

Mineral Glow Skin Calming Elixir, SPF 55 (SU OW 022)

PHASE	INCI NAME (TRADE NAME)	USAGE (WT%)
A	Zinc Oxide (and) Coco- Caprylate/Caprate (and) Polyhydroxystearic Acid (and) Polyglyceryl-3 Polyricinoleate (and)Triethoxycaprylylsilane (and) Lecithin (S-Block DZ CocoDerm)	14.0
	Zinc Oxide (and) Caprylic/Capric Triglyceride (and) Polyhydroxystearic Acid (and) Polyglyceryl-3 Polyricinoleate (and) Isostearic Acid (and) Lecithin (G-Block DZ 370)	14.0
	Isohexadecane	10.0
	Butyloctyl Salicylate (HallBrite® BHB)	5.00
	Hydroxyethyl Acrylate/Sodium Acryloyldimethyl Taurate Copolymer (and) Water (and) C15-C23 Alkane (and) Decyl Glucoside (and) C13-C14 Alkane (and) Glycerin (Sensogel NOVUS)	3.00
	Glyceryl Behenate (Compritol 888 CG AT0)	0.50
	Polyglyceryl-10 Mono/Dioleate (Caprol PGE 860)	3.00
B	Water	35.0
	Glycerin	3.00
	Erythritol (Erylite)	3.00
	Sorbitol	5.00
	Preservative	1.00
C	Fragrance	Q.S.
	Propanediol (and) Water (and) Piperonyl glucoside (Redyless®)	2.00
	Biosaccharide Gum-1 (Fucocerte)	1.00

Processing Method

1. Stir and heat Phase A with dispersion mixer (500-800 RPM) until homogeneous and reaches 80°C. Homogenize (4000 RPM) while maintaining temperature at 80°C for 5 minutes.
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 (4000 RPM) at 80°C for 5 minutes.
4. Propeller mix at a low shear (Maximum 300 RPM) to cool until it 30°C. Then add Phase C and mix until homogenous.

Specifications

- 🍏 SPF (In-vivo, FDA protocol, two subjects)
- 🍏 Viscosity @ 1 rpm: 24,080 cP
- 🍏 Viscosity @ 10 rpm: 6,440 cP
- 🍏 50°C oven: 3 months stable
- 🍏 Freeze-Thaw: Passed 3 Cycles

About the Prototype

Benchmark Product: Elta MD UV Clean Broad Spectrum SPF 46

Listen up, sunscreen formulators, because this incredible mineral sun serum has achieved the impossible - a lightweight, ultra low viscosity lotion that's SPF 55 in a stable **oil-and-water emulsion** filled with fantastic skin wellness actives. Experienced sun care formulators know that trying to reach SPF 50 using only zinc oxide in an oil-and-water emulsion has been a decades-long challenge for the industry, and usually results in thick, unstable formulas that can't hit their SPF and broad spectrum targets. That's not the case here, as this cutting-edge sunscreen features silky, transparent spreadability with viscosity so low it can be applied with a dropper, all without the long-term viscosity issues associated with zinc oxide. As a bonus, it also features a potent cocktail of award-winning actives that provide anti-redness, intense hydration and extended structural improvement in skin health - everything your skin needs for a long day in the sun.

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

Ingredient Highlights

G-Block products are COSMOS, NPA approved, mineral UV filter dispersions which give predictable SPF and broad-spectrum benefits. Their excellent stability and industry-leading active content simplifies both formulation development and the manufacturing process.

S-Block DZ CocoDERM is the new generation of sensory UV-grade mineral dispersions designed for modern high performance sun care. It features a high slip sensory during application with a medium moisturizing after-feel. 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.

Redyless® is a high-powered anti-redness active that won a Best Ingredient Award when it first debuted at In-Cosmetics Global. This innovative active calms the skin with a two-pronged approach, by reducing skin flushing as a reaction to external stimulants (e.g. temperature, food) and by encouraging more efficient biological activity within the blood vessel network around the face.

Fucocert® is an advanced bio-fermented active that leverages the power of fucose polysaccharides to deliver moisture, anti-aging benefits and skin structure improvement. Enjoy healthy, happy skin without the redness and discomfort caused by external aggressors.