



Let's Get Physical Sunscreen

with UniqSens™ SFE System

Reef Safe* · Emulsifier Free

The removal of emulsifiers and other lipid stabilizers contributes to the light, non-greasy texture and also makes the formula cold-processable. Our pectin-based lotion format can incorporate physical UV protection such as titanium dioxide. It goes on quickly without leaving a white cast.

*Does not contain oxybenzone or octinoxate



PROCESS

1. Combine ingredients in phase A.
2. Premix phase B, sprinkling in UniqSens™ SFE System and titanium dioxide.
3. Add phase B into phase A. Using high-shear rotor-stator mixer, homogenize at 7500 RPM with the emulsion screen stator for at least 5 minutes.
4. Return to mixing using propeller mixer with moderate speed. Add phase C when batch temperature is < 45° C.
5. Adjust pH using citric acid to 4.5-5.5.

ORDER OF ADDITION	INGREDIENTS	INCI/CHEMICAL NAME	WEIGHT %
A	Deionized Water	Water	q.s.
	Glycerin	Glycerin	3.5
B	Titanium Dioxide	Titanium Dioxide	5.0
	Sunflower Oil High Oleic	Helianthus Annuus (Sunflower) Seed Oil	10.0
	MCT	Caprylic/Capric Triglycerides	4.0
	Dermofeel® Toco 70	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	0.05
	UniqSens™ SFE System	Pectin (and) Xanthan Gum (and) Carrageenan	1.7
C	Dermosoft® Eco 1388	Aqua (and) Glycerin (and) Sodium Levulinate (and) Sodium Anisate	3.0
D	Citric Acid	Citric Acid	q.s.

KEY ATTRIBUTES	
Appearance	Opaque white lotion
pH	4.5-5.5
Viscosity (Brookfield LV3C, 30 rpm)	7300 cP
Stability	1 month at 45°C

NOTES:

Dermofeel® Toco 70 and Dermosoft® Eco1388 are trademarks of Evonik Industries AG. Brookfield viscometer is a product of AMETEK Brookfield.

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