HIGH PROTECTION SUN CREAM
VIVO SPF 30– BROAD SPECTRUM
6805B

Formula

A	▪ **SIMULSOL 165** *(Glyceryl stearate and PEG-100 stearate - SEPPIC)*	3.20 %
	▪ **MONTANOV S** *(Coco-glucoside and Coconut alcohol – SEPPIC)*	1.30 %
	▪ Diisopropyl adipate	10.00 %
	▪ Glycerin	7.00 %
	▪ Ethyl hexyl methoxycinnamate - *octinoxate*	7.50 %
	▪ Octocrylene	10.00 %
	▪ Butyl methoxy dibenzoylmethane - *avobenzone*	2.00 %
	▪ **SEPICALM VG** *(Sodium palmitoyl proline and Nymphea alba flower extract - SEPPIC)*	3.00 %
B	▪ **SEPIGEL 305** *(Polyacrylamide/C13.14 Isoparaffin/Laureth-7 - SEPPIC)*	1.20 %
	▪ Cyclomethicone	5.00 %
C	▪ **PECOSIL PS100** *(Dimethicone copolyol PEG-7 phosphate - PHOENIX)*	0.50 %
	▪ Tetrasodium EDTA	0.20 %
	▪ Xanthan gum	0.15 %
	▪ Magnesium aluminium silicate	1.00 %
	▪ Water	QSP 100%
D	▪ **SEPICIDE HB** *(Phenoxyethanol/Methylparaben/Ethylparaben /Propylparaben /Butylparaben - SEPPIC)*	1.00 %
	▪ DL alpha tocopherol	0.05 %
	▪ Fragrance	0.30 %
	▪ Tromethamine	qs pH

Procedure

Melt ingredients in A at 75°C. Disperse the silicate then the xanthan gum into the water. Heat the water phase to 75°C and add PECOSIL. Introduce A in C then start homogenizer. Introduce ingredients in B and continue homogenization step for few minuts. Allow to cool under moderate stir and at 40°C introduce ingredients in D. Adjust final pH if necessary.

Comments

SIMULSOL 165 Self emulsifying base.

MONTANOV S Glucolipid emulsifier in harmony with nature. The combination of SIMULSOL 165 / MONTANOV S makes it possible to guarantee the preservation of a smooth texture over time. This combination facilitates the formulation of suncare products that are stable in terms of texture, dispersion of sunscreens, protection factor, etc.

SEPICALM VG	Lipo-amino soothing agent enriched with water lily blossom extract. Specially adapted to the needs of sensitive skin and sun-damaged skin.
SEPIGEL 305	Thickening and emulsifying agent in liquid form. Very easy to use (no predispersion or neutralization). Provides a soft, non-sticky feel.
SEPICIDE HB	Preservatives.

Characteristics

Appearance	white emulsion.
pH	Environ 6.5
Viscosity	approx 100.000 mPa.s BROOKFIELD LV4 6rpm
Stability	Stable at RT/40°C/ 50°C and after freeze-thaw cycles -5 / +40°C (M1) Stable when centrifuged 3000rpm 20' 50°C

Notes

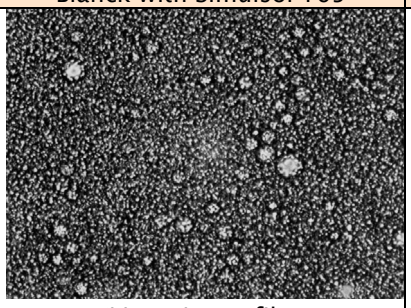
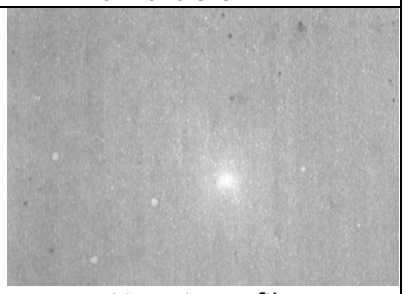
Cyclomethicone: DC345 (DOW CORNING)
Fragrance : VAHINE X010.030 (QUEST)
Ethyl hexyl methoxycinnamate = octinoxate: UVINUL MC80 (BASF)
Octocrylene : UVINUL N539T
Butyl methoxy dibenzoyl methane = avobenzone : PARSOL 1789 (GIVAUDAN ROURE)

Assessment

SPF stable over time - in vitro (measured after 1 month/ 3 monthes / 6 monthes) : 37 ± 4/ 37 ± 7/ 35 ± 5 (% UVB absorbed=97 - % UVA absorbed=89) – star category ☆☆☆
(protocol SEPPIC 57CO033, vitro skin®, spectrophotometer LABSPHERE®)

SPF - in vivo (measured after one month) : 28 ± 2
(5 volunteers – report DERMSCAN 100 691)

Compared to the same formulation containing only Simulsol 165, the formula 6805B helps to maintain a good dispersion of filters after spreading on skin , even after storage of the emulsion.

Microscopical aspect (x 400)	Blanck with Simulsol 165	Formula 6805B
Emulsion after four monthes of emulsion's storage	 thin and even film	 thin and even film
Standard film of 30µm made after one month of emulsion's storage (spearding on a glass plate)	 granular and uneven film	 thin and even film

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6805B – SEPPIC – A0207

Since this formula has not been the object of a toxicological study, the use and handling of the products proposed is purely indicative and SEPPIC accepts no responsibility for their use by another party.