

Formulation

Name	PREMIUM, SULFATE-FREE CONDITIONING SHAMPOO	
No.	1111	
Description	This formulation is made with all naturally-derived surfactants and provides good foam and conditioning properties.	
Formulation	INGREDIENTS:	<u>% by Weight</u> <u>Functionality</u>
	ALPHA-STEP® PC-48	27.00 Primary Surfactant
	AMPHOSOL® CDB-HP	15.00 Secondary Surfactant
	STEPAN-MILD® L3	0.50 Conditioning Agent
	STEPAN® SLL-FB	0.50 Foam Booster
	Hydrocoll EN-55 (Arch Chemical) Hydrolyzed Collagen	0.25 Conditioning Agent
	Flax Extract 130 (Natunola) Linium Usitatissium Extract	0.25 Conditioning Agent
	Mackernium 007 (Solvay) Polyquaternium-7	2.84 Conditioning Agent
	Panthenol (50%) (DSM) Panthenol	0.25 Conditioning Agent
	HALLSTAR EGMS (Hallstar) Glycol Monostearate	0.25 Pearlescent Agent
	Fragrance	0.10 Additive
	Dye	q.s. Additive
	Preservative	q.s. Preservative
	Citric Acid (25% Solution)	q.s. pH Adjuster
	Deionized Water	q.s. to 100.00 Carrier
	Total	100.00
Procedure	<ol style="list-style-type: none"> 1. In a suitable vessel equipped with heating and agitation capabilities, charge Deionized Water. 2. Begin heating water and add ALPHA-STEP® PC-48, AMPHOSOL® CDB-HP, STEPAN-MILD® L3, STEPAN® SLL-FB, and Glycol Monostearate using moderate agitation. Continue to heat to 60°C–65°C. Mix for at least 30 minutes until all materials are dissolved. 3. Begin cooling to 40°C and adjust mixing to minimize aeration. At 40°C, add Mackernium 007, Hydrocoll EN-55, Flax Extract, and Panthenol with continued mixing. 4. Cool batch to 25°C. Adjust pH with Citric Acid (25% solution). 5. Add Preservative, Dye, and Fragrance as desired. 	
Physical Properties	Appearance at 25°C	Pearlized viscous liquid
	pH, as is	5.0–5.5
	Viscosity at 25°C, cps	5,500–6,500
Storage/Stability	4 weeks at 25°C	Stable
	4 weeks at 5°C	Stable
	4 weeks at 50°C	Stable
	Freeze/Thaw 3 cycles	Stable
Instructions for Use	Apply the product on wet hair. Lather, then rinse thoroughly.	
	Mild conditioning shampoo. Can be used daily.	
External Comment	Marketing Notes: Sulfate-Free means containing no alcohol sulfate or alcohol ether sulfate per the	

INCI nomenclature. Naturally-derived is defined as surfactants sourced from plant, animal or marine feedstocks. BCI = 87. Total Biorenewable Carbon Index (BCI) was calculated only for the Stepan surfactants used in this formulation. For further information on Stepan's BCI, visit www.stepan.com.

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Assistance

For applications or product handling assistance, call our Technical Service Department at 1-800-745-7837 (U.S.) or 011-334-76-505-100 (Europe).
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