

# Formulation

Name	<b>STRUCTURED LIQUIDS TECHNOLOGY – DETOXIFYING SCALP SCRUB WITH MAPROSYL® 30-MP</b>	
No.	1422	
Description	Struggling with flat roots? It could be due to the buildup of product and oil. This shampoo-scrub hybrid uses apricot seed powder to exfoliate the scalp with gentle, sulfate-free cleansers to remove the buildup. Better yet, add whatever feel-good ingredients you like – this formulation is easy to customize! This formulation is suitable for the Asia Pacific region.	
Formulation	<b>INGREDIENTS:</b>	<b>% by Weight    Functionality</b>
	=== Phase 1 ===	
	MAPROSYL® 30-MP	8.80 Surfactant
	STEPAN-MILD® GCC	10.60 Structure Agent
	Glycerin	2.00 Humectant
	NINOL® CAA	2.00 Secondary Surfactant
	Fragrance	0.25 Fragrance
	=== Phase 2 ===	
	Deionized Water	q.s. to 100.0 Diluent
	Sodium Benzoate (Sinopharm)	0.50 Preservative
	=== Phase 3 ===	
	Lipo™ APS 40/60 (Vantage Specialty Chemicals) Apricot Seeds Powder	0.50 Exfoliating Additive
	=== Phase 4 ===	
	Citric Acid (50% Solution)	q.s. pH Adjuster
	<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, melt STEPAN-MILD® GCC.</li> <li>2. Charge MAPROSYL® 30-MP, NINOL® CAA, Glycerin and Fragrance and stir gently using a Jiffy mixer until a homogeneous thin lamellar phase is obtained. Avoid aeration. Continue to mix and heat to 65°C (149°F).</li> <li>3. For phase 2, charge Deionized Water and Sodium Benzoate in a separate vessel. Heat to 65°C (149°F).</li> <li>4. Slowly add phase 2 to phase 1. Mix using a high-shearing mixer until the lamellar phase completely dissolves and the formulation thickens.</li> <li>5. Cool to room temperature.</li> <li>6. De-aerate the mixture, if necessary (e.g. using vacuum de-aerator, centrifugation).</li> <li>7. Add Lipo™ APS 40/60 using gentle agitation to avoid introducing air into the mixture.</li> <li>8. Adjust pH with a Citric Acid 50% Solution using a gentle agitation to avoid introducing air into the mixture.</li> </ol>	
Physical Properties	Appearance at 25°C	Light brown, flowable suspension
	pH, as is	5.5 - 6.5
	Viscosity at 25°C, cps (LVT Spindle 3 at 12 RPM)	5,000 - 9,000

Storage/ Stability	12 weeks at 4°C	Stable
	12 weeks at 25°C	Stable
	12 weeks at 45°C	Stable
	Freeze/Thaw 3 cycles	Pass
Instructions for Use	Use as a shampoo: Make sure hair is thoroughly wet, and apply directly onto your scalp. Gently massage into a lather, then rinse thoroughly. Use 1 time a week, or as needed. Follow with your favorite conditioner.	
	Cleanses, detoxifies, and removes buildup on scalp. Rinses clean and leaves scalp feeling refreshed.	
External Comment	Marketing Notes: BCI = 93. Total Biorenewable Carbon Index (BCI) was calculated only for the Stepan surfactants used in this formulation. Other non-Stepan ingredients were not evaluated. For further information on Stepan's BCI, visit <a href="http://www.stepan.com">www.stepan.com</a> . Sulfate free is defined as containing no alcohol sulfate or alcohol ether sulfate, per the INCI nomenclature.	
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