

# WATER-RESISTANT INORGANIC SUNSCREEN (US20112)

In vitro SPF 30+

<b>A</b>	Water (Aqua) Glycerin Sodium Hydroxide Solution 25% (w/w)		Up to 100%
<b>B</b>	<b>EMOSMART™ L19</b> (C15-19 Alkane) <b>DUB SSCI</b> (Isocetyl Stearoyl Stearate) <b>DUB VCI 10</b> (Isodecyl Neopentanoate) Polyhydroxystearic acid	<b>Seppic</b> <b>Stearinerie Dubois</b> <b>Stearinerie Dubois</b> Innospec	<b>8.00%</b> <b>9.00%</b> <b>8.00%</b> 1.00%
<b>C</b>	Zinc Oxide Titanium Dioxide, Alumina, Stearic Acid	Ultra Chemical Inc. EMD Chemicals	10.00% 10.00%
<b>D</b>	<b>SENSANOV™ WR</b> (C20-22 Alkyl Phosphate and C20-22 Alcohols)	<b>Seppic</b>	<b>2.00%</b>
<b>E</b>	<b>SEPINOV™ EMT 10</b> (Hydroxyethyl Acrylate / Sodium Acryloyldimethyl Taurate Copolymer)	<b>Seppic</b>	<b>0.25%</b>
<b>F</b>	Phenoxyethanol, Ethylhexylglycerin	Schulke Inc	1.00%

**Aspect :** White smooth cream

**pH:** 7.5 / **VISCOITIES:** **1M at RT:** 135,000 mPa.s Brookfield LV96-6 /

**Recovery at RT (after 1M at 45°C):** 154,000 mPa.s Brookfield LV96-6.

**STABILITY:** 3M at RT, 45°C, 3 cycles -5°C/+40°C.

**FORMULATION ADVICES: Laboratory scale - 2000 g - Homogenizer & Sweeper**

Combine phase B ingredients and heat it up to 40°C to melt polyhydroxystearic acid. Then add phase C ingredients one by one into B while homogenizing at 5000 rpm. Once phase C is added, homogenize at high shear if needed for more minutes. When phase (B-C) is properly dispersed and uniformed, stop homogenizing and then add phase D and heat to 85°C. Heat aqueous phase A to 85°C. Heat up oily phase (B-C+D) up to 85°C, then add phase E. Combine oily and aqueous phases together and homogenize at 4,000 rpm for 4 minutes. Cool down the batch with low shear mixing to 60°C and add phase F, then cool down the batch to RT.

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## HIGHLIGHT:

**SENSANOV™ WR** is able to emulsify a high percentage of sunscreens keeping a perfectly smooth texture. Perfect for water-resistance!

**SEPINOV™ EMT 10** thickens and stabilizes the emulsion while providing freshness and satiny skin feel.

**EMOSMART™ L19, DUB SSCI and DUB VCI 10** forms a trio of emollients providing excellent dispersions properties with a non-greasy skin-feel.

*Use on the skin for sun protection.*



NATURALITY  
PROFILE  
according to  
ISO 16128 norm

**IN VITRO SPF 30+**

**WATER RESISTANT**

**FORMULATED WITH MINERAL  
SUNSCREENS ONLY**



**SEPPIC**