



SUN#PLAYTIME#SPF30 — CPF 4302

Oil-in-Water Sun Cream

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Phase	Trade name / Supplier	INCI name	Wt %
A	Water	Water / Aqua	55.32
	SunSpheres™ BIO SPF Booster / Dow	Microcrystalline Cellulose	1.50
	VERSENE™ NA ₂ Crystals Chelating Agent / Dow	Disodium EDTA	0.05
	Propylene Glycol	Propylene Glycol	1.00
	Methyl Gluceth-10 / Making Cosmetics	Methyl Gluceth-10	1.00
B	Keltrol CGT / CP Kelco	Xanthan Gum	0.50
	PEG-40 Stearate / Making Cosmetics	PEG-40 Stearate	1.00
	Glyceryl Stearate / Making Cosmetics	Glyceryl Stearate	1.00
	Procol CS20D / Making Cosmetics	Cetearyl Alcohol (and) Cetareth-20	3.00
	C12-15 Alkyl Benzoate / Making Cosmetics	C12-15 Alkyl Benzoate	7.00
	XIAMETER™ PMX-200 Silicone Fluid, 5 cSt / Dow	Dimethicone	4.00
	HallBrite BHB / HallStar	Butyloctyl Salicylate	5.00
	CCT / Spectrum	Caprylic/Capric Triglyceride	2.00
	ZnO-C-NJE3 / Kobo	Zinc Oxide, Jojoba Esters	7.00
	MT-500B-NJE5 / Kobo	Titanium Dioxide, Jojoba Esters	9.00
C	Pelemol PHS-8 / Phoenix Chemical	Polyhydroxystearic Acid	0.50
	TEA, 99% / Dow	Triethanolamine	0.13
D	Phenoxyethanol SA / Making Cosmetics	Phenoxyethanol (and) Caprylyl Glycol	1.00

Processing instructions:

1. Add SunSpheres™ BIO SPF Booster to water, mixing at RT until dispersed/ no clumps ~20 min, then add rest of the water phase ingredients mixing well between additions. Begin heating to 70-75°C with good mixing.
2. In separate vessel begin adding ingredients of phase B one at a time. Start mixing with overhead mixer. At ~65°C homogenize for 3 min.
3. Once both phases are at 70-75°C, add phase B to phase A and mix well ~5 min. Move to homogenizer (no heat) and homogenize 2-3 min.
4. Move back to overhead mixing and allow to cool to ~45°C.
5. Add TEA to adjust pH to 8.
6. Add phase D and mix until uniform.

Appearance: White cream

Viscosity: 50,000-60,000 cPs

pH: 7.5-8.0

In vivo SPF 35

Disclaimer: Contained in this package is a sample prepared as per the formulation described on this card. Any variation in the formulation/procedure may cause performance to change.

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Form No. 27-2735-01-1221 S2D