



O/W
Emulsion



- Light yellow fluid emulsion
- Packaging: HDPE bottle
- Combining SENSANOV™ WR with MONTANOV™ 82 establishes a sunscreen with a light skin feeling, the non-greasy texture comforts the skin even in summer.
- SENSANOV™ WR provides the formula with water resistance.
- SIMULGEL™ FL ensures the fluidity of the emulsion, and stabilizes the oil phase to minimize a greasy skinfeel.



AS40002 - 0910

Formula

A	SENSANOV™ WR MONTANOV™ 82 LANOL™ 99 Ethylhexyl Methoxycinnamate Octocrylene Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine Triethanolamine	1.00% 2.00% 2.00% 6.00% 4.00% 1.00% 0.12%
B	C12-15 Alkyl Benzoate Titanium Dioxide	8.00% 4.00%
C	Aqua/Water Glycerine SOLAGUM™ AX Tetrasodium EDTA ORAMIX™ CG 110	Up to 100% 3.00% 0.30% 0.50%
D	Cyclomethicone	2.00%
E	SIMULGEL™ FL	1.50%
F	Methylene bis-Benzotriazolyl Tetramethylbutylphenol Citric Acid 25%	5.00% 0.04%
G	DL- α -Tocopheryl Acetate Phenoxyethanol & Ethylhexylglycerin Fragrance	0.50% 1.00% 0.10%

Procedure

Pilot: VMC4 VERSAMIX ROTOR STATOR – 6 kg

1. Disperse TiO₂ in C12-15 alkyl benzoate oil and mill to uniform.
2. Weigh part A and add it into main tank, heat at 85° C and then add part B with stirring. Keep the temperature 80° C.
3. Mix part C well and heat at 85° C.
4. Add part D into main tank, introduce part C to main tank, and then start rotor/stator 4000rpm and HSD 3000rpm 4'.
5. Introduce part E slowly with homogenization 4000rpm for 4'.
6. Cool down with anchor stirring at 50rpm.
7. Adjust pH of part F about 7.2 and add it in the emulsion at 40° C.
8. Add part G and adjust pH if necessary.

Characteristics

Appearance	Light yellow fluid emulsion
pH	≈ 7.7
Viscosity 1M at RT	15,200 mPa.s Brookfield LV S3 sp.6
Viscosity 1M at 45° C	13,000 mPa.s Brookfield LV S3 sp.6
Viscosity recovery at RT (after 1M at 45° C)	25,000 mPa.s Brookfield LV S3 sp.6
Stability	> M3 at RT, -18° C & 48° C > M1 after cycles -18/+48° C Stable when centrifuged at 37° C 30' at 3000 rpm

Raw materials from SEPPIC

SENSANOV™ WR

C20-22 Alkyl Phosphate and C20-22 Alcohols

Versatile phosphate anionic emulsifier effective at low dosage (1 to 3%). Provides a feeling of lightness followed by the sensation of a matt velvety veil which slowly envelops the skin. Finally SENSANOV™ emulsions leaves the skin supple with a long lasting sensation of comfort. This protective film sensation is reflected in-vivo by a water resistant effect for the development of sun care formulations.

MONTANOV™ 82

Cetearyl Alcohol & Coco-Glucoside

Glucolipid emulsifier derived from vegetable origin. In combination with the other grades of the MONTANOV™ range, it can be used to modulate the texture and flexibility of the emulsions as desired.

LANOL™ 99

Isononyl Isononanoate

Texturizing agent.

SOLAGUM™ AX

Acacia Senegal Gum & Xanthan Gum

Combination of thickening polymers from vegetable origin validated by ECOCERT®. Eco-friendly product developed in accordance with sustainable development. Can be used with hot or cold process.

ORAMIX™ CG110

Caprylyl Capryl Glucoside

Non-ionic surfactant from vegetable origin. At low dosage (<2%), it allows to improve emulsifying performance of polymers..

SIMULGEL™ FL

Hydroxyethyl Acrylate / Sodium Acryloyldimethyl Taurate Copolymer & Isohexadecane & Polysorbate 60

Liquid, easy and ready to use polymer. Stabilize without thickening all types of oily phases in a range of pH from 3 to 11. Stabilizing capacity for fluid formulas.

Other raw materials...

- Ethylhexyl Methoxycinnamate : **Uvinul MC-80 (BASF)**
- Octocrylene : **Neo Heliopan 303 (Symrise)**
- Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine: **Tinosorb S (Ciba)**
- Titanium Dioxide: **MT-100TV (Tayca)**
- Cyclomethicone: **Dow Corning 345 (Dowcorning)**
- Methylene bis-benzotriazolyl tetramethylbutylphenol (50%): **Tinosorb M (Ciba)**
- Phenoxyethanol & Ethylhexylglycerin : **EUXYL™ PE9010 (SCHULKE)**
- Fragrance : **Frag61303658 (Drom)**