



Olivatis® 21

INCI NAME	Olive Oil PEG-6 Esters, Olive Oil Polyglyceryl-6 Esters
APPLICATIONS	Skin care - Sun care - Decorative - Hair care

Nowadays, cold-process emulsifiers are more and more popular as allow costs-reductions and a greener production method.

Medolla Speciality Chemicals has developed **Olivatis® 21**, an excellent non-ionic, palm-free, liquid, cold-process, oil-in-water (O/W) emulsifier.

Olivatis® 21 is a very high-performing emulsifier providing an excellent touch and improving smoothness, emolliency and skin moisture degree.

Olivatis® 21 is a versatile emulsifier, ideally suitable for sprayable and pourable lotions and creams. Designed to be mild, robust, cost effective and easy to use.

Olivatis® 21 is an outstanding emulsifying solution with excellent compatibility with both low and high polarity oils, silicone oils, electrolytes, quaternary compounds, pH and temperature.

PHYSICAL / CHEMICAL PROPERTIES	
Appearance:	oily liquid
Color:	yellow
Acid value:	5,0 max.
Saponification value:	110 - 130
Water:	1,0% max.
HLB:	10 - 11

With **Olivatis® 21** it is possible to create:

- Very high-stability, ultra-fluid milk emulsions, even without the use of stabilizers such as gums.
- Self-emulsifying crystal-clear oils.
- Gel-creams with the concentration of the emulsifier as low as 1%.

Due to its non-nionic nature, **Olivatis® 21** is fully compatible with cationics.



NATURAL ORIGIN INDEX

Olivatis® 21 is a mixture of the products resulting from the trans-esterification reaction of Peg-6 and Polyglyceryne -6 with Olive Oil and the natural origin index I (no) of each component, according to the ISO 16128 standard, is as follows:

- Olive Oil Peg-6 Esters: 0,52
- Olive Oil Polyglyceryl-6 Esters 1,00

RHEOLOGICAL BEHAVIOR AND USE TIPS

Olivatis® 21 can be used at 1-6% concentrations depending on the amount of oils. Emulsions with **Olivatis® 21** have an excellent skin feel, are not oily and leave a fresh sensation on skin.

Olivatis® 21 does not have thickening properties and, therefore, it is recommended the use of our **Carbomed 940 EZ** (0,25-0,50%) or of other hydrophilic thickeners, to reach the requested viscosity.

The emulsifying power of **Olivatis® 21** is not affected by glycols, glycerin, alcohol, mineral & organic sunscreens, pigments, whitening agents, alpha-hydroxyl acids and quaternary compounds.

Olivatis® 21 works with oils of different nature and polarity and, therefore, is perfectly compatible with all popular oils used in the personal care and cosmetics field.

CREATION OF ULTRA-FLUID MILKS

Olivatis® 21 allows the creation of ultra-fluid milks with a very simple, cost-effective method. It is sufficient to mix **Olivatis® 21** with oil and to add water under stirring.

GUIDE-LINE FORMULATION ULTRA-FLUID MILKS

INGREDIENTS	WT. %
Olivatis® 21	5,0
Decyl Oleate	7,5
Caprylic Capric Triglyceride	7,5
Preservative	q.s.
Parfum	q.s.

Results: white milk, stable at 4500 rpm 20'.

For this application, **Olivatis® 21** should be mixed at a 1:3 ratio with oil but this ratio may be modified depending on the oils used.



CREATION OF CREAMS

Olivatis® 21 acts as a cold-process O/W emulsifier for smooth gel-creams, with an extremely light skin feel and excellent stability. In this application, **Olivatis® 21** can emulsify natural oils, esters, mineral oil, silicones and their combinations in a ratio as low as 1 part of emulsifier with 5 parts of oil.

To control the viscosity of emulsions, **Carbomed 940 EZ** can be used up to 0,5% in the water phase. **Olivatis® 21** should be added to the other fats in the oil phase.

Manufacturing process of a cream gel is very simple:

- A. Disperse **Carbomed 940 EZ** in the water phase
- B. Add all other water-soluble ingredients in the water phase.
- C. Mix **Olivatis® 21** and all other ingredients of the oil phase together.
- D. Add the oil phase to the water phase under stirring.
- E. Emulsify the mixture with a homogenizer (no shear sensitivity).
- F. Add fragrance and preservative.
- G. Neutralize **Carbomed 940 EZ** with a base (e.g. NaOH 10% solution) to the target Ph (>5.2)

CREATION OF WATER-DISPERSIBLE CRYSTAL-CLEAR OILS

Despite its high HLB, **Olivatis® 21** is amazingly easily soluble in a wide range of oils. This property allows creating water-dispersible oils without any trouble. Infact, it is sufficient to mix **Olivatis® 21** with the oil to obtain crystal-clear oils, self-emulsifiable in water. So, it is possible to create hair oils, massage oils and make-up remedies, where it is possible to remove excess of oil by simply rinsing with water, keeping all the beneficial properties of the oil on skin, without leaving the skin oily.

Furthermore, these products can be labeled as “preservative free”.

For this application, the recommended concentrations range from 3 % to 10%.

To make a perfect clear formulation some oils combination requires the addition of a very little amount of water (0,1-0,5%). In this case we suggest to add a 1:1 mixture of glycerin and water to avoid the use of any preservative.

CRYSTAL-CLEAR MAKE-UP REMOVER OIL

INGREDIENTS	WT. %
Olivatis® 21	5,0
Hydrogenated Polyisobutene	42,1
Medster 1215B	42,1
Almond oil	10,0
Tocopherol	0,6
Water / glycerin	0,2
Parfum	q.s.



OLIVATIS 21 AT A GLANCE

Easy to use

Cost-effective

Oil-soluble

Palm- free

Natural-derived raw material (ISO 16128)

Low inherent odor

Versatility and high emulsifying power.

Notable stability at high and low temperature

Light and silky feel

Long-lasting emollient / moisturizing effect

Excellent spreadability

Broad compatibility

Rev. 00 date: 23.06.2022

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