Advanced Nature Silk Premium Sunscreen, SPF 58, Broad Spectrum (SU-WO 17S V2)

A 100% clean super low viscosity water-in-oil sunscreen with unmatched transparency and water resistance. This lightweight SPF 58 has great spreadability and stability without needing to "shake well".

Applecare PDS 300 (our pigment wetter and dispersant-in-one) in combination with G-Block DZ-370 CCT ensures in-vivo 80 minute water resistance in this formulation.

G-GEL Eco-HMS is an organoclay gel designed for clean beauty applications. It greatly boosts suspension and sensory of mineral pigments, making it a crucial ingredient in stabilizing mineral sunscreens. It also shows an excellent thermal stability and suspension power in this low viscosity formulation and a significant SPF enhancement.

G-Block DZ 370 CCT is the industry standard for Zinc Oxide SPF dispersions. Applechem's three-fold focus on transparency, stability, and SPF performance makes formulating simple and brands successful.

Specifications

- SPF 58; FDA protocol, 1subject
- SPF 58; *In- vivo* 80 minutes water resistance, FDA protocol, 3 subjects
- CW: 371 nm, Broad Spectrum
- *Viscosity @ 10 rpm: 3,522 cP*
- *50°C oven: 1 month stable*
- *Freeze-Thaw: Passed 3 Cycles*

PHASE	INCI NAME (TRADE NAME)	USAGE (WT%)
A	Distilled Water	20.9
	Propanediol	3.00
	Sodium Chloride	0.80
	Preservative	0.30
B_1	G-Block DZ 370 CCT	35.0
	Applecare PDS 300	2.00
	G-Gel Eco-HMS	2.50
B_2	Ethyl Macadamiate (Floramac 10)	15.5
C	C13-15 Alkane (Hemisqualane)	18.0
	Polyglyceryl-4 Diisostearate/ Polyhydroxystearate/Sebacate (Isolan GPS)	2.00
D	Fragrance	Q.S

Processing Method

1. Mix Phase A at 500 rpm for 10 minutes at room temperature.
2. Mix Phase B_1 (500-1000 rpm) with a dispersion blade at room temperature until the G-gel is fully dispersed. Slowly add Phase B_2 to B_1 while homogenizing and then homogenize for 10 minutes.
3. Add and mix Phase C to Phase B with a dispersion blade at room temperature.
4. Slowly add Phase A into Phase BC with a dispersion blade while increasing speed to 1500 rpm, stir for 15 minutes.
5. Add Phase D and mix until homgenous.

Significant Thermal Stability and SPF Enhancement from G-Gel In the Same Formulation

SPF 50	SPF 50	SPF 58	SPF 58
G-BLOCK DZ 370 CCT	G-BLOCK DZ 370 CCT	G-BLOCK DZ 370 CCT	G-BLOCK DZ 370 CCT
	APPLECARE PDS 300		APPLECARE PDS 300
		GGEL ECO-HMS	GGEL ECO-HMS
SETTLEMENT IN 1 DAY IN 50° C OVEN	SETTLEMENT IN 1 DAY IN 50° C OVEN	STABLE FOR 1 MONTH IN 50° C OVEN	STABLE FOR 1 MONTH IN 50° C OVEN

applechem
Create Possibilities

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