SEPPIC

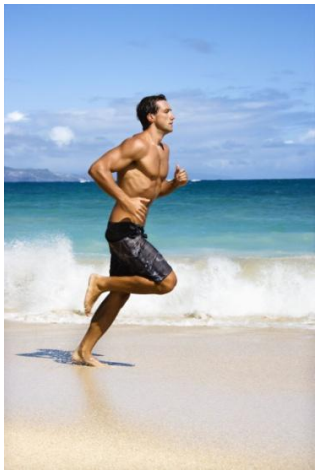
AS40039

SO SPORTY WATER RESISTANT SUN PROTECTION CREAM

***In Vitro* SPF 40**

O/W Emulsion

- **Ivory emulsion**
- **Packaging: bottle**
- **SENSANOV™ WR establishes a mat velvety sunscreen with a light skin feel. SEPIMAT™ HB V ensures a non-greasy and powdery feel which comforts the skin even in summer.**
- **SENSANOV™ WR creates 100% water resistance formulation (in vitro test: SEPPIC 57CO048A method)**
- **SIMULGEL™ NS ensures the fluidity of the emulsion, stabilizes the oil phase and minimizes a greasy skinfeel with high content of sun filters.**
- **In vitro test on SPF value: 40 (SEPPIC 57CO033B method)**
- **UVA/UVB ratio = 0.8**



AS40039 - 1403

Formula

A	**SENSANOV™ WR**	**3.00%**
	Triethanolamine	0.45%
B	Octocrylene	6.00%
	Ethylhexyl Salicylate	5.00%
	Butyl Methoxydibenzoylmethane	2.50%
	C12-15 Alkyl Benzoate	5.00%
	SEPIMAT™ HB V	**1.00%**
	Titanium Dioxide and Glycerine and Alumina	3.00%
C	Aqua/Water	Up to 100%
	Butylene Glycol	4.00%
	SOLAGUM™ AX	**0.30%**
	Tetrasodium EDTA	0.10%
	ORAMIX™ CG 110	**0.50%**
	Phenylbenzimidazole Sulfonic Acid	0.50%
	Triethanolamine	0.30%
D	Cyclopentasiloxane and Cyclohexasiloxane	2.00%
E	**SIMULGEL™ NS**	**2.30%**
F	Tocopheryl Acetate	0.20%
	Phenoxyethanol and Ethylhexylglycerin	1.00%
	Parfum / Fragrance	0.20%

Procedure

VERSAMIX ROTOR STATOR 7KG

Disperse TiO2 in oil phase B and grind until it's uniform. Add part B to main tank with stirring by a spatula. Heat to 80-85°C. Melt part A at 85°C and stir uniformly. Melt part A into part B at 85°C and stir uniformly. Mix part C well and heat at 85°C. Add part D into A+B, add part C into A+B+D, and then start homogenization at 4000rpm for 2 minutes. Introduce E to main tank, start homogenization at 4000rpm for 5 minutes. Cool down slowly. Add part F in the emulsion at 40°C. Adjust pH if necessary and stop stirring at 30°C.

Characteristics

Appearance	Ivory fluid emulsion
pH	7.3
Viscosity 1M at RT	22 300 mPa.s Brookfield S3 sp.6
Viscosity 1M at 45° C	16 800 mPa.s Brookfield S3 sp.6
Viscosity recovery at RT (after 1M at 45° C)	33 500 mPa.s Brookfield S3 sp.6
Stability	M3 Stable at RT, -18° C & 45° C M1 Stable after cycles -5/+40° 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™ WR 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. SENSANOV™ WR reduces oiliness of extra rich emulsion. Ideal for makeup products, SENSANOV™ WR is able to emulsify a high percentage of fillers keeping a perfectly smooth texture.

SOLAGUM™ AX
Acacia Senegal Gum and Xanthan Gum

Combination of natural thickening polymers. It allows you to formulate non-stringy translucent gels and can be used with hot or cold process. Ecocert and Natrue approved.

ORAMIX™ CG110
Caprylyl / Capryl Glucoside

Non-ionic surfactant from vegetable origin. It is an ideal solubilizing agent for foaming products because it solubilizes essential oils, fragrances and preservatives but also boosts foam volume. Its mild cleansing effect is interesting for the formulation of make-up removers, especially for lotions. It is particularly used to emulsify and disperse molecules in cream-gels. Ecocert, Cosmos and Natrue approved.

SEPIMAT™ HB V
Methyl Methacrylate Crosspolymer

Ultra-soft hollow and ultra light microspheres that impart a "powdery" effect at low use levels. This versatile, both hydro and lipo dispersible, powder allows formulators to make very powdery formulations containing low levels of oily materials. In O/W, W/O or W/Si emulsions, only 0.5% of Sepimat ™HBV is enough to avoid overly greasy formulations and provide a powdery feel.

SIMULGEL™ NS
Hydroxyethyl Acrylate/Sodium Acryloyldimethyl Taurate Copolymer and Squalane and Polysorbate 60

Thickening and emulsifying agent, Simulgel™NS is very easy to use in liquid form (neither pre-dispersion nor neutralization). It provides a sensation of freshness followed by a melting effect on the skin (velvety softness feeling). SimulgelTMNS perfectly stabilizes emulsions made at high temperatures.

Other raw materials…

- Octocrylene : **NEO HELIOPAN 303(Symrise)**
- Cyclopentasiloxane and Cyclohexasiloxane: **XIAMETER PMX-0345 (DOW CORNING)**
- Ethylhexyl salicylate: **PARSOL EHS (DSM)**
- Butyl methoxydibenzoylmethane: **EUSOLEX 9020 (MERCK)**
- C12-15 Alkyl Benzoate:**Cosmacol EBI (SASOL)**
- Titanium Dioxide and Glycerine and Alumina: **UV-TITAN M212 (MERCK)**
- Phenylbenzimidazole sulfonic acid:**EUSOLEX 232 (Merck)**
- Tocopheryl Acetate: **DL-α-TOCOPHERYL ACETATE (DSM)**
- Phenoxyethanol and Ethylhexylglycerin : **EUXYL™ PE9010 (S&M)**
- Fragrance: **FRAG272783 (DROM)**