




Formulation

Name	VOLUMIZING, REFRESHING SHAMPOO WITH STEPANBLEND® FSB-ND AND MENTHOL	
No.	1255	
Description	With the anionic/amphoteric/nonionic surfactant blend STEPANBLEND® FSB-ND as chassis, this formulation also includes Pencare™ DP 1015, Dow Corning® 5-7113 Silicone Quat Microemulsion, and STEPAN-MILD® GCC for a high-foaming shampoo imparting noticeable hair volume benefits. Menthol and Peppermint Oil provide a refreshing, invigorating scent.	
Formulation	INGREDIENTS:	% by Weight Functionality
	=== Phase 1 ===	
	Deionized Water	q.s. to 100 Carrier
	PenCare™ DP 1015 (Ingredient) - Starch	0.10 Conditioning Agent
	Hydroxypropyltrimonium Chloride	40.00 Surfactant Blend
	STEPANBLEND® FSB-ND	0.25 Cleansing/Skin Feel
	STEPAN-MILD® GCC	0.10 Fragrance
	dl-Menthol	0.10 Fragrance
	Peppermint Oil	0.50 Viscosity Modifier
	Sodium Chloride	1.00 Conditioning Agent
	Dow Corning® 5-7113 Silicone Quat Microemulsion (Dow Corning)	0.16 Dye
	Blue #1 (0.1% solution)	0.04 Preservative
	Kathon™ CG (Dow Chemical) - CIT/MIT	
	=== Phase 2 ===	
	Citric Acid (50% solution)	q.s. pH Modifier
	Sodium Hydroxide (50% solution)	q.s. pH Modifier
	Total	100.00
Procedure	<ol style="list-style-type: none"> 1. Charge water into a clean, tared vessel and start moderate agitation. 2. Slowly disperse PenCare™ DP 1015. Mix for 20 minutes. 3. Add STEPANBLEND® FSB-ND and then STEPAN-MILD® GCC. Mix well. 4. Add dl-Menthol and Peppermint Oil. Mix for at least 20 minutes. 5. Add Sodium Chloride. 6. Add the Dow Corning® 5-7113 Silicone Quat Microemulsion. Mix well. 7. Add the Blue #1 (0.1% solution) and Kathon™ CG. Mix well. 8. Adjust pH to 5.5-6.5 with either Citric Acid or sodium hydroxide solutions to target pH. Adjust with additional sodium chloride for higher viscosity. 	
Physical Properties	Appearance, as is	Teal, translucent liquid
	Odor	Minty
	pH, as is	5.5-6.5
	Viscosity at 20 °C, cps (Brookfield LVT, spindle 3, speed 12)	3,500-6,000
Storage/Stability	25 °C at 2 months	Stable
	4 °C at 2 months	Stable

	45 °C at 2 months Freeze/thaw 3 cycles	Stable Passes
Instructions for Use	Apply to wet hair and work into a lather. Rinse. Repeat as desired.	
External Comment	Stepan's salon Half-head test (n=6) was completed against a commercial volumizing shampoo.	
Registered Trademarks of Stepan Company	Marketing Notes: BCI = 73. 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 .	
Registered Trademarks of Stepan Company	STEPAN-MILD® STEPANBLEND®	
For 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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