



**SPRAYABLE SUN CARE FORMULATION
HIGH PROTECTION SPF >30
7085 A- B- C**

Sprayable O/W emulsions, with a high level of internal phase (50%), can be formulated by using our various emulsifiers. The fatty phase contains 20% chemical filters. The final emulsion is very fluid and sprayable.

Formula

		7085B	7085A	7085C
A	• MONTANOV™ L (C14-22 alcohol and C12-20 alkylglucoside - SEPPIC)	1%	-	-
	• MONTANOV™ 82 (Cetearyl alcohol & Coco-glucoside - SEPPIC)	-	1%	1%
	• SENSANOV™ WR (C20-22 Alkyl phosphate and C20-C22 alcohols - SEPPIC)	-	-	1%
	• C12-15 Alkylbenzoate	17%	17%	17%
	• Dimethicone	3%	3%	3.00 %
	• Octocrylene	6.00 %	6.00 %	6.00 %
	• Ethylhexyl methoxycinnamate • Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	6.00 % 3.00 %	6.00 % 3.00 %	6.00 % 3.00 %
B	• Water	QSP100	QSP100	QSP100
	• tromethamine	-	-	0.1%
C	• DC345	5.00 %	5.00 %	5.00 %
	• SIMULGEL INS100 (Hydroxyethylacrylate/sodium acryloyldimethyl taurate copolymer & isohexadecane & polysorbate 60 - SEPPIC)	0.50 %	0.50 %	0.50 %
D	• AQUAXYL (Xylitylglucoside and anhydroxylitol and xylitol - SEPPIC)	3.00 %	3.00 %	3.00 %
	• Acetate de DL α Tocopherol	0.50 %	0.50 %	0.50 %
	• SEPICIDE™ HB (Phenoxyethanol & Methylparaben & Ethylparaben & Propylparaben & Butylparaben - SEPPIC)	1.00 %	1.00 %	1.00 %
	• Fragrance	0.20 %	0.20 %	0.20 %
E	• Methylene bis-benzotriazolyl tetramethylbutylphenol	10.00 %	10.00 %	10.00 %
	• Citric acid 25%	QS pH5	QS pH5	QS pH5

Procedure (Pilote - DUMEK – 2Kg)

Heat B into the tank at 80°C. In a beaker melt A at 80°C. When A is melted, pour C into A and homogenize with a spatula. Pour A+C onto B and mix with turbo 1 (700 rpm) and anchor during 6 minutes. After that, stop the homogenizer and let anchor stirring. At 50°C add D. At 20°C add E and mix with turbo 2 (1500 rpm) during 4 minutes.



Commentaires

- MONTANOV™ L** Glucolipid emulsifier in harmony with nature. MONTANOV™ L is especially useful to produce fluid formulas whatever the type or quantity of oil phase used. MONTANOV™ L has a shear-thinning profile that is stable over time and well-adapted to the formulation of sprayable emulsions. It offers easy stabilization in the presence of hydrosoluble active ingredients that are rich in electrolytes. MONTANOV™ L can promote liquid crystals according to the emulsion diagram, creating water reservoirs within the emulsion to help maintain skin moisturization. MONTANOV™ L is fully adapted to produce emulsions with any kind of texture fluid or thick.
- MONTANOV™ 82** Glucolipid emulsifier in harmony with nature. It facilitates the formulation of sun care products that are stable in terms of texture, dispersion of sunscreens, protection factor, etc. 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 able to emulsify a high % of oils and thus allows to obtain thick creams with rich and smooth texture
- SENSANOV™ WR** 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 invivo by a waterresistant effect for the development of sun care formulations. SENSANOV™ WR reduces oiliness of extra rich emulsion.
- SIMULGEL™ INS100** Thickening and emulsifying agent in very easy to use liquid form (no pre-dispersion or neutralization). Provides a sensation of freshness followed by a melting effect on contact with the skin. It leaves a feeling of velvety softness. SIMULGEL NS perfectly stabilizes emulsions against high temperatures. It's perfectly adapted for sprayable emulsion.
- SEPICIDE HB™** Preservative

Caractéristiques

	7085B	7085A	7085C
	Montanov L	Montanov 82	Montanov 82 + sensenov WR
Aspect	Fluid and ivory emulsion	Fluid and ivory emulsion	Fluid and ivory emulsion
pH	5.4	5.7	5.1
Viscosity at RT <i>mPa.s BROOKFIELD LV2 6rpm</i>	415	230	480
Viscosity after 1 month at 45°C <i>mPa.s BROOKFIELD LV2 6rpm</i>	220	180	325
Stability at RT & 45°C	>M1	>M1	>M1
Stability in freeze / thaw cycles -5 / +40°C	>M1	>M1	>M1
Stability after centrifugation 20' à 3000 rpm	stable	stable	stable
Stability after 18h at -18°C	stable	stable	stable

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Evaluation

		7085B	7085A	7085C
		 SPF 26	 SPF 25	 SPF 33
In vivo methode 5 volontariess dermscan report 07E2331	SPF minimale & maximale values	22.0 à 32.3	22.3 à 31.4	28.0à 44.1
	Average UVA-PF	18.6	14.4	17.0
	Ratio UVa/UVb	0.5	0.7	0.5
In vitro method 57 CO 033 labsphère	SPF (gap)	36.4 (3.2)	35 (7)	38 (3)
	Ratio UVa/UVb	0.80	0.80	0.81
	λc	383 nm	383 nm	383 nm
	Boots star rating	***	***	****

Remarques

DIMETHICONE : DC 200/350 (DOW CORNING)

CYCLOMETHICONE : DC345 (DOW CORNING)

OCTOCRYLENE : ESCALOL 597 (ISP)

ETHYLHEXYL METHOXYCINNAMATE: UVINUL MC 80 (BASF)

METHYLENE BIS-BENZOTRIAZOLYL TETRAMETHYLBUTYLPHENOL : TINOSORB M (CIBA)

BIS-ETHYLHEXYLOXYPHENOL METHOXYPHENYL TRIAZINE : TINOSORB S (CIBA)

FRAGRANCE : FLEUR DE TIAREE (TECHNICO FLOR)

N° 7085– SEPPIC – 0801

La formulation proposée n'ayant pas donné lieu à des études toxicologiques et microbiologiques, la manipulation et l'utilisation des produits proposés à titre purement indicatif n'engageront en aucun cas la responsabilité de SEPPIC.

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