



Mineral Protec'Sun 284-2.16

Daylight skin shield : keeps you protected through sun, sea and sand.

RICHNESS

PROCESS

APPLICATION

Suncare

Face care

Body care

Men care

NATURAL ORIGIN

97.9%

ISO 16128

FORMULATION FEATURES

- Bright white and shiny aspect
- Nice & homogeneous application and soft skin feel
- Slight glow after application
- Encapsulation of 30% mineral UV filters dispersion
- Improved spreadability and homogeneous application on the skin
- Sand & Water resistance proven : > 100%**

FUNCTIONAL INGREDIENTS

Pickmulse™ (4.5%) – Encapsulation system

- Can encapsulate pigments & UV mineral filters
- Improvement of mineral UV filters spreadability and homogeneous application
- Easy encapsulation process
- BOOSTED SPF : *In vitro* SPF 17.2 vs SPF 11 for free TiO2**

Lecigel™ (0.4%) – Gelling agent

- Light, supple and slippery textures
- High spreadability with quick absorption

Siligel™ (0.4%) – Gelling agent

- Amazing silicone-like skin feel
- Outstanding skin feel
- Good spreadability

INGREDIENT	INCI NAME	SUPPLIER	FUNCTION	%
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Premix 1				
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A	A1	Deionized Water Hexiol A-Leen® Aroma-3 Sodium Chloride	Water 1,2-Hexanediol Phenylpropanol Sodium Chloride	LMC Minasolve Minasolve Fluka	Vehicle Preservative Preservative Viscosity controller	45.52 1.65 0.53 0.30
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A2	Pickmulse™	Sodium Starch Octenylsuccinate	Lucas Meyer Cosmetics	Encapsulation system	4.50
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A3	Solaveil™ XT-300-LQ-(WD)	Titanium Dioxide (and) Caprylic/capric Triglyceride (and) Polyhydroxystearic Acid(and) Stearic Acid	Croda	Sunscreen mineral filter	22.50
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Premix 2				
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B	B1	Deionized Water	Water	LMC	Vehicle	22.95
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B2	Siligel™	Xanthan Gum (and) Lecithin (and) Scleoritium Gum (and) Pullulan	Lucas Meyer Cosmetics	Gelling agent	0.40
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B3	Lecigel™	Sodium Acrylates Copolymer (and) Lecithin	Lucas Meyer Cosmetics	Emulsi- Gelling agent	0.40
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B4	Dub OE HP	Ethyl Oleate	Stéarinerie Dubois	Emollient	1.25
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Manufacturing Procedure: HOT PROCESS In a container, prepare phase A1. 1. Disperse A2 into A1 under maximum stirring for 10 min (rotor stator homogenizer). 2. Add A3 into A1A2 and apply maximum stirring during 10 min to emulsify (rotor stator homogenizer). 3. Under tri-blade at low to very low speed, heat the formula up to 61.0°C. Stir for 15 min under the same speed and temperature to create a barrier treatment. 4. Cool down the formula under tri-blade until room temperature at the same speed.	Preparation of O/W gel-cream (Phase B) 5. Disperse B2 under maximum stirring for 5 min (rotor stator homogenizer) or until the gel is homogeneous. 6. Disperse B3 into B1B2 and apply a maximum stirring to deploy the gel (tooth propeller). 7. Add B4 into B1B2B3 and apply maximum stirring during 10 min to emulsify (tooth propeller). 8. Finally, introduce phase B into phase A under tri-blade at low to very low speed during 5 to 10 min or until the formula is homogeneous
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Formula specifications at D1: Aspect: White lotion Viscosity: (Brookfield LV, 25°C, spindle 4, 6rpm, 1min): 14 000 – 26 000 cPs pH: 6.2 – 6.8 Preservative efficacy test: Pass Pilot batch: 32kg	Stability tests: On pilot batch up to 32kg Up to 1 month at 50°C - Up to 3 months at: Room Temperature, 4-8°C and 45°C Temperature cycles (24h at 4°C and 24h at 45°C - 2 weeks) D1 Centrifugation (3000 rpm, 20 min) D1 Vibrating table (400 rpm, 4h): Acceptable
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