



SUN#DAILY#SPF30 — CPF 4301
Oil-in-Water Sun Cream

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Oil-in-Water Sun Cream

Phase	Trade name / Supplier	INCI name	Wt %
A	Water	Water / Aqua	60.75
	SunSpheres™ BIO SPF Booster / Dow	Microcrystalline Cellulose	1.50
	EcoSmooth™ Universal Fluid 75-H-450 / Dow	PEG/PPG-17/6 Crosspolymer	0.50
	Butylene Glycol	Butylene Glycol	2.00
	VERSENE™ NA ₂ Crystals Chelating Agent / Dow	Disodium EDTA	0.10
	SymSave H / Symrise	Hydroxyacetophenone	0.50
	ACULYN™ 38 Rheology Modifier / Dow	Acrylates / Vinyl Neodecanoate Crosspolymer	3.00
	Procol CS20D / Making Cosmetics	Cetearyl Alcohol (and) Ceteareth-20	1.75
B	Arlacel 165 / Spectrum	Glycerol Stearate (and) PEG-100 Stearate	2.00
	CCT / Spectrum	Caprylic/Capric Triglyceride	5.00
	C12-15 Alkyl Benzoate / Making Cosmetics	C12-15 Alkyl Benzoate	5.00
	Parsol HMS / DSM	Homosalate	5.00
	Parsol EHS / DSM	Octisalate / Ethylhexyl Salicylate	5.00
	Parsol 1789 / DSM	Avobenzone / Butyl Methoxydibenzoylmethane	3.00
	Parsol 340 / DSM	Octocrylene	4.00
C	TEA, 99% / Dow	Triethanolamine	0.40
D	Neolone PH 100 Preservative / DuPont	Phenoxyethanol	0.50

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.

Processing instructions:

1. Add SunSpheres™ BIO SPF Booster to water and mix until dispersed/no clumps (~30 minutes). Then start heating to 70-75°C and continue mixing. Add SymSave H, Butylene Glycol, EcoSmooth™ Universal Fluid 75-H-450, VERSENE™ NA₂ Crystals Chelating Agent, followed by ACULYN™ 38 Rheology Modifier. Continue mixing and heating to 70-75°C.
2. Mix sunscreen ingredients of phase B together and start heating to 70-75°C. Continue mixing/heating until Avobenzone dissolves, then add remainder of phase B ingredients. Mix at 70-75°C until all ingredients are melted/dissolved.
3. With phase B @ 70°C add to phase A (70-75°C) and mix well for 5 min.
4. Homogenize at 10,000 rpm for 3 min. After 2 min, add half of phase C (TEA) and continue to homogenize.
5. Switch back to standard mixing and add the other half of phase C. When batch reaches 45°C, add phase D and continue mixing until batch reaches 25°C. Adjust pH to 6.0-7.0 with phase C if necessary.

Appearance: White cream

Viscosity: 60,000-80,000 cPs

pH: 6.0-7.0

In vivo SPF 37

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