



# Formulation

Name	<b>NATURALLY-DERIVED SULFATE-FREE MOISTURIZING SHAMPOO AND BODY WASH</b>	
No.	1119	
Description	This shampoo and body wash is formulated with naturally-derived surfactants and provides good foam and conditioning properties. This product is gentle enough for permed or color-treated hair.	
Formulation	<b>INGREDIENTS:</b>	<b><u>% by Weight</u>   <u>Functionality</u></b>
	Deionized Water	q.s. 100.00 Diluent
	STEPAN-MILD® LSB	40.00 Primary Surfactant
	AMPHOSOL® CS-50	6.00 Secondary Surfactant
	STEPAN-MILD® GCC	0.50 Conditioning Agent
	STEPAN-MILD® L3	0.50 Emollient
	Panthenol (BASF)	0.50 Conditioning Agent
	Citric Acid, 50% aq. Solution	q.s. pH Adjuster
	Sodium Hydroxide, 50% solution	q.s. pH Adjuster
	Sodium Chloride	q.s. Viscosity Adjuster
	Fragrance, Dye and Preservative	q.s. Additives
	<b>Total</b>	<b>100.00</b>
Procedure	<ol style="list-style-type: none"> <li>1. In a suitable vessel equipped with heating and agitation capabilities, charge Deionized Water.</li> <li>2. Start heating water to 40°C–45°C.</li> <li>3. Add STEPAN-MILD® LSB, AMPHOSOL® CS-50, STEPAN-MILD® GCC, and STEPAN-MILD® L3 using moderate agitation. Mix for at least 30 minutes until everything is completely dissolved.</li> <li>4. Add Panthenol with continued mixing.</li> <li>5. Cool the batch to 25°C.</li> <li>6. Adjust pH with Citric Acid or Sodium Hydroxide, if necessary. Adjust viscosity with Sodium Chloride, if necessary.</li> <li>7. Add Preservative, Dye, and Fragrance, as desired.</li> </ol>	
Physical Properties	Appearance, as is	Clear viscous liquid
	pH at 25°C, as is	5.0–5.5
	Viscosity at 25°C LVT #3 at 12 rpm (cps)	3,000–7,000
Storage/ Stability	4 weeks at 5°C	Stable
	4 weeks at 25°C	Stable
	4 weeks at 45°C	Stable
	Freeze/Thaw 3 cycles	Pass
Instructions for Use	Apply to hair and body. Lather, then rinse thoroughly. Repeat if desired. Use daily.	
External Comment	Marketing Notes: BCI = 66%. Total BCI (Biorenewable Carbon Index) was calculated only for the Stepan surfactants in this formulation. For more information on Stepan's BCI guide, visit	

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Revision Date:      Publication Date: 12/11/2009    © 2010, Stepan Company. All rights reserved.