

W/O Mineral Sunscreen Lotion TG23-SMN

Mineral sunscreen incorporating **PRODEW™ 700** for skin caring benefits.

AMIHOPE™ SB-101 enhances UV protection effect and sensory feelings such as less stickiness.

	Trade Name	INCI Name	wt%	Function
A	Ultimo Pure Crodamol TN *1	Isotridecyl Isononanoate	1.0	Emollient
	DOWSIL ES-5612 Formulation Aid *2	PEG-10 Dimethicone	1.0	Emulsifier
	CITHROL DPHS *1	PEG-30 Dipolyhydroxystearate	2.0	Emulsifier
	Polyaqual OS2 *3	Polyglyceryl-2 Oleate, Polyhydroxystearic Acid, Polyglyceryl-2 Stearate	2.0	Emulsifier
	BENTONE GEL ISD-V *4	Isododecane, Distearidimonium Hectorite, Propylene Carbonate	10.0	Thickening agent
B	Ultimo Pure Crodamol TN *1	Isotridecyl Isononanoate	20.0	Emollient
	DOWSIL ES-5612 Formulation Aid *2	PEG-10 Dimethicone	4.0	Emulsifier
C	STR-100C-LP *5	Titanium Dioxide, Aluminum Hydroxide, Hydrogen Dimethicone	8.0	UV scattering agent
	FINEX 33W-LP2 *5	Zinc Oxide, Hydrated Silica, Hydrogen Dimethicone	8.0	UV scattering agent
D	AMIHOPE™ SB-101	Silica, Microcrystalline Cellulose, Lauroyl Lysine	2.0	SPF booster Sensory improver
E	1, 3-BG	Butylene Glycol	6.0	Humectant
	PRODEW™ 700 (50%)	Sodium PCA, Sodium Polyaspartate, Butylene Glycol, Betaine, Zinc PCA, Sodium Citrate, Arginine, Serine, Lysine HCl, Glutamic Acid, Water	2.0	Skin conditioning, Moisturizer, Sebum control, Adhesion improver
	Magnesium Sulfate	Magnesium Sulfate	0.5	Stabilizer
	Preservative	Preservative	q.s.	Preservative
	Water	Water	balance	Solvent
		Total	100	

*1 Croda, *2 Dow, *3 Innovacos, *4 Elementis, *5 Sakai Chemical Industry

<PROCEDURE>

1. Mix part B uniformly, then add part C and mix by hand, and disperse part (B+C) with a roller mill 3 times.
2. Add part A and part D into part (B+C).
3. Heat and dissolve part (A+B+C+D) at 75 °C with a homogenizing mixer (1,000 rpm), then cool to 60 °C.
4. Heat and dissolve part E at 55 °C.
5. Slowly add part E into part (A+B+C+D) with stirring and mix with a homogenizing mixer (3,000 rpm) at 55 °C, then cool to 40 °C or less.
6. Cool to r.t by stirring with a paddle mixer (150 rpm).

<PHYSICAL PROPERTIES and STABILITY>

Appearance : Fluid

Viscosity : 3,950 mPa·s (B-Type, Rotor No. M4, 30 rpm, 30 sec.)

Stability : -5°C, 5°C, 25°C, 40°C, 50°C, Cycle(0 ~ 45°C), 3 Months *In-vitro* SPF value: 61.2



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