SPRAYABLE SUN CARE FORMULATION

HIGH PROTECTION SPF >30

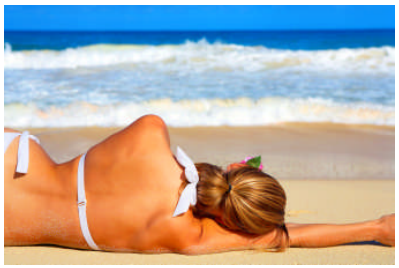
EU07085D

O/W Emulsion

- **ivoiry O/W emulsion fluid & sprayable**
- **Packaging: spray bottle**

- **Nice texture & soft skin feel thanks to MONTANOV™ L and Montanov™ 82**
- **Other possibility: add 1% of Sensanov™ WR for a dry and smooth skin feel**

Evaluation		°SPF 26 UVA
Méthode in vivo *5 volontaires dermscan rapport 07E2331*	**SPF** *valeur minimale et maximale obtenue*	22.0 à 32.3
	Moyenne UVA-PF	18.6
	Ratio Uva/UVb	0.5
Méthode in vitro *57 CO 033 labsphère*	**SPF** *(écart type)*	36.4 *(3.2)*
	Ratio UVa/UVb	0.80
	λc	383 nm
	Boots star rating	***



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Formula

A	**MONTANOV™ L**	1,00 %
	MONTANOV™ 82	1,00%
	C12-15 Alkylbenzoate	17,00 %
	Dimethicone	3,00 %
	Octocrylene	6,00 %
	Ethylhexyl Methoxycinnamate	6,00 %
	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	3,00 %
	Tocopherol	0,05 %
B	Aqua/Water	Qsp 100 %
C	**SIMULGEL™ INS 100**	0,50 %
	Cyclomethicone	5,00 %
D	**AQUAXYL™**	3,00 %
	Phenoxyethanol and Ethylhexylglycerin	1,00 %
	Parfum/ Fragrance	0,20 %
E	Methylene Bis-Benzotriazolyl Tetramethylbutylphenol	10,00 %
	Citric Acid 25%	Qs pH = 5

Procedure

(Pilot - TRIMIX - 7kg)

Heat phase B into the tank at 80° C. In a beaker melt A at 80° C. Pour A into B in the tank. Homogenize and pull vacuum. Add C ingredients into the tank, homogenize and pull vacuum. Cool down at 60° C and then, at 40° C. Qs pH = 5 for phase E. Add D and E in the tank. Homogenize and pull vacuum. Cool down at 20° C.

Characteristics

Appearance	Fluid and ivory emulsion
pH	5,6
Viscosity at RT	2,730 mPa.s BROOKFIELD LV2 speed 6
Viscosity after 1 month at 45° C	1,730 mPa.s BROOKFIELD LV2 speed 6
Stability at RT & 45° C	>M1
Stability in freeze / thaw cycles -5 / +40° C	>M1
Stability after centrifugation 20' à 3000 rpm	Stable
Stability after 18h at -18° C	Stable
Skin feel	Very good spreading

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.

MONTANOV™ 82

Cetearyl Alcohol and Coco-glucoside

Glucolipid emulsifier in harmony with nature. Stable emulsions can be formulated with only 1% Montanov™ 82. Montanov™ 82 is especially well-suited for formulations with a high concentration of active ingredients. 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. Montanov™ 82 is useful to obtain thick lotions with rich and smooth texture.

SIMULGEL™ INS 100

Hydroxyethyl Acrylate/Sodium Acryloydimethyl Taurate Copolymer and Isohexadecane and Polysorbate 60

This compound is in the form of liquid, and is ready-for-use. It is a thickening agent which stabilizes all types of oily phases. It can be used in a wide range of pH (3 to 11), and for the development of all types of consistencies: sprays, ultra-fluid to thick ones. It gives to the formulas a fresh and melting texture.

AQUAXYL™

Xylitylglucoside and Anhydroxylitol and Xylitol

Aquaxyl™ moisturizes and restructures the skin by harmonizing the hydric flow of the skin. Water reserves are instantly boosted and water loss is reduced (in vitro and in vivo tests prove this efficacy).

Other raw materials...

- C12-15 Alkylbenzoate: **C12-15 Alkylbenzoate (Stéarinerie Dubois)**
- Dimethicone: **DC 200/350 (Dow Corning)**
- Octocrylene: **Eusolex OCR (Merck)**
- Ethylhexyl Methoxycinnamate: **Uvinul MC 80 (BASF)**
- Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine: **Tinosorb S (Ciba)**
- DL α tocopherol: **Tocopherol (BASF)**
- Cyclomethicone: **DC345 (Dow Corning)**
- Phenoxyethanol and Ethylhexylglycerin: **Euxyl PE9010 (Schulke & Mayr)**
- Fragrance: **fleur de tiarée (Technicoflor)**
- Methylene Bis-Benzotriazolyl Tetramethylbutylphenol: **Tinosorb M(Ciba)**
- Citric acid : **Citric acid 25% (Merck)**