


Formulation

Name	BEARD CONDITIONER	
No.	1148	
Description	Keep your beard feeling soft and touchable with this moisturizing beard conditioner that uses naturally-derived emollients and conditioning agents.	
Formulation	INGREDIENTS:	<u>% by Weight</u> <u>Functionality</u>
	=== Phase 1 ===	
	Deionized Water	q.s. to 100.00 Diluent
	Structure ZEA (Akzo NobelSurface Chemistry) Hydroxypropyl	3.00 Rheology Modifier
	Starch Phosphate	2.00 Conditioning Agent
	STEPANQUAT® ML	2.00 Bodifying Agent
	CO-1695 (The Hallstar Company) Cetyl Alcohol	2.00 Bodifying Agent
	CO-1895 (The Hallstar Company) Stearyl Alcohol	2.00 Emollient
	STEPAN-MILD® L3	
	=== Phase 2 ===	
	Deionized Water	5.00 Diluent
	Potassium Chloride	0.50 Stabilizer
	=== Phase 3 ===	
	Citric Acid, 50% solution	q.s. pH Adjuster
	=== Phase 4 ===	
	Kathon CG (Dow DuPont, Inc.) Methylchloroisothiazolinone and Methylisothiazolinone	0.05 Preservative
	Total	100.00
Procedure	<ol style="list-style-type: none"> 1. In a suitable vessel equipped with heating and agitation capabilities, charge Deionized Water and begin mixing. 2. Sprinkle in Structure ZEA. Mix until dispersed. 3 Adjust pH to 4.0-4.54 using a 50% solution of Citric Acid. 4. Heat to 158°F–167°F (70°C–75°C). 5. Add STEPANQUAT® ML, Cetyl Alcohol, Stearyl Alcohol, STEPAN-MILD® L3. Mix for 30 minutes. 6. Cool to 113°F (45°C). 7. In a small beaker, dissolve Potassium Chloride in Deionized Water. Then add to the batch with mixing. 8. Adjust pH to 3.5–4.5 with a 50% solution of Citric Acid. 9. Cool to room temperature. 10. Add Kathon GC with mixing. 	
Physical Properties	Appearance, as is	Off-white lotion
	pH at 25°C, as is	3.5–4.5
	Viscosity at 25°C (RVT Sp. B at 10 rpm), cps	10,000–12,000
Storage/	4 weeks at 5°C	Stable

Stability	4 weeks at 25°C 4 weeks at 40°C Freeze/Thaw 3 cycles	Stable Stable Pass
Instructions for Use	After shampooing, massage conditioner through hair. Rinse thoroughly after 1 to 3 minutes.	
External Comment	Salon Half-Head Panel Study results indicate this formula outperformed the formulation without STEPAN-MILD® L3.	
Registered Trademarks of Stepan Company	Marketing Notes: Naturally-derived is defined as surfactants sourced from plant, animal or marine feedstocks. BCI = 84. 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 .	
For Additional Assistance	STEPANQUAT® STEPAN-MILD®	
	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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