

## Stress Free Sun Elixir, SPF 50, Broad Spectrum (SU-WO 019)

PHASE	INCI NAME (TRADE NAME)	USAGE (WT%)
A	Distilled Water	34.5
	Biosaccharide Gum-1 (Fucocert®)	0.50
	Propanediol	4.00
	Magnesium Sulfate	1.00
	Preservative	0.50
B	Zinc Oxide (and) Coco- Caprylate/Caprate (and) Polyhydroxystearic Acid (and) Polyglyceryl-3 Polyricinoleate (and) Triethoxycaprylylsilane (and) Lecithin (S-Block DZ CocoDerm)	31.5
	C13-15 Alkane (Hemisqualane from Sugar Cane) (and) Quaternium-90 Bentonite (and) Triethyl Citrate (G-Gel Eco-HMS)	4.00
	Dicaprylyl Carbonate (Cetiol CC)	10.0
	Undecane (and) Tridecane (Cetiol Ultimate)	7.00
C	Polyglyceryl-4 Diisostearate/Polyhydroxystearate/Sebacate (Iso1an GPS)	5.50
D	Fragrance	Q.S.
	Propanediol (and) Aqua (and) Sophora Japonica Flower Extract (Resistress®)	1.50

## Processing Method

1. Premix Phase A with a propeller blade at 500 RPM for 5 minutes or until all the magnesium sulfate is fully dissolved at room temperature.
2. Use a dispersion blade to premix S-Block DZ CocoDerm and G-Gel Eco-HMS (500-1000 RPM) at room temperature until it is a smooth paste. Then add the remaining ingredients in Phase B and mix until homogenous.
3. Add Phase C to Phase B and homogenize at 4000 RPM for 3 - 5 minutes with Silverson Homogenizer at room temperature.
4. Add Phase D to combined Phase ABC and propeller mix for 5 minutes until completely homogenous.

## Specifications

- 🍏 SPF: 50; FDA protocol
- 🍏 CW: 373 nm, Broad Spectrum
- 🍏 Viscosity at 10 rpm: 10,120 cP
- 🍏 50°C oven: 1 month stable
- 🍏 Freeze-Thaw: Passed 3 Cycles

## About The Prototype

*Benchmark Product: Shiseido Urban Environment Oil-Free Mineral Sunscreen, SPF 42*

Need a simplified skincare routine? With the Stress Free Sun Elixir, you can get sun protection and many skin benefits all in one. This lightweight water-in-oil emulsion provides SPF 50 while supplying your skin with stress relieving, moisturizing, and anti-aging benefits! The skin is left feeling velvety smooth and protected from the sun with just one product!

## Formulator Focus

The combination of S-Block DZ CocoDerm and G-Gel Eco-HMS creates an ultra-stable mineral SPF emulsion that enhances the delivery of skin health-boosting biotech actives like Fucocert® and Resistress®. As a result, you'll be able to cover a huge spectrum of benefit claims using a single active-functional chassis, everything from high-powered hydration, broad spectrum SPF, anti-oxidation, anti-redness, skin rejuvenation, to non-comedogenic, oil-free, and microbiome-friendly.

## Ingredient Highlights

### 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.

### RESISTRESS®

is an extract rich in polyphenols, derived from Sophora japonica flowers using a patented enzymatic bioconversion process that enriches it with quercetin dimers. It stimulates your skin's antioxidant system to defend against oxidative stress and boost skin cell regeneration, helping to reduce signs of premature aging and skin burnout.

### 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.

### G-GEL ECO-HMS

is an organoclay gel designed for clean beauty applications. It greatly boosts suspension and sensory of color cosmetic chassis, making it a crucial ingredient in stabilizing high concentrations of color pigments with mineral SPF.