

Olivatis®

The ultimate emulsifiers



Globally compliant,
sustainable, high-performing ingredients
based on Olive Oil

Olive Oil

A superlative ingredient for personal care

- Italian product par excellence, used for thousands of years.
- Sustainable.
- Secure ingredient of large volumes.
- Up-cycled production of Olive Fatty Acids and Glycerine, as well.
- Production of cold-process liquid emulsifiers.
- Amazing natural substance with the lipid profile similar to human skin's.

Olivatis® at a glance

Olivatis® 12C

Olive Oil Polyglyceryl-6 Esters & Polyglyceryl-6 Pentaoleate
W/O emulsifier



Olivatis® 15C

Olive Oil PEG-8 Esters
Water-soluble Olive Oil, emollient, mild surfactant



Olivatis® 18

Olive Oil Polyglyceryl-6 Esters, Sodium Stearoyl Lactylate, Cetearyl Alcohol
O/W emulsifier



Olivatis® at a glance

Olivatis® 20

Olive Oil Polyglyceryl-6 Esters, Lauryl Glucoside
O/W emulsifier



Olivatis® 21

Olive Oil PEG-6 Esters, Olive Oil Polyglyceryl-6 Esters
O/W emulsifier



Olivatis® for sustainable living

Use of renewable, sustainable raw material, first of all Olive Oil.

Up-cycling of Olive pomace.

Environmentally friendly plantation.

Environmentally friendly production processes:

- Minimized consumptions of gas, electricity and water.
- No wastes, emissions and use of toxic auxiliaries,
- Strict production procedures and control. Minimization of accident risks.

Olivatis® natural status

Cosmos & ISO 16128 standards

PRODUCT	COSMOS	ISO 16128
Olivatis® 12C	100% natural certified	Natural Origin Index 1
Olivatis® 15C	Non-natural, non-certified	Natural Origin Index 0
Olivatis® 18	100% natural certified	Natural Origin Index 1
Olivatis® 20	100% natural certified	Natural Origin Index 1
Olivatis® 21	Non-natural, non-certified	Natural Origin Index 0,61-0,71

Olivatis® 12C

Olive Oil Polyglyceryl-6 Esters & Polyglyceryl-6 Pentaoleate

**Cold and hot-process, PEG-free, Palm-free, natural,
W/O emulsifier.**

- Liquid
- High water resistance
- Very light emulsions with silky skin feel despite its water resistance.
- Up to 80% w/w water phase
- No white stains, no impact on inherent color and scent
- Non-phototoxic
- Cold & hot processing
- Compatible with: glycols, glycerin, alcohol, mineral & organic sunscreens, pigments, whitening agents, alpha hydroxy acids.



Olivatis® 12C

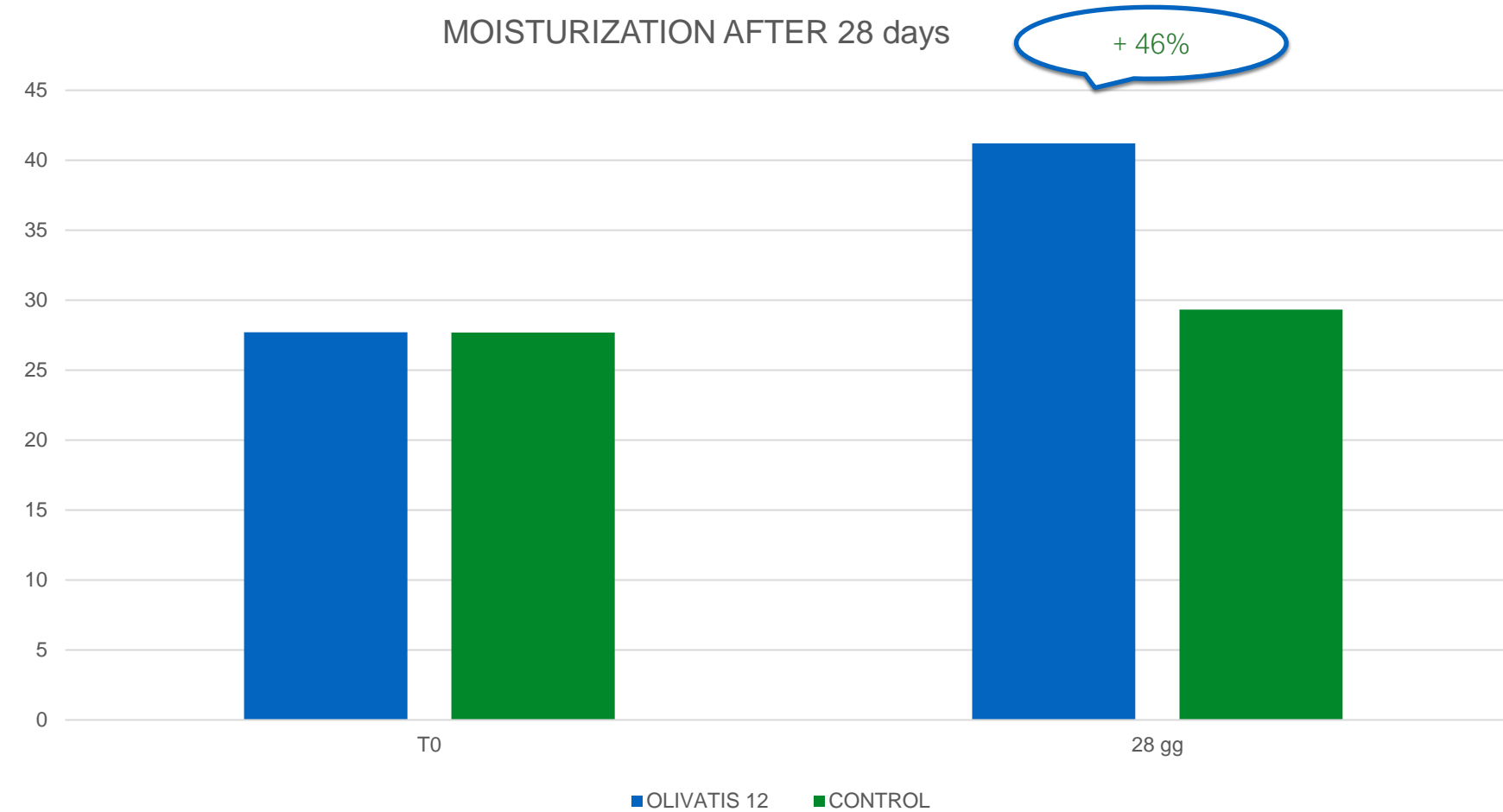
Applications

- Sunscreens
- Baby cream
- Night creams
- Possibility of incorporating high amounts of glycols, glycerin & electrolytes
- Ideal product for W/O emulsions with a high content of powders (TiO₂, ZnO).

Olivatis® 12C

Moisturizing Properties

Simple Basic cream with 10% Olivatis® 12C + 10% Caprylic Capric Triglyceride



Olivatis® 12C

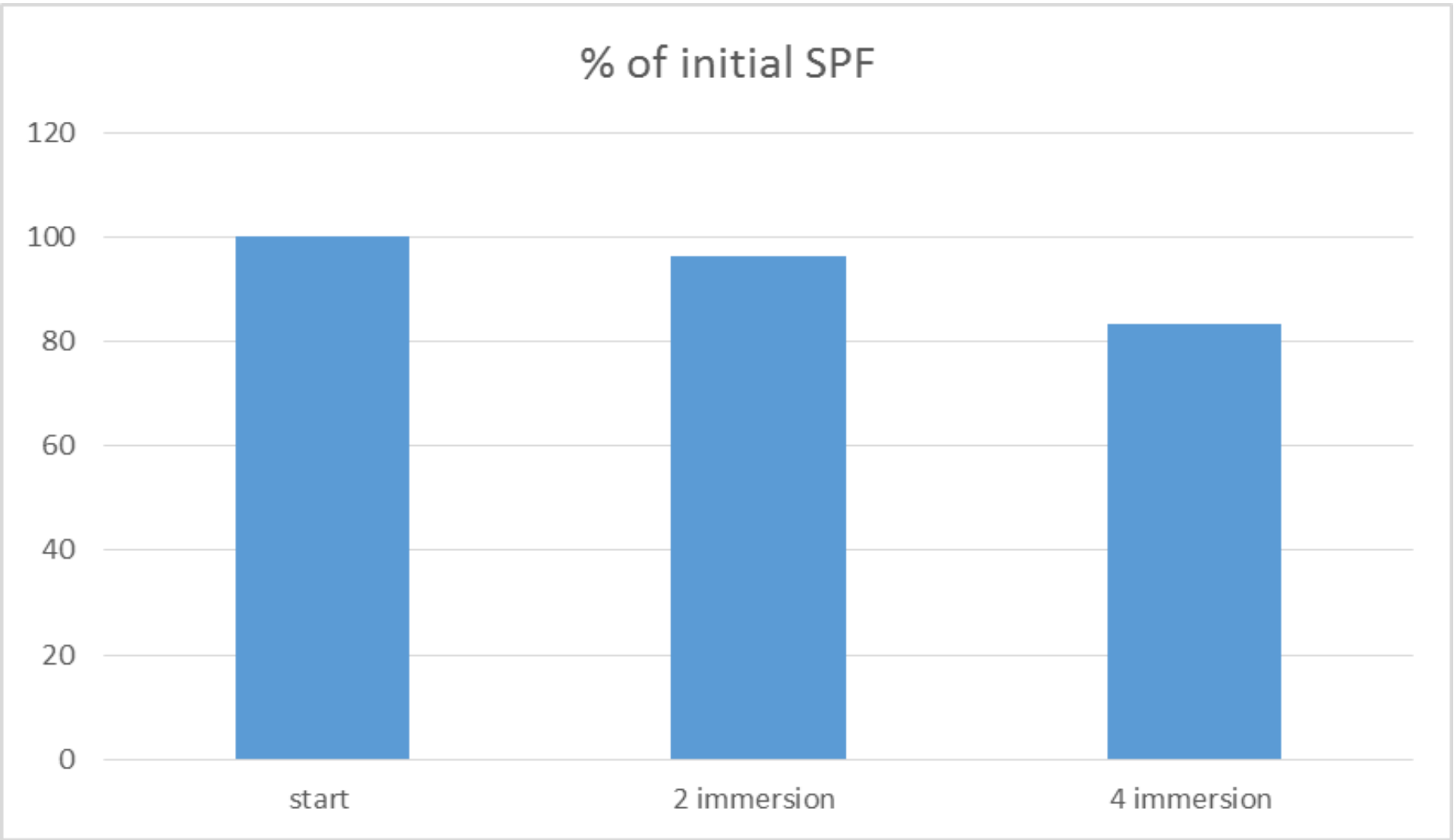
SPF Trend

5% Olivatis® 12C

SPF trend after two and four immersions

Colipa test method

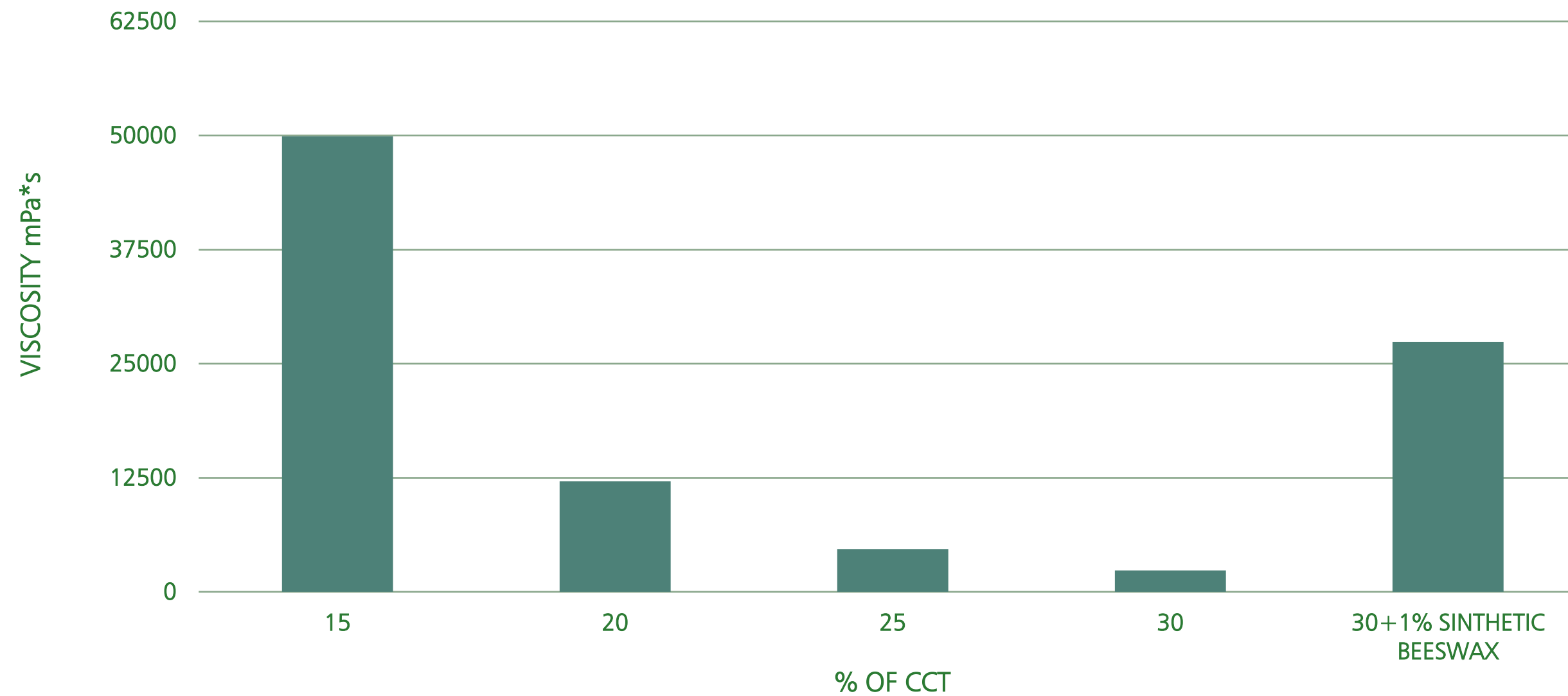
N° OF IMMERSIONS	% OF INITIAL SPF
2	96,17%
4	83,25%



Olivatis® 12C

Viscosity of W/O emulsions

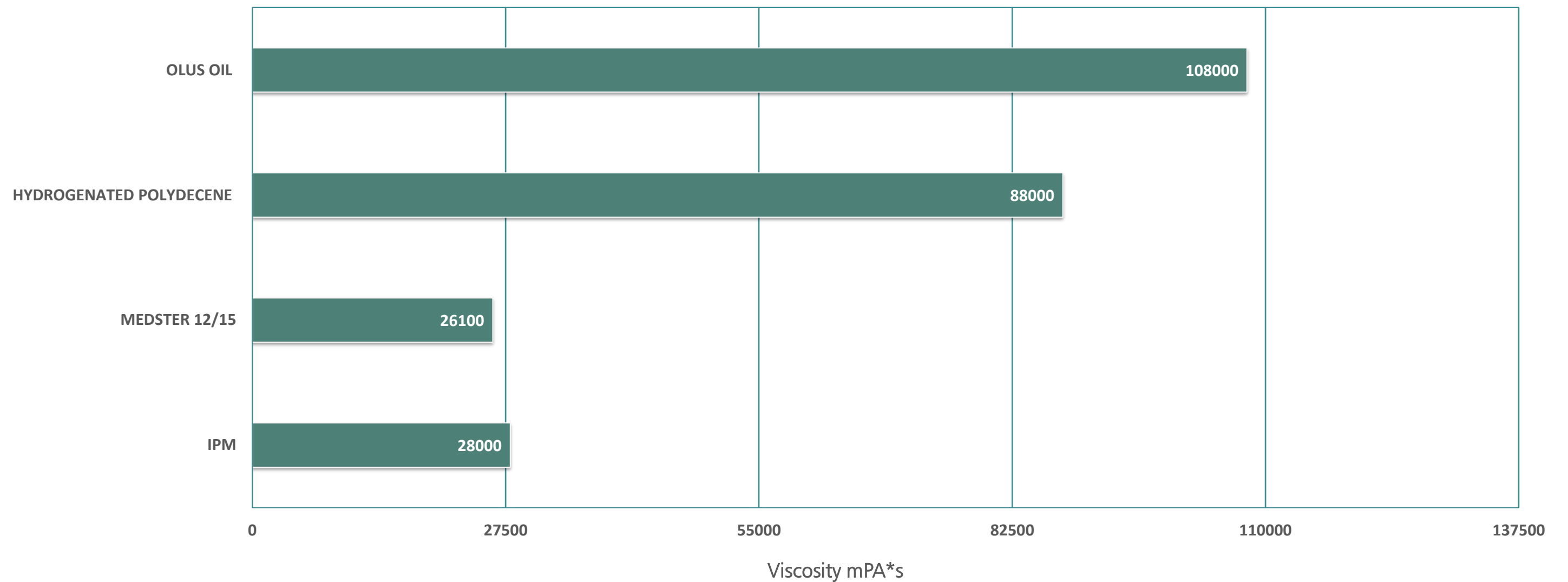
5% Olivatis® 12C and growing % of Caprylic Capric Triglyceride



Olivatis® 12C

Viscosities of emulsions with different Oils

(6% Olivatis® 12C – 20% oil)



Olivatis® 12C

Stabilization of emulsions

- Electrolytes (MgSO₄, NaCl...)
- Glycols
- Glycerin
- Stearates (example Magnesium Stearate)

Olivatis® 12C

Instructions for use

Mix Olivatis® 12C with oils

- Prepare water phase with all water soluble ingredients
- Add water phase to oil phase slowly under high shear

For hot process

1. Oil and water phase at the same temperature
2. Do not add cold water if waxes are present

Hints for processing

- Use high-shear mixer
- Buffer at desired pH water before addition

Olivatis® 12C

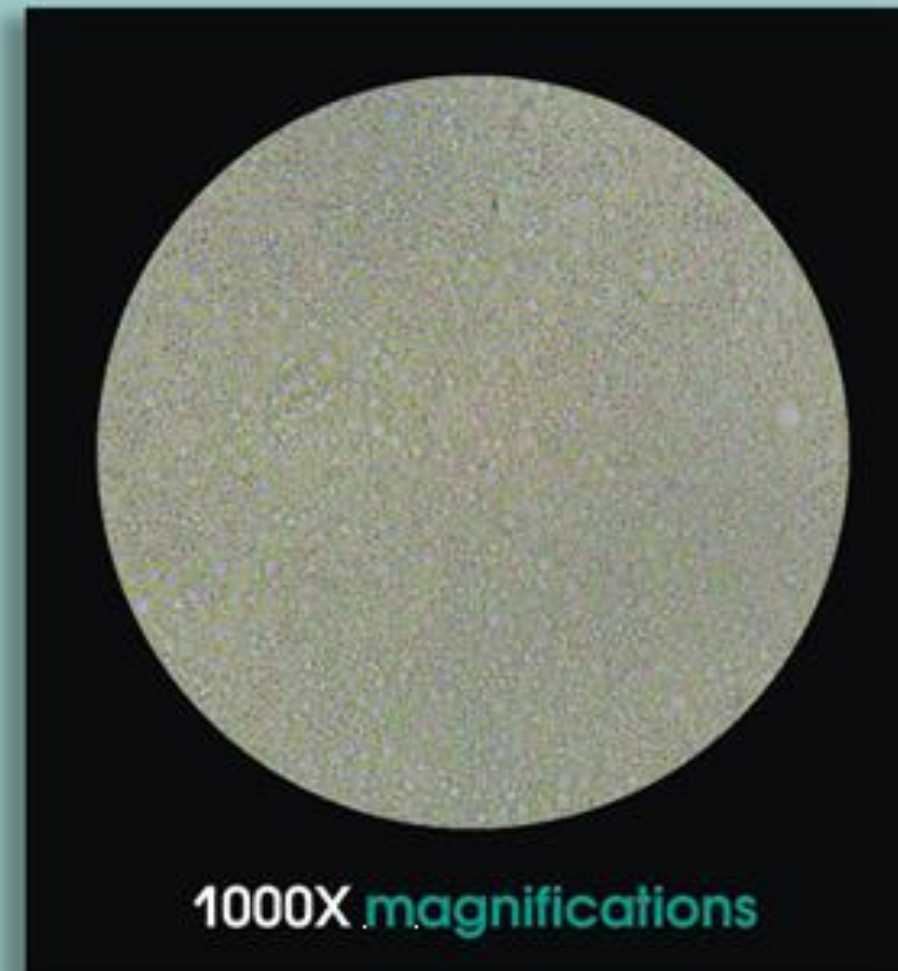
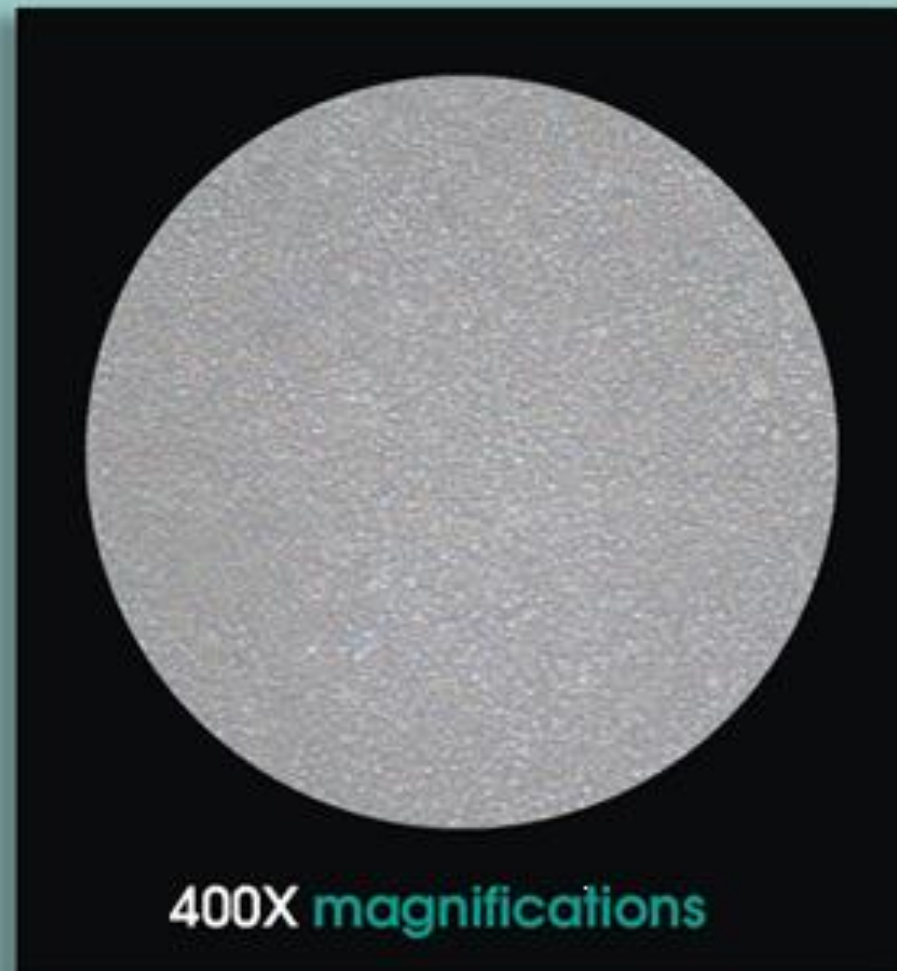
Basic night cream with Olivatis® 12C - #302

INGREDIENTS		%
Phase A		
Olivatis® 12C		5,00
Caprylic/capric tryglyceride		6,30
Squalane		3,50
Tocopheryl acetate		0,50
Magnesium stearate		1,00
Tocopheryl acetate		0,50
Phase B		
Sodium Chloride		2,50
Glycerin		3,00
Preservative		q.s.
Water to 100%		q.s.

Stable for 90 days at 45°C

Olivatis® 12C

Formulations # 302



Olivatis® 12C

Sun protective Zinc Oxide O/W cream with Olivatis® 12C - #287

INGREDIENTS	%
Phase A	
Olivatis® 12C	4,10
Caprylic Capric Triglyceride	19,00
Ethylhexyl Stearate	3,25
Zinc Oxide	20,00
Cetostearyl Alcohol	2,00
Tocopheryl Acetate	1,00
Phase B	
Glycerin	5,00
Magnesium Sulfate	1,50
Preservative	q.s.
Water (demineralized)	to 100,00

Stable at 45°C for 3 months – Calculated SPF 15

Olivatis® 18

Olive Oil Polyglyceyl-6 esters, Sodium Stearoyl Lactylate,
Cetearyl Alcohol

- PEG-free, natural, O/W emulsifier.
- Melting range 50°C – 60°C.
- High performance emulsifier with thickening properties
- Compatible with high & low polarity oils, glycols, glycerin, alcohols, mineral & organic sunscreens, pigments, whitening agents, alpha hydroxy acids and natural conditioners (e.g. Betaine)
- Non-tested on animals.
- Flexible use and cost effective: use level 2-6%
- pH range 4,5 - 9,0



Olivatis® 18

Applications

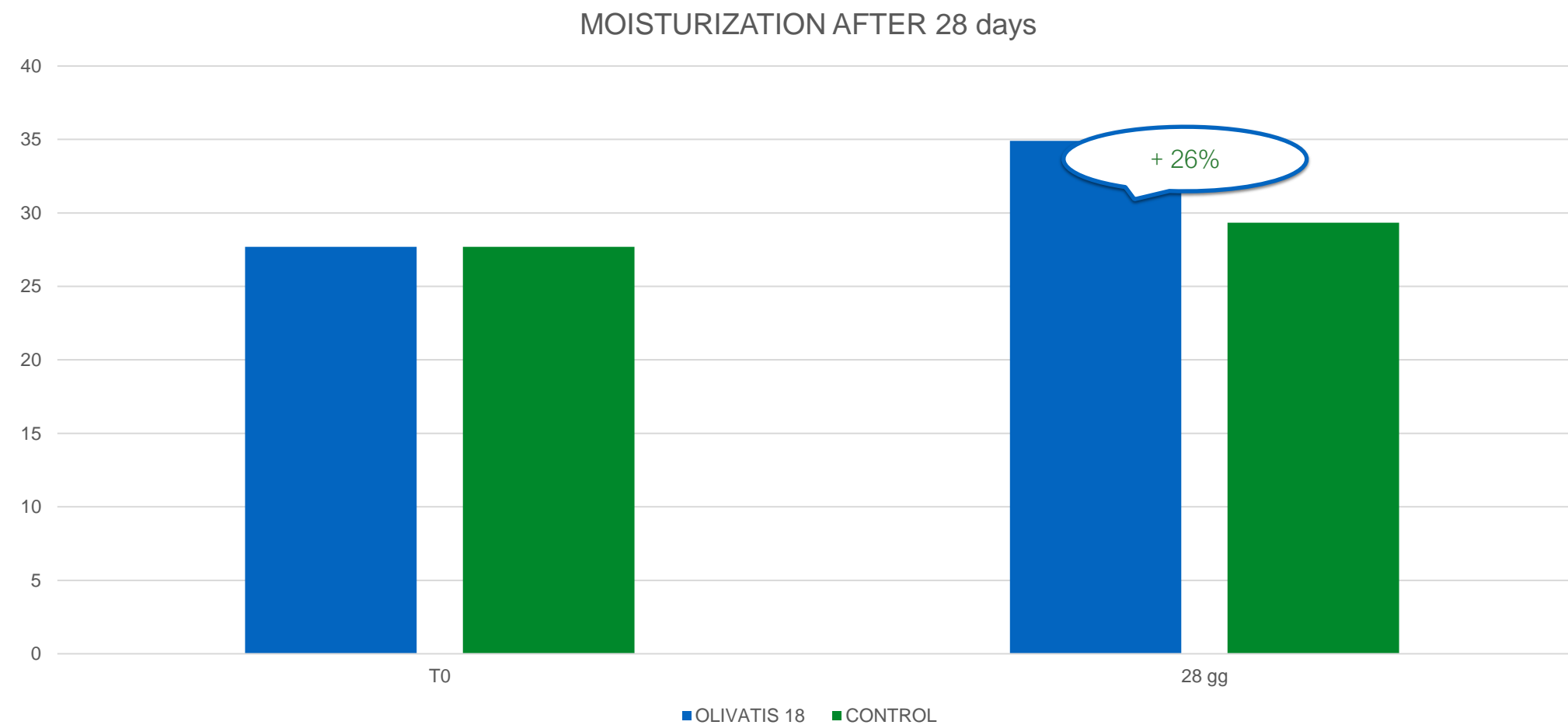
- Sun care
- Skin care
- Color cosmetics

Olivatis® 18 is ideally suitable for formulations for dry and sensitive skin when high moisture retention and low skin irritation potential are essential.

Olivatis® 18

Moisturizing properties

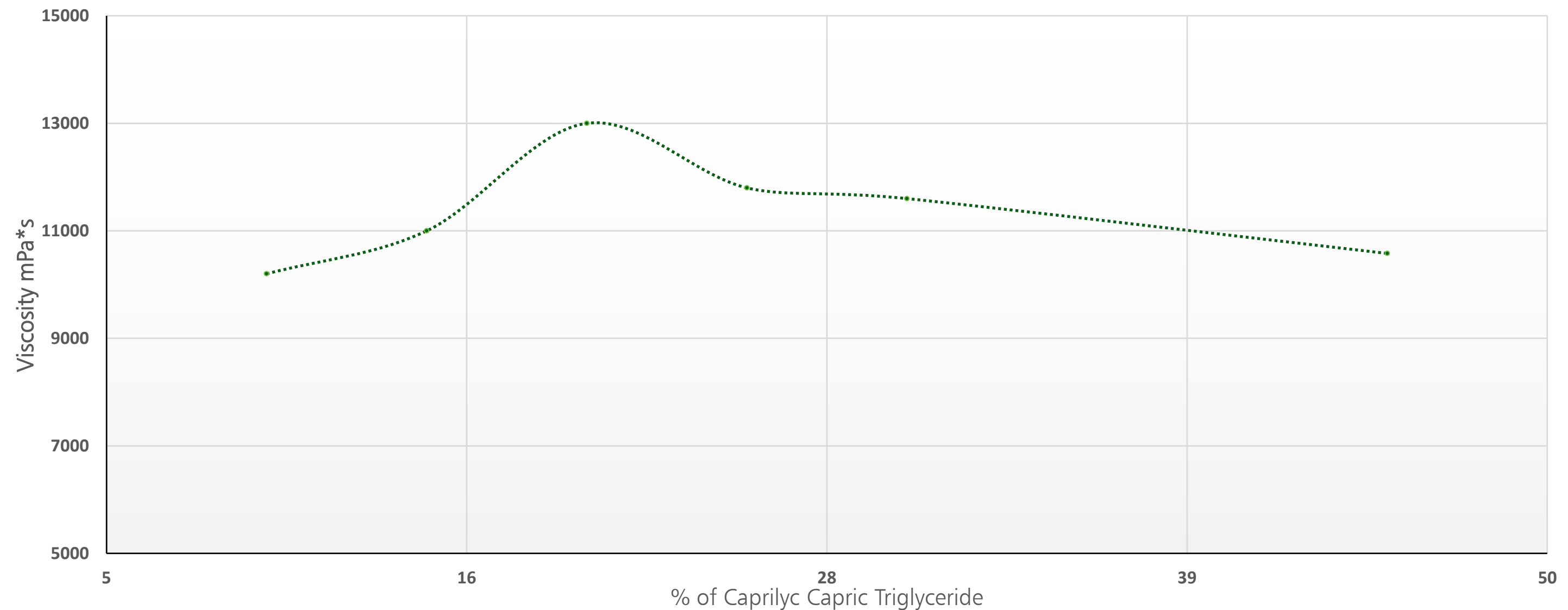
Simple basic cream - 5% Olivatis® 18 + 5% Caprylic Capric Triglyceride



Olivatis® 18

Viscosity of emulsions

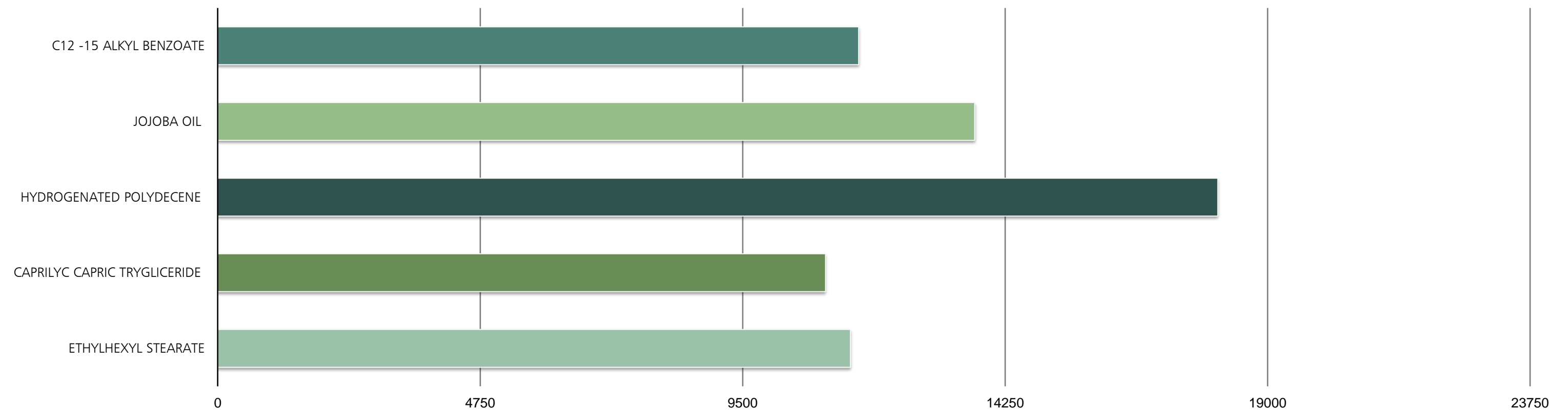
5% Olivatis® 18 and different % of Caprylic Capric Triglyceride



Olivatis® 18

Thickening properties with widely-used oils

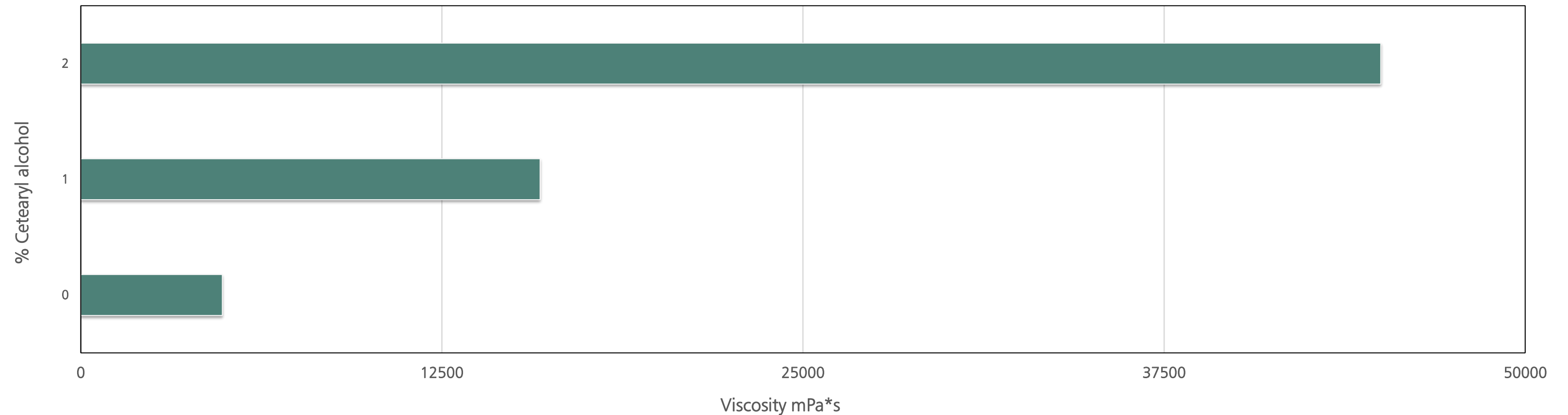
Viscosity of emulsions with 5% Olivatis® 18 and different oils at 15% fixed concentration



Olivatis® 18

Thickening effect of Cetearyl Alcohol

Base cream: 5% Olivatis® 18 – 20% Caprylic Capric Triglyceride



As low as 1% can solve any consistency issue

Olivatis® 18

Processing methods

1. **Traditional method**, consisting in preparing the oily phase with Olivatis® 18 and the aqueous phase separately, in heating them to the same temperature and eventually in mixing and homogenizing them together. This method involves two separate vessels and a rather long preparation time.
2. **One-pot method**, requiring one heating vessel only where the water phase is loaded and Olivatis® 18 dispersed. Once heated the water phase, oils are then added. This is a very effective method as, in some applications, allows a reduction of labor, equipment and energy.

Olivatis® 18

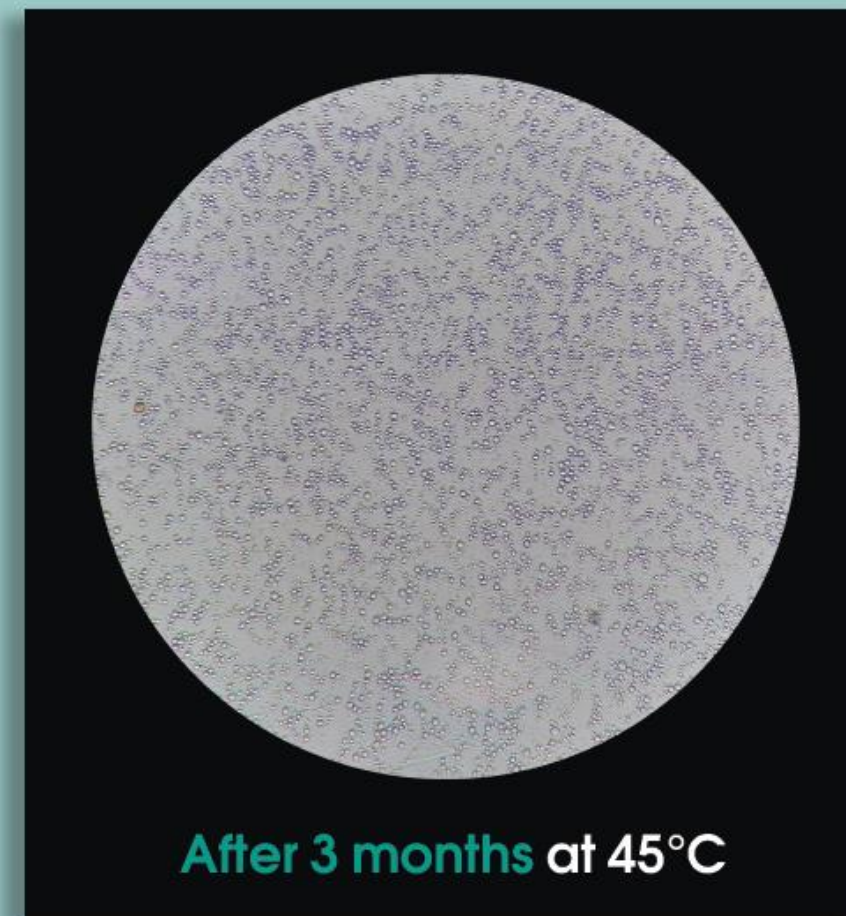
Day cream with Olivatis® 18 - #309

INGREDIENTS	%
Phase A	
Olivatis® 18	5,00
Isononyl Isononanoate	5,00
Cetearyl Ethylhexanoate	5,00
Caprylic Capric Triglyceride	5,00
Jojoba Oil	1,00
Tocopheryl acetate	0,30
Cetearyl Alcohol	0,80
Phase B	
Xanthan gum	0,40
Glycerin	3,00
Preservative	q.s
Water Demineralized	q.s

Stable for 90 days at 45°C

Olivatis® 18

Formulation #309 stability - Microscope 400X



Olivatis® 18

Day cream with Olivatis® 18 – One-Pot method - #317

INGREDIENTS		%
Phase A		
	Olivatis® 18	4,90
	Cetearyl Alcohol	1,00
	Cetyl Palmitate	1,00
	Glycerin	3,00
	Xanthan Gum	0,39
	Preservative	q.s
	Water demineralized	To 100%
Phase B		
	Octyl stearate	q.s
	Isohexadecane	q.s

Stable at 45°C for 90 days

Olivatis® 18



One-pot process
formulation #317



One-pot process formulation #317
at 400X magnifications

Olivatis® 18

Refreshing after shave gel #247

INGREDIENT	% W/W
Caprylic Capric Triglyceride	2,00
Squalane	2,50
Isopropyl palmitate	2,50
Olivatis® 18	3,00
Allantoin	0,10
Sodium glycyrrhizinate	0,10
Medxtract Witch Hazel 1:2	0,50
Alcohol denat. 96% vol	16,50 (20% vol)
Citric acid	q.s
Water	q.s
Preservative	q.s
Parfum	q.s

Stable for at least 2 years at room temperature

Olivatis® 20

Olive Oil Polyglyceryl-6 Esters, Lauryl Glucoside

- Universal, cold-process, O/W emulsifier
- PEG-free
- Cosmos approved
- Concentrations of use 3-6%
- pH range 4,5-8
- Low foaming



Olivatis® 20

Applications

- **Wet wipes**
 - **Sun Care**
 - **Skin Care**
-
- Suitable for formulations where heating is unwanted, such as low-cost formulations and in cosmetics with heat sensitive oils.
 - Ideal for creating stable emulsions ranging from sprayable to pourable lotions.

Olivatis® 20

Applicative guidelines

Olivatis® 20 must be pre-dispersed in water before the addition of fats and the amount of water required is normally 5 times the amount of Olivatis® 20. For example, 2,5% of Olivatis® 20 must be dispersed in 12,5 % of water. The dispersion can be slightly rheopectic (viscosity increases with increased stirring speed) and therefore speed must be reduced in case of excessive thickening.

Once Olivatis® 20 is dispersed, fats and oils are added under stirring and a concentrated emulsion is made. This is then further diluted with the remaining water phase.

A high-shear homogenizer is strongly recommended.

Olivatis® 20

Make-up remover lotion for wet-wipes-#248

INGREDIENTS	%
Olivatis® 20	2,50
Medxtract Chamomile Distilled	5,00
Medxtract Chamomile 1:2	0,20
Medxtract Green Tea 1:2	0,20
Xanthan Gum	0,20
Isononyl Isononanoate	2,50
Isohexadecane	2,50
Preservative	q.S
Parfum	q.S
Water	to 100.00

White milk stable at 3000 rpm for 15'

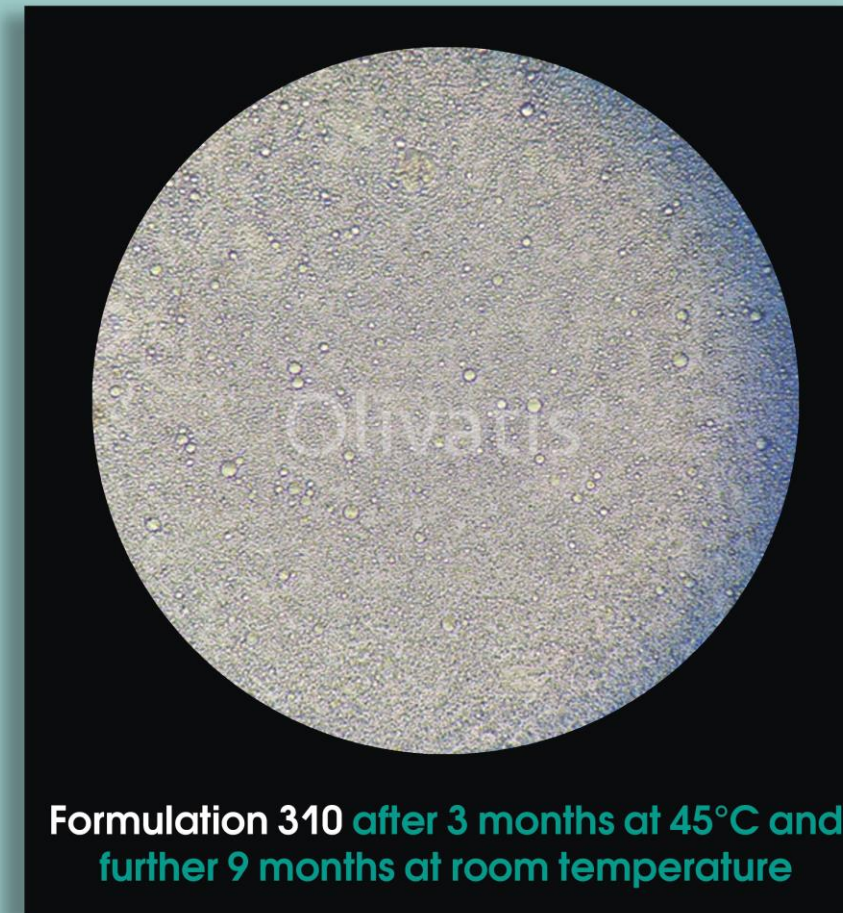
Olivatis® 20

Cleansing Milk with Olivatis® 20 - #310

INGREDIENTS	%
Phase A	
Olivatis® 20	4,00
Water	20,00
Phase B	
Cetearyl Ethylhexanoate	10,00
Squalane	2,00
Tocopheryl Acetate	0,30
Phase C	
Xanthan Gum	0,40
Glycerin	3,00
Magnesium Aluminum Silicate	0,30
Preservative	q.s.
Water	to 100,00

White milk stable 3 months at 45°C

Olivatis® 20



Olivatis® 21

Olive Oil Peg-6 Esters, Olive Oil Polyglyceryl-6 Esters

- Liquid
- Universal emulsifier
- Natural derived raw material under ISO 16128
- Cost effective
- Concentration of use 1-6%
- pH range 4,5-8
- Oil soluble
- HLB 10-11
- Compatible with: glycols, glycerin, alcohol, mineral & organic sunscreens, pigments, whitening agents, alpha hydroxy acids and quaternary compounds

Olivatis® 21

Natural derived index (ISO 16128)

INGREDIENT	Index of natural origin
Olive Oil PEG-6 Esters	0,52
Olive Oil Polyglyceryl-6 Esters	1,00



Olivatis® 21

Cold process advantages

Reduced manufacturing time

Reduced energy cost

No effect on heat sensitive ingredients

Olivatis® 21

Detoxifying MILK #260

INGREDIENT	%
Olivatis® 21	5,00
Caprylic Capric Triglyceride	7,50
Decyl Oleate	7,50
Medxtract Witch Hazel Distilled	5,00
Panthenol	0,25
Glycerin	1,00
Preservative	q.s
Parfum	q.s
Lactic acid	to pH 5,5-6,0
Water Demineralized	to 100,00

Stable 4400 rpm 20'


Olivatis® 21

As an oil soluble emulsifier

- Applied at 3 % - 10 % in oils and butters to be rinsed off immediately after application, to facilitate their rinsing, to avoid greasiness and stickiness and to provide skin and hair with a silky, smooth after feel.
- Recommended in shower oils, ethnic hair butters, make-up remover oils, hair oils and massage oils, etc.
- Compatible with all natural oils and butters, with esters such as IPP and IPM, with our dry-feel ester **Medster 1215B** and with all lipophilic **Medxtracts**.
- For a perfect clarity, some oils mixtures may require the addition of 0,05% - 0,5% of a glycerin/water 1:1 solution.

Olivatis® 21

Clear make-up remover oil, preservative-free #261

	INGREDIENT	%
	Olivatis® 21	5.00
	Hydrogenated Polyisobutene	42.10
	Medster 1215B	42.10
	Almond Oil	10.00
	Tocopherol	0.60
	Water / Glycerin 1:1	0.2
	Parfum	q.s

Olivatis® 15C

Olive Oil PEG-8 Esters

- 100% water soluble Olive Oil.
- Ultra mild surfactant.
- Excellent dermatological profile.
- Provides moisturization to skin and hair care formulations.
- Slightly yellow, preservative free.
- Non-irritant for skin and eyes (OECD guidelines tested)



Olivatis® 15C

Trans-ester of Olive Oil with PEG-8, highly water soluble

Trans-esterification process, without direct condensation with ethylene oxide, makes vegetal oils easily soluble in water systems, maintaining the fatty acid composition and the unsaponifiable fraction of starting oil.

- Clear, light yellow, basically odourless viscous liquid.
- Excellent emollient for water-based formulations – Micellar waters
- No impact on foam and viscosity.
- It is ideally used in shampoos, body washes, facial washes, anti-aging, and pet care.
- Fully compatible with quaternary compounds .
- Concentrations of use 1-3 %.

Olivatis® 15C

In modern bath products

No impact on viscosity

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

Olivatis® 15C

In modern bath products

No impact on foam: example bubble bath

Without Olivatis® 15C



With Olivatis® 15C - 3%



Olivatis® 15C

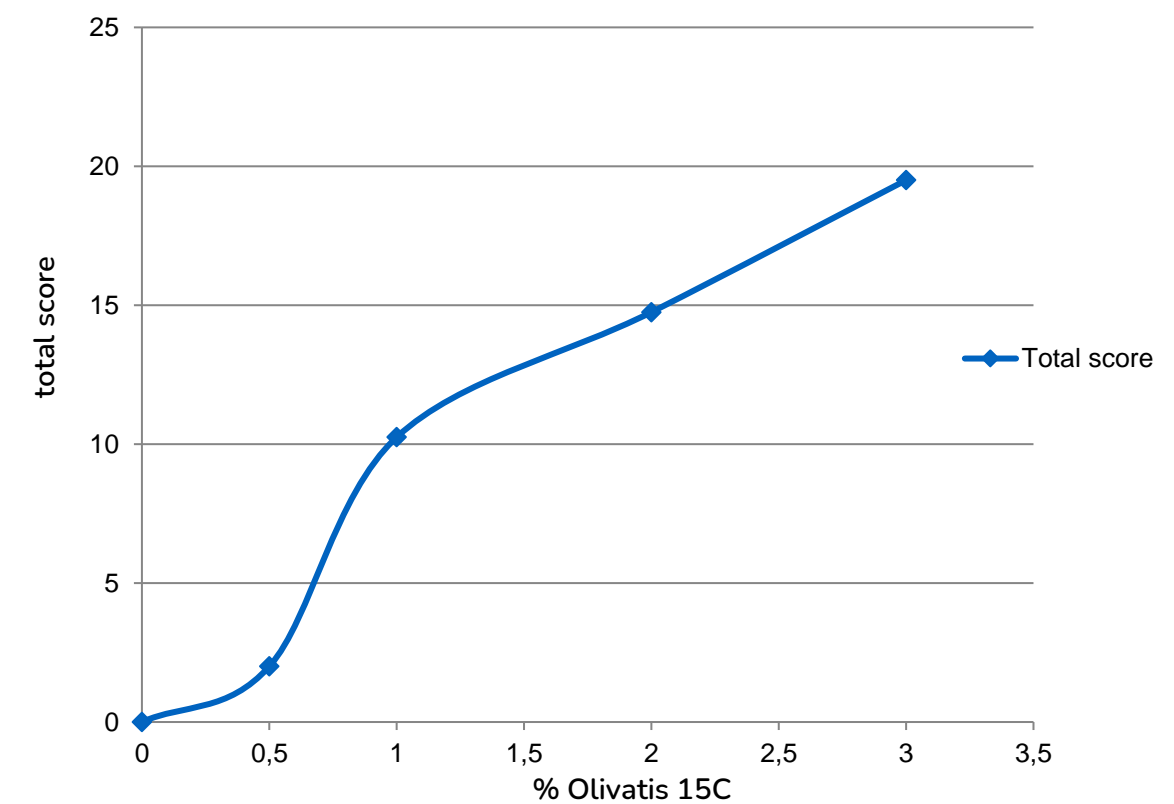
In soap bars

Panel of 10 volunteers and evaluated in blind the after-feel of the different soap bars.

Scores given by volunteers ranged from 0 to 20 where:

0 – Lowest: Dry/tight sensation, unpleasant feel.
20– Highest: Moist/supple sensation, very pleasant feel.

Total score vs % of Olivatis 15C



Olivatis® 15C

Ultra-delicate sulfate-free no-tears baby shampoo - #256

INGREDIENTS	%
Sodium Dilaureth-7 Citrate 24%	15,00
Cocamidopropyl Betaine 30%	8,00
Lauryl Glucoside 50%	5,00
Glymed 7200	2,00
Olivatis® 15C	2,00
Sodium Hydroxide	to pH 6,0
Preservative	q.s.
Water	to 100.00

Clear viscous shampoo - Viscosity 1800 mPa*s 20°C spindle S4 30 rpm

Olivatis® 15C

Conditioning micellar water #315

INGREDIENTS	%
Olivatis® 15C	5,00
Betaine	0,20
Medxtract Cabbage Rose Distilled	20,00
Medxtract Witch Hazel Distilled	20,00
Propanediol	2,00
Parfum	q.s.
Preservative	q.s.
Water	to 100.00

Clear solution





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