

# ORGA-MINERAL SUN SPRAY SPF<sub>VIVO</sub>10 BROAD SPECTRUM



•Sprayable O/W white emulsion

•Packaging: Spray

•Montanov L allows to formulate sprayable sun care formulas with a soft and light skinfeel.

•Simulgel EG helps to stabilize UV filters and forgives soft and light skinfeel too.



EU06773C - 1305

## Formula

<b>A</b>	Caprylic / Capric Triglyceride	7,00 %
	Ethylhexyl Methoxycinnamate	8,50 %
	Butyl Methoxydibenzoylmethane	1,50 %
<b>B</b>	<b>SIMULGEL™ EG</b>	0,70 %
<b>C</b>	<b>MONTANOV™ L</b>	2,50 %
	Tetrasodium EDTA	0,05 %
	Aqua/Water	Up to 100 %
<b>D</b>	<b>SEPICIDE™ HB</b>	1,00 %
	DL Alpha Tocopherol	0,05 %
	Parfum	0,10 %

## Procedure

### (Dumek -Rotor-stator)

Heat A to 75° C then add B. Add MONTANOV L in hot water (75° C: Phase C) and continue heating until the emulsifying agent is completely dissolved. Add A + B in C, start emulsifying for few minutes with a rotor/stator turbine when all the phases are incorporated. Slowly continue to mix and eventually cool the mixture down. At 40° C, add the components of phase D.

## Characteristics

Appearance	white fluid emulsion
pH	about 7
Viscosity at 45° C	about 2,500 mPa.s BROOKFIELD LV2 sp.6
Stability	Stable at RT/40° C/ 50° C and after freeze-thaw cycles -5 / +40

## Raw materials from SEPPIC

### MONTANOV™ L

#### C14-22 Alcohols and C12-20 Alkylglucoside

Glucolipid emulsifier in harmony with nature. Montanov™ L is really useful to synthesize fluid formulas no matter the nature or the quantity of fatty phase used. It allows to stabilize emulsions, and has a strong moisturizing power since it promotes liquid crystals which prevent the skin from dehydration (efficacy proven in vivo).

### SIMULGEL™ EG

#### Sodium Acrylate/Acryloyldimethyltaurate Copolymer and Isohexadecane and Polysorbate 80

Thickening and emulsifying agent in the form of liquid, this polymer is ready for use (neither pre-dispersion nor neutralization). Softness and lightness of touch.

### SEPICIDE™ HB

#### Phenoxyethanol & Methylparaben & Ethylparaben & Propylparaben & Butylparaben

Preservative

The microscopically observation with polarized light shows off liquid crystals.	
<b>SPF</b>	<b>SPF in vitro (measured at M1): 10 ± 1</b> <b>Star category ☆☆☆</b> (57CO033 method, vitro skin <sup>®</sup> , Spectrophotometer LABSPHERE <sup>®</sup> ) <b>SPF in vivo (measured at month 1): 9 ± 1</b> (5 volunteers – report DERMSCAN 100 691)
<b>Rheological study :</b> Estimated viscosity under high shear rate (around 2000 to 5000s <sup>-1</sup> )	15 to 20 mPa.s (flow curve – cone 4cm 2° - 25° c) Thanks to that very low viscosity under high shear (according to the shear rate applied by the spray nozzle), sprayability of that formula is excellent.
<b>Sprayability</b> (57CO036)	3879 mm <sup>2</sup>

## Other raw materials...

- Fragrance: VANIPATCH NATFLOR (TECHNICO F)
- Ethyl Hexyl Methoxycinnamate = octinoxate: UVINUL MC80 (BASF)
- Butyl methoxy dibenzoylmethane = avobenzene: PARSOL 1789 (GIVAUDAN ROURE)