Applechem Formulary - Sunscreen

Snow Dew Hydrating Sun Serum SPF 54, Broad Spectrum (SU-WO 018)

Don't you hate it when sunscreen feels thick and heavy? Snow Dew Hydrating Sun Serum feels more like skincare than a heavy sunscreen. It is a SPF 54 water-in-oil emulsion designed to have thin, light viscosity yet still retains strong formulation stability. It features a refreshing burst of hydration upon initial application.

Applecare PDS 300 evenly distributes highly- loaded mineral UV filters to provide a smooth sensory with UV-blocking effects. It greatly reduces the tacky after- feel.

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.

PhytoCare is a magic hydration powerhouse active which forms a moisture- restoring flexible film to hydrate and repair the skin, thus rebuilding skin elasticity.

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

OleoFLEX are film forming elastomeric texturizers for natural oils. They increase water resistance and lock the UV actives and natural oils onto the skin.

Specifications

- SPF:53.7; FDA protocol, 2 subjects
- CW: 373 nm, Broad Spectrum
- *Yield Stress: 821,500 cP*
- *Viscosity at 10 rpm: 4,200 cP*
- *50°C oven: 1 month stable*
- *Freeze-Thaw: Passed 3 Cycles*

PHASE	INCI NAME (TRADE NAME)	USAGE (WT%)
A	Distilled Water	33.2
	Snow Mushroom Extract (PhytoCare-HA CG 1M)	0.10
	Propanediol	3.00
	Xanthan Gum	0.10
	Disodium EDTA	0.10
	Glycerine	2.00
	Preservative	0.50
B	G-Block DZ 480 CCT	15.0
	Applecare PDS 300	3.00
	G-Gel ECO-HMS	3.00
	Oleoflex FG 100	3.00
	C12-15 Alkyl Benzoate	5.00
	Isononyl Isononanoate	5.00
	C15-19 Alkane (EMOSMART L19)	10.0
	Octocrylene	10.0
	Octisalate	5.00
C	Cetyl PEG/PPG-10/1 Dimethicone (Abil EM 90)	2.00
D	Fragrance	Q.S.

Processing Method

1. Homogenize Phase A for 15 minutes at room temperature.
2. Homogenize Phase B for 30 minutes at room temperature separately.
3. Add Phase C and then homogenize (2 minutes, 4000 rpm).
4. Add Phase A to Phase BC and homogenize for 5 minutes.

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Create Possibilities
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