FORMULATION

# Sunscreen Lotion SPF 30

#LPC-24-6

#### Overview

This lightweight, non-greasy sunscreen lotion offers broad-spectrum SPF 30 (estimated) protection against harmful UVA and UVB rays. Formulated with Soltellus 2501L (sodium polyaspartate), this innovative sunscreen provides a protective barrier on the skin, helping to prevent solar erythema and premature aging.

### Composition

Trade Name	INCI	% w/w
DI Water	Water	75.10
Glycerine USP 99.7%	Glycerin	3.00
Soltellus <sup>™</sup> 2501L	Sodium Polyaspartate	2.00
Avobenzone	Avobenzone	2.50
EnSense™ Silk ALB	C12-15 Alkyl Benzoate	5.00
Homosalate	Homosalate	3.00
Octocrylene	Octocrylene	2.50
Biobase® S	Glyceryl Stearate (and) Cetearyl Alcohol (and) Sodium Stearoyl Lactylate	3.50
Aristoflex <sup>®</sup> AVC	Ammonium Acryloyldimethyltaurate/VP Copolymer	0.45
Sharomix™ EG10	Phenoxyethanol (and) Ethylhexylglycerin	0.95
		100.00

### Procedure

1. Begin by adding water and glycerin to main vessel with propeller mixing, begin heating to  $75-80^\circ$ C.

2. Slowly add Soltellus 2501L to main vessel, continue mixing and heating.

3. In side vessel combine avobenzone and EnSense Silk ALB, begin mixing and heating to 35-40°C.

4. When avobenzone is fully disolved add homosalate, octocrylene, and octyl salicylate to same side vessel, begin mixing and heating to 75-80°C.

5. Add Biobase S to same side vessel, continue mixing and heating to 75-80°C.

6. When side vessel is at temperature and homogeneous add to main vessel while propeller mixing, remove from heat, begin cooling.

7. When temperature reaches  $55^{\circ}$ C add Aristoflex AVC slowly to main vessel while mixing, batch will thicken.

8. When batch is homogeneous add Sharomix EG10 to main vessel, continue mixing and allow to cool.

9. Adjust pH of batch to 6.0-6.5.

10. When batch reaches 35°C shutdown, pour into suitable containers.

## **Technical Specifications**

Parameter	Value	1
pH (as is)	6.00-6.50	
Viscosity (cPs)	15,000-20,000	

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