Applechem Formulary - Super Hybrids



Gliding Glow Beam Stick, SPF 30, Broad Spectrum (CF-F 019 v2)

PHASE	INCI NAME (TRADE NAME)	USAGE (WT%)
A	Distilled Water	11.0
	Propanediol	5.00
	Biosaccharide Gum-1 (Fucocert®)	1.00
	Magnesium Sulfate	1.00
	Preservative	0.50
B ₁	Zinc Oxide (and) Coco- Caprylate/Caprate (and) Polyhydroxystearic Acid (and) Polyglyceryl-3 Polyricinoleate (and) Triethoxycaprylylsilane (and) Lecithin (S-Block DZ CocoDerm)	27.0
	C13-15 Alkane (Hemisqualane from Sugar Cane) (and) Quaternium-90 Bentonite (and) Triethyl Citrate (G-Gel Eco-HMS)	6.00
B ₂	Rice Bran Wax	6.50
	Solid Coconut Oil	1.00
	Dicaprylyl Ether (Cetiol OE)	8.45
	Safflower oil / Palm oil aminopropanediol esters (Omega6 CERAMIDE®)	0.50
	Silica (MSS-500)	2.00
С	Sorbitan Olivate (Olivem 900)	5.00
	Glyceryl Behenate (compritol 888 CG ATO)	0.50
D	Synthetic Fluorphlogopite (and) C.I. 77891 (and) Tin Oxide (Timiron SynWhite Satin)	3.00
	Mica (and) Bismuth Oxychloride (and) Iron Oxides (Chroma-Lite Brown)	0.75
	Mica (and) Bismuth Oxychloride (and) Iron Oxides (Chroma-Lite Bronze)	1.00
	Mica (and) C.I. 77891 (and) C.I. 77491 (Colorona Transgold MP-28)	3.10
	Mica (and) C.I. 77499 (and) C.I. 77491 (and) C.I. 77891 (Colorona Aborigine Amber)	0.80
	Polyhydroxystearic acid (and) Caprylic/Capric Triglyceride (and) Isostearic Acid (and) Lecithin (and) Polyglyceryl-3 Polyricinoleate (Applecare PDS 300)	1.40
	Coco Caprylate/Caprate	10.00
	Synthetic Fluorphlogopite (and) C.I. 77891 (and) C.I. 77491 (and) Tin Oxide (Colorona SynRussian Gold)	4.50

Processing Method:

- 1. Mix Phase A at RT with propeller until everything is completely dissolved.
- 2. Mix Phase D with a dispersion blade at 70C for 20 minutes (until homogenous).
- 3. Dispersion mix Phase B₁ at RT until G-Gel is fully dispersed.
- 4. Add Phase B₂ to B₁ and gently mix by hand until Silica is incorporated. Microwave using 10 second intervals and mix until the temperature reaches 80C. Then dispersion mix at 500-800 RPM for 5 minutes.
- 5. Add Phase C to B and dispersion mix for another 5 minutes until homogenous.
- 6. Add Phase D to BC and mix for 3-5 min. Scrape the edges to ensure pigment is evenly dispersed.
- 7. Heat Phase A to about 80C and slowly add to Phase BCD while dispersing at 300-500 RPM. (Low shear prevents bubbles) Continue mixing for 5 minutes.

Specifications

- SPF: 30, FDA protocol, 1 subject
- CW: 370 nm, Broad Spectrum
- Freeze-Thaw: Passed 3 Cycles

EDITION: SEPT 2023 REF: COCO WO 2309-5C





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About The Prototype

Benchmark Product: Benefit Watt's Up! Cream Highlighter

This highlighter stick formula glides effortlessly on the skin and leaves you with a beautiful, long-lasting glow with a powdery finish. The texture provides a "weightless" sensory intended for layering over existing applied SPF on the high points of the face.

Formulator Focus

The combination of S-Block DZ CocoDerm, G-Gel Eco-HMS, and Applecare PDS-300 creates an ultrastable mineral SPF platform that enhances the delivery of skin health-boosting biotech actives like Fucocert® and Omega6 Ceramides®•

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.

OMEGA 6 CERAMIDE ®

uses the latest in ezymatic biocatalytic technology to fuse a natural ceramide-like molecular structure with plant-sourced Omega fatty acids. The result is an advanced biomimetic skin active that is even more effective than traditional ceramides at skin barrier repair and restoration in addition to providing soothing anti-inflammatory properties.

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.

Applecare PDS-300

is widely known for its use in wetting and dispersing traditional pigments. In this formulation it is used to disperse specialty and pearlescent pigments therefore allowing for the development of a consistent brilliant shine.