.
- ◆ It gives very nice after-use feeling on the skin.
- ◆ Because of its good skin and eye compliance, it can be used as an oily compound that permits the absorption of lipophilic active principles in bath and massage formulations.
- ◆ The intermediate HLB value makes it an emulsifier or co-emulsifier in O/W systems.

### **Foaming activity**

In opposition to most of the similar products used in toiletries, **REINOLDERM OLV3** absolutely does not affect the foaming activity of the most commonly used surfactants. It has also a useful stabilizing action on the foam. It can be enclosed in shampoos, foam baths and toiletries in order to increase the foaming activity and the viscosity of the formulation.

### **Biodegradability**

The determination of biodegradability has been made according to the CEE Regulation N. 82\242. **REINOLDERM OLV3** is biodegradable over 90%.

### **Toxicity**

Skin irritation has been tested on human volunteers and *in vitro* (Denaturation of Zein). Such as all REINOL products, **REINOLDERM OLV3** has not been tested on animals, according to the new trend of cosmetic products. Considering the chemical similarity products largely tested in the past, the existing data for chemical analogues allow to define this product as *not irritant* and *not toxic*. An aqueous solution containing 40% of **REINOLDERM OLV3** has been used for the Denaturation of Zein Test. The higher the Zein number, the more irritating the product results. In this case the resulting value has been compared to SLES (aqueous solution), which is one of the most irritating surfactants.

	Zein Number
SLES (27%)	297
<b>REINOLDERM OLV3</b> (40% water sol.)	35

**REINOLDERM OLV3** is a completely water soluble olive oil that allows to formulate using all precious qualities of Italian Olive Oil even in water-based products, such as most of the toiletries formulations. Shampoos, foam or shower gels can be enriched with the virtues of the starting oil.

**REINOLDERM OLV3** is a strong emollient and refatting agent for personal care products; it is 100% active substance that can drastically reduce irritation caused by commonly used surfactant. Thanks to its chemical structure, it can act as a co-emulsifier in creams and emulsion. **REINOLDERM OLV3** has also interesting thickening properties for surfactant-based systems. This product is recommended for:

- toiletries products for sensitive skin.
- Baby care products.
- Protective shampoo and conditioners.
- Intimate cleansers and liquid soaps.
- No foaming detergents.
- Mild bath and shower products.
- Make up removers.
- Moisturizing O/W emulsions.

The following formulations are here indicated in order to give general directions for the employment of **REINOLDERM OLV3**. Although they have been realised according to the best information we owe, this does not exonerate the user from verifying their validity, REINOL is at the user's disposal in order to contribute to the development of new formulations, and to give the needful information for a correct use of our products.

#### **Intimate cleanser**

<b>REINOLDERM OLV4</b>	12.00
Magnesium Laureth Sulphate (30%)	10.00
<b>REINOLDERM OLV3</b>	2.00
Aqua	up to 100
Glycerin	2.00
Malva Sylvstris (Distilled water)	20.00
pH modifier, q.s. to pH=4.5	
Perfume and preservatives	q.s.

#### **Shampoo frequent use**

Sodium Laureth Sulphate (27%)	35.00
<b>REINOL® 30</b>	20.00
<b>REINOL® 40</b>	7.00

Cocamidopropyl Betaine	2.50
Aqua	up to 100
Panthenol	2.00
Perfume and preservative	q.s.

**Foam bath**

Sodium Laureth Sulphate (27%)	35.00
<b>REINOLDERM OLV4</b>	25.00
<b>REINOLDERM OLV3</b>	2.00
Aqua	up to 100
Aesculus Hippocastanum Extract	1.00
NaCl	q.s.
Perfume and preservative	q.s.

#### **Oil-non-oil cleanser**

<b>REINOLDERM OLV3</b>	20.00
<b>REINOLDERM OLV4</b>	10.00
Polyquaternium-7	1.50
Diglycerin	5.00
Aqua	up to 100
Perfume and preservative	q.s.

#### **Make up remover**

<b>REINOLDERM OLV3</b>	15.00
Diglycerin	10.00
Anthemys Nobilis Extract	2.50
Aqua	up to 100
Perfume and preservative	q.s.

<b>REINOLDERM OLV4</b>	Sodium Olive Oil PEG-7 Carboxylate.
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For Additional Informations Please Contact

#### **REINOL** s.p.a.

Strada del Francese, 21  
10071 Borgaro Torinese  
Torino — ITALY

Tel. +39 (011) 470.15.10  
+39 (011) 470.15.11  
+39 (011) 470.45.41  
Fax +39 (011) 470.39.10  
Email info@reinol.it