



Kalichem  
Italia s.r.l.

# OLIVOIL GLUTAMATE EMULSIFIER

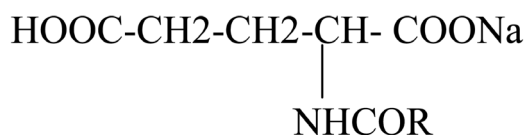
*Natural PEG-free and hydrolyzed protein free  
Soft and Emollient Emulsifier of vegetal origin "Ecocert"*

**OLIVOIL GLUTAMATE EMULSIFIER®** is a non-ethoxylated, vegetal derived surfactant that combines the unique fatty acid profile of olive oil with the characteristic affinity of glutamic acid toward the skin surface. The result is a new emulsifier structure with high skin compatibility and maximum biodegradability. OLIVOIL GLUTAMATE EMULSIFIER® is based on Olivoyl Glutamate, a lipo-amino-acid with a fatty amide structure, showing high inter-facial activity. It is obtained by condensation of one amino group of glutamic acid and the carboxyl group of fatty acids of olive oil:

Chemical structure of Potassium Olivoyl Glutamate (OLIVOIL GLUTAMATE EMULSIFIER)

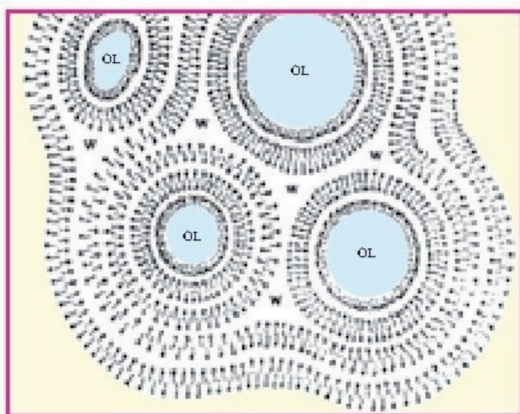
The hydrophilic part made up of glutamic acid

HOO-CR = The lipophilic part of olive oil



## EMULSION TYPE

In order to achieve an amphiphilic system suitable for the stabilization of O/W emulsions, this structure (called Olivoil Glutamate) is combined in a balanced way with olive oil wax (mainly composed of Cetearyl Alcohol and Glyceryl Stearate). The result is an 'emulsifier base' with an outstanding emulsifying power. This is due to its ability to mimic the ordered aggregation of water and oil in natural systems: the liquid crystal structure.



In this manner, extremely fine and very stable emulsions are obtained, with the oil droplets surrounded by bi-layers of amphiphilic molecules which strengthen the interface stability, thus avoiding the coalescence. With **OLIVOIL GLUTAMATE EMULSIFIER®**, the concepts of skin-compatible liquid crystals and skin water-management becomes a reality. The hydro-lipidic balance of the skin, which is significantly lowered by traditional emulsifiers, is only barely altered. Furthermore, the lipidic moiety of the Olivoil Glutamate Emulsifier, thanks to the relevance of saturated and unsaturated fatty acids from olive oil, can provide a significant contribution to the anti-aging effect of the whole cosmetic product.

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## KEY CHARACTERISTICS

The product comes in solid waxy blocks without a characteristic odor and ivory white color. It is suggested the addition to the oil phase of cosmetic emulsions. Having a melting point within the range 65-70 °C, it may require heating up to 71 °C for addition. The operating parameters in the emulsification phase (time, speed, cycles of stirring and homogenization) have to be defined by taking into account the specific equipment characteristics.

## COSMETIC APPLICATIONS

**OLIVOIL GLUTAMATE EMULSIFIER®** can be used in a wide range of skin-care products, it should be underlined that it represents the best choice to formulate performing cosmetic emulsions, suitable for sensitive and delicate skin (dry skin, baby skin, ethnic products). Furthermore, it is useful to build-up anisotropic lamellar phases O/W from vegetable oils, by means of totally natural ingredients. Emulsions with very pleasant white appearance and characteristic soft-touch, stable at high temperature, without addition of co-emulsifiers, can be obtained. Their outstanding skin-feel is a very important 'marketing plus': immediate perceptions of skin smoothness, softness and silkiness are easily noticeable during and after application.

## PRODUCT SPECIFICATION

INCI NAME and COMPOSITION:	CAS No	EINECS/ELINCS	Range %
Sodium Olivoyl Glutamate	-	Biopolymer	25-50%
Cetearyl Alcohol	67762-27-0	267-008-6	25-50%
Glyceryl Stearate	31566-31-1	250-705-4	25-50%

PHYSICO – CHEMICAL ANALYSIS	METHOD	LIMITS
APPEARANCE:	Visual	SOLID
COLOUR:	Visual	IVORY WHITE
ODOUR:	Sensorial	SLIGHT NEUTRAL
MELTING POINT (°C)	Internal	65° - 70° C.
pH o fan acqueouse solution 10%	Internal	6.5 – 7.5
NITROGEN:	Kieldhal	0,5 – 1%
DRY RESIDUE	Internal	95 – 98%

MICROBIOLOGICAL SPECIFICATION:	Internal	< 100 UFC/g
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SHELF LIFE: 12 months in the original containers

### APPLICATIONS %

General cases : between 1 and 5% in skin care products (O/W emulsions).

Amounts 5% are suggested to reach thick emulsions; while 1 to 2% is usually necessary to obtain fluid emulsions (with water phase gelification). pH range: the optimum stability is between 5 and 7 values.

*OLIVOIL GLUTAMATE EMULSIFIER* has the ECOCERT certification.



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