

SkinSafeMD Smoothing Sunscreen SPF 35 with Triple Action Hydration (SU OW 019)

This non-comedogenic, clinical grade sunscreen pairs pure mineral SPF protection with a silicone-like powdery smooth sensory. Its unique Triple Action Hydration locks in moisture by turning sugar-based humectants into a powerful water retaining complex. This sunscreen is completely stable, providing a formulation platform that can easily incorporate multiple hero actives without destabilizing.

Claims: Broad Spectrum, Vegan, Cruelty-Free, Paraben-Free, Oil-Free, Non-Comedogenic, Siloxane-Free, PEG-Free

S-Block is the new generation of sensory UV-grade mineral dispersions designed for modern high performance sun care. It is an extremely light-feel dispersion with a smooth powdery sensory. It is non-nano, has an enhanced active loading of 78%, and gives predictable SPF and broad-spectrum benefits. Its excellent multi-system compatibility simplifies both formulation development and the manufacturing process.

Sensogel NOVUS is a very powerful polyol thickener which is used to great effect in this formula. Not only does it help achieve stability, but also boosts the viscosity of polyols like glycerin from a soft liquid into a structured gel, and tamps down on the traditional stickiness associated with these types of ingredients.

Specifications

- 🍏 SPF 37.05 (in-vivo, FDA protocol, two subjects)
- 🍏 Viscosity @ 1 rpm: 30,500 cP
- 🍏 Viscosity @ 10 rpm: 8,300 cP
- 🍏 50°C oven: 1 month stable
- 🍏 Freeze-Thaw: Passed 3 Cycles

PHASE	INCI NAME (TRADE NAME)	USAGE (WT%)
A	S-Block DZ 100 PDCC	27.0
	Isohexadecane	10.0
	Sensogel NOVUS	3.00
	Glyceryl Behenate (Compritol 888 CG ATO)	0.50
	Polyglyceryl-10 Mono/Dioleate (Caprol PGE 860)	3.00
B	Water	49.00
	Glycerin	1.00
	Erythritol (Erylite)	3.00
	Sorbitol	3.00
	Preservative	0.50

Processing Method

1. Stir Phase A with dispersion mixer (500-800 rpm) at 80°C until homogeneous. Homogenize (4000 rpm) while maintaining temperature at 80°C.
2. Mix Phase B with propeller mixer until homogenous and heat to 80°C.
3. Slowly add Phase B to Phase A while dispersing at high shear (1500-2000 rpm), then homogenize at 4000 rpm, 80°C.