

Formulation

Name	SILICONE-FREE HAIR CONDITIONER WITH MORINGA OIL	
No.	1264	
Description	This silicone-free hair conditioner contains natural oil and improves the gloss and texture of the hair. The incorporation of STEPAN-MILD® L3 softens without the need for synthetic silicones, while AMMONYX® CETAC-30 and STEPANQUAT® ML condition and impart static control.	
Formulation	INGREDIENTS:	<u>% by Weight</u> <u>Functionality</u>
	=== Phase 1 === Deionized Water	q.s. to 100.0 Carrier
	=== Phase 2 === STEPANQUAT® ML AMMONYX® CETAC-30 HALLSTAR® CO-1695 (Hallstar) Cetyl Alcohol HALLSTAR® CO-1895 (Hallstar) Stearyl Alcohol BRIJ S20-SO-(AP) (Croda) Steareth-20 STEPAN-MILD® L3 Moringa Oil (Princeton Chemicals, Inc.)	1.0 Conditioning Agent 3.3 Conditioning Agent 2.0 Bodifying Agent 2.0 Bodifying Agent 0.5 Emulsifier 2.0 Emollient 0.1 Emollient
	=== Phase 3 === Fragrance #6117451 (Bell Flavors & Fragrances) Citric Acid, 50% Solution Preservative Dye	0.5 Fragrance q.s. pH Adjuster q.s. Preservative q.s. Dye
	Total	100.0
Procedure	<ol style="list-style-type: none"> 1. In a vessel equipped with heating and agitation capabilities, charge Deionized Water. 2. Heat to 70 °C-75 °C (158 °F-167 °F) with mixing. 3. Add Phase 2 ingredients with continuous mixing. Mix until homogenous. Continue to mix for 30 minutes. 4. Cool batch slowly down to 40°C (104 °F) with mixing. 5. Add Fragrance. 6. Adjust pH to 3.5-4.0 with 50% Citric Acid Solution. 7. Add dye and preservative. 	
Physical Properties	Appearance at 25 °C pH, as-is Viscosity at 25 °C, cps	White, viscous, lotion-like liquid 3.5-4.0 8-10,000
Storage/Stability	4 weeks at 5°C 4 weeks at 25°C 4 weeks at 45°C Freeze/Thaw, 3 cycles	Stable Stable Stable Passes
Instructions for Use	After shampooing, massage conditioner through wet hair. Rinse thoroughly after 1 to 3 minutes.	

External
Comment

Marketing Notes: This formulation does not contain any silicone. BCI = 43. Total Biorenewable Carbon Index (BCI) was calculated only for the Stepan surfactants used in this formulation. Other ingredients were not evaluated. For further information on Stepan's BCI, visit www.stepan.com.

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Additional
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).
For ordering assistance, call our Account Service Department at 1-800-457-7673.

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