SPF 80 Sunscreen

Formulation

A high SPF recreational sunscreen that gives superior sensorial and protection for your skin.

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PHASE A

PHASE TOTAL: 100.0000%

PHASE INSTRUCTIONS

No phase instructions provided.

TRADE NAME	INCI NAME	FUNCTION	W/W %
Delonized Water	Water	-	48.3500
Pemulen™ EZ-4U	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	-	0.0500
SunSpheres™ Powder	Water (and) Styrene/Acrylates Copolymer	Sunscreen Agents	5.0000
Parsol® 1789	Avobenzone	-	3.0000
Parsol® HMS	Homosalate	-	15.0000
Parsol® EHS	Ethylhexyl Salicylate	-	5.0000
Parsol® 340	Octocrylene	-	10.0000
LexFeel® 7	Neopentyl Glycol Diheptanoate	Light, dry, and spreadable sensory emollient. This ester is excellent for solubilizing UV filters and dispersing pigments. It imparts a non-greasy after-feel and reduces the tackiness of heavier emollients.	3.0000
PARSOL® Shield	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	UV Filter	0.3000
Lexemul® 561 MB	Glyceryl Stearate (and) PEG-100 Stearate	® 561 MB Traditional nonionic emulsification system.	1.0000
SustOleo™ BA	Brassica Alcohol	Emulsifier	3.0000
Spheron LP-230	Silica	-	3.0000
LexFilm™ Sun Natural MB	Capryloyl Glycerin/Sebacic Acid Copolymer	100% plant-based, liquid film-former. Creates water-resistance and helps to provide an even coverage of product on skin in order to achieve a high SPF rating.	2.0000

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Spectrastat™ E	Caprylhydroxamic Acid (and) Ethylhexylglycerin (and) Methylpropanediol	Alternative preservation system for broad spectrum coverage even at neutral pH.	1.0000
Parsol® MAX	Methylene Bis-Benzotriazolyl Tetramethylbutylphenol	-	0.3000
Triethanolamine	Triethanolamine	Stabilizers | pH Adjusters / Buffering Agent	0.0000 (q.s.)

Specifications

VISCOSITY

70,000 – 80,000 cps

PH TARGET

5.50 - 6.00

PROCEDURE

Disperse Item 3 in hot DI water (main batch) at high shear, and then disperse Item 2.
Mix Items 4 – 13, heat to 80 °C while mixing until clear.
Add Items 4 – 13 to main batch with homogenizing until it is uniform.
At 65 °C, add Items 14 and 15 into the batch and mix uniformly.
Stop mixing 45 °C to 50 °C.
Adjust pH to 5.00 to 6.00 with Item 16.