



Formulation

Name	CLEAR, COLORLESS SHAMPOO	
No.	643	
Description	This colorless liquid makes an excellent shampoo with good foaming and rinseability. The formulation may also be used in bubble bath and hand soap applications.	
Formulation	INGREDIENTS:	<u>% by Weight</u>
	=== Phase 1 ===	
	Deionized Water	q.s. to 100.0
	STEPAN-MILD® LSB	24.00
	STEOL® CS-230	15.40
	NINOL® 96-SL	2.00
	=== Phase 2 ===	
	Fragrance, Preservative	q.s.
	=== Phase 3 ===	
	Citric Acid	q.s.
	Sodium Chloride	q.s.
	Total	100.0
Procedure	Combine ingredients in Phase 1 in a container and heat to 165 °F with mixing. When system is uniform, with mixing, cool to 110 °F, add Preservative and Fragrance. Adjust pH to 5.5 with Citric Acid. Adjust viscosity with Sodium Chloride.	
Physical Properties	Appearance, 25°C	Clear, colorless liquid
	pH, as is	5.5
	Viscosity:	
	with 0.50% NaCl, cps	2900
	with 0.75% NaCl, cps	7200
	with 1.0% NaCl, cps	9400
Storage/Stability	6 weeks at 40 °F	Stable
	6 weeks at 110 °F	Stable
	6 weeks at 120 °F	Stable
	3 freeze/thaw cycles	Pass
Instructions for Use	Wet hair, lather, and rinse.	
Registered Trademarks of Stepan Company	STEPAN-MILD® STEOL® NINOL®	
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.	

Nothing contained herein grants or extends a license, express or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the works of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. The manufacturer shall not be liable (regardless of fault) to the vendee's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of such information.



Stepan Company
Northfield, Illinois 60093
Telephone (847) 446-7500

Revision Date: 04/20/2007 Origination Date: 09/21/1998 © 2007, Stepan Company. All rights reserved.