



# Formulation

Name	<b>SILICONE-FREE MEN'S CONDITIONING SHAMPOO &amp; BODY WASH WITH NINOL® CAA</b>	
No.	1250	
Description	This highly fragranced formulation utilizes STEPAN-MILD® L3 to provide a light conditioning effect without silicones. The addition of NINOL® CAA not only solubilizes the fragrance, but also provides viscosity building without the addition of traditional salt systems.	
Formulation	<b>INGREDIENTS:</b>	<b>% by Weight    Functionality</b>
	=== Phase 1 ===	
	Deionized Water	q.s. to 100.0 Carrier
	STEPANOL® WA-EXTRA HP	32.0 Primary Surfactant
	STEOL® CS-270 C (or STEOL® CS-270 PLUS)	5.9 Primary Surfactant
	AMPHOSOL® HCG (or AMPHOSOL® HCG-HP)	3.0 Secondary Surfactant
	STEPAN-MILD® L3	0.5 Conditioning Agent
	=== Phase 2 ===	
	NINOL® CAA	3.0 Viscosity Builder, Solubilizer
	Fragrance	1.0 Fragrance
	=== Phase 3 ===	
	Citric Acid, 50% solution	q.s. pH Adjuster
	Sodium Hydroxide, 50% solution	q.s. pH Adjuster
	Preservative	q.s. Preservative
	Dye	q.s. Dye
	<b>Total</b>	<b>100.0</b>
Procedure	<ol style="list-style-type: none"> <li>In a suitable vessel equipped with agitation and heating/cooling, charge the Deionized Water, STEPANOL® WA-EXTRA HP, STEOL® CS-270 C (or STEOL® CS-270 PLUS), and AMPHOSOL® HCG (or AMPHOSOL® HCG-HP). Mix until homogeneous.</li> <li>Heat to 50°C, then add STEPAN-MILD® L3. Mix until clear and homogeneous.</li> <li>In a separate vessel, pre-mix the NINOL® CAA and Fragrance.</li> <li>Add the pre-mix to the batch and mix until clear and homogeneous.</li> <li>Adjust pH to 5-6 with either Citric Acid, 50% solution or Sodium Hydroxide, 50% solution and begin to cool.</li> <li>Once cooled to room temperature, add Preservative and Dye.</li> </ol> <p>**While this formulation provides a starting point, it is up to the end manufacturer to ensure their formulations and products meet all application regulations, including the New York 1,4-dioxane concentration limits.</p>	
Physical Properties	Appearance at 25°C	Clear, viscous liquid
	pH, as is	5 - 6
	Viscosity at 25°C, cps	4,000 - 6,000
Storage/ Stability	4 weeks at 25°C	Stable
	4 weeks at 45°C	Stable
	Freeze/Thaw, 3 cycles	Passes

External  
Comment

Marketing Notes: NINOL® CAA is a multifunctional secondary surfactant that is naturally-derived (derived from plant, animal or marine sources). Silicone-free is defined as this formulation does not contain silicone or silicone containing compounds. BCI = 90. 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](http://www.stepan.com). STEOL® CS-270 PLUS has a maximum residual 1,4-dioxane level of 10 ppm on an as-supplied basis.

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Assistance

For applications or product handling assistance, call our Technical Service Department at 1-800-745-7837 (U.S.) or +33 476 505 100 (Europe).  
For ordering assistance, call our Account Service Department at 1-800-457-7673.

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