



# Formulation

Name	<b>MILD, SULFATE-FREE BABY AND TODDLER WASH</b>	
No.	1249	
Description	This formulation with STEPANBLEND® FF40 and Alkyl Polyglucosides is a clear wash that can be used on a baby's or toddler's hair and entire body.	
Formulation	<b>INGREDIENTS:</b>	<b><u>% by Weight</u>   <u>Functionality</u></b>
	Deionized Water	q.s. to 100.0 Carrier
	STEPANBLEND® FF40	25.5 Surfactant Blend
	Plantaren 818 UP (BASF) Coco Glucoside	4.0 Secondary Surfactant
	STEPAN-MILD® GCC	0.5 Conditioning Agent
	Preservative	q.s. Preservative
	Fragrance	q.s. Fragrance
	Citric Acid, 50% solution	0.4 pH Adjuster
	Sodium Chloride	0.4 Viscosity Adjuster
	<b>Total</b>	<b>100.0</b>
Procedure	<ol style="list-style-type: none"> <li>1. To a suitable container, add Deionized water and begin to heat and mix.</li> <li>2. At 30°C-35°C, add STEPANBLEND® FF40 and continue to mix.</li> <li>3. Add Plantaren 818 UP and continue to mix.</li> <li>4. Add STEPAN-MILD® GCC and continue to mix.</li> <li>5. Add preservative and fragrance as desired, with mixing.</li> <li>6. Add Citric Acid, 50% solution and Sodium Chloride with mixing. Continue to mix for 10-15 minutes until incorporated, then begin to cool.</li> <li>7. Adjust pH to 5.0-6.0 with additional Citric Acid, 50% Solution as needed.</li> <li>8. Adjust viscosity as needed with Sodium Chloride.</li> </ol>	
Physical Properties	Appearance at 25°C	Clear liquid
	pH, as is	5.0 - 6.0
	Viscosity at 25°C, cps	3,000 - 7,000
Storage/Stability	2 months at 25°C	Stable
	2 months at 4°C	Stable
	2 months at 45°C	Stable
	Freeze Thaw, 3 cycles	Passes
Instructions for Use	Apply to shampoo to the baby's or toddler's hair and skin using the hands or a washcloth. Lather and rinse with water.	
External Comment	<p>Marketing Notes: Sulfate-free is defined as not containing Alcohol sulfate or Alcohol ether sulfate as per INCI nomenclature. This definition does not include the inorganic sulfates, e.g. Sodium sulfates, used as processing aids or formed as a residual, impurity or by-product. Zein score of STEPANBLEND® FF40 is 25 and Plantaren 818 UP (BASF) Coco Glucoside is 16, both of which contribute to the mildness of the formulation. STEPANBLEND® FF40 does not contain any sulfated surfactants, Diethanolamine (DEA), 1,4-dioxane, or Ethylene Oxide (EO) or preservatives. Also, this formulation does not contain any sulfated surfactants, Diethanolamine (DEA) or Ethylene</p>	

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Assistance

Oxide (EO).

STEPAN-MILD®  
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