Applechem Formulary - Super Hybrids



Flushed Velvet Blush Putty, SPF 43.5, Broad Spectrum (MU-BL 002)

PHASE	INCI NAME (TRADE NAME)	USAGE (WT%)
A	Distilled Water	30.0
	Propanediol	5.00
	Biosaccharide Gum-1 (Fucocert®)	1.00
	Magnesium Sulfate	1.00
	Glycerin	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)	31.50
	C13-15 Alkane (Hemisqualane from Sugar Cane) (and) Quaternium-90 Bentonite (and) Triethyl Citrate (G-Gel Eco-HMS)	5.00
B ₂	Rice Bran Wax	1.00
	Behenyl Behenate (Dermowax BB)	2.00
	Solid Coconut Oil	1.00
	Dicaprylyl Ether (Cetiol OE)	7.08
	Safflower oil / Palm oil aminopropanediol esters (Omega6 CERAMIDE®)	0.50
	Silica (MSS-500)	5.00
С	Sorbitan Olivate (Olivem 900)	5.00
	Glyceryl Behenate (Compritol 888 CG ATO)	0.50
	Polygyceryl-4 Diisotearate/Polyhydroxystearate/Sebacate (Isolan GPS)	2.00
D	Caprylic/Capric Triglycerides	0.40
	Polyhydroxystearic acid (and) Caprylic/Capric Triglyceride (and) Isostearic Acid (and) Lecithin (and) Polyglyceryl-3 Polyricinoleate (Applecare PDS 300)	0.04
	Red Iron Oxide	0.32
	Yellow Iron Oxide	0.08
	Red 7 Lake	0.08

Processing Method:

- 1. Mix Phase A at RT with propeller until all is dissolved.
- 2. Dispersion mix Phase B₁ until G-gel is completely dispersed.
- 3. Mix Phase D with a dispersion blade at 70C for 20-30 minutes (until homogenous consistency/appearance). Pass through 3 roller mill (7:3, 3:1 gap size).
- 4. Add Phase D to Phase B₁ and dispersion mix at 500-800 RPM for 5 minutes. Scrape the edges to ensure pigment is evenly dispersed.
- 5. Add Phase B₂ to Phase B₁D 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.
- 6. Add Phase C to BD. Dispersion mix at 500 RPM until emulsifier is fully dissolved and temperature is at 85C.
- 7. Heat Phase A to about 80C and slowly add to Phase BCD while dispersing at a high shear (1000-1500 RPM). Lower RPM to 500 RPM once all water is incorporated (Low shear prevents bubbles). Continue mixing for 5 minutes.

EDITION: SEPT 2023 REF: COCO WO 2307-51

Specifications

- SPF: 43.5, FDA protocol, 1 subject
- CW: 370 nm, Broad Spectrum
- Freeze-Thaw: Passed 3 Cycles





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About The Prototype

Benchmark Product: ELF Putty Blush

This Putty Blush has a soft, bouncy texture that not only gives a burst of vibrant color, but also shields your skin from the sun's rays! As you effortlessly blend it in, the soft putty-like texture seamlessly transforms into a velvety, soft matte finish. Our hybrid blush combines soothing anti-aging skincare actives with color cosmetics. This versatility empowers you to wear it solo or alongside other makeup products, allowing you to effortlessly elevate your beauty routine.

Formulator Focus

The combination of S-Block DZ CocoDerm, G-Gel Eco-HMS, and Applecare PDS-300 creates an ultra-stable 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 SPE.

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.