



# Formulation

Name	<b>CLEAR LIQUID HAND SOAP</b>	
No.	389	
Description	This liquid hand soap provides good cleansing and foaming.	
Formulation	<b>INGREDIENTS:</b>	<b>% by Weight</b>
	=== Phase 1 ===	
	Deionized Water	q.s. to 100.0
	BIO-TERGE® AS-40 (or BIO-TERGE® AS-40 HP)	15.4
	STEOL® CS-460	9.0
	AMPHOSOL® CA	4.0
	NINOL® 40-CO	1.0
	=== Phase 2 ===	
	Citric Acid	q.s.
	Fragrance, Dye, & Preservative	q.s.
	Sodium Chloride	q.s.
	<b>Total</b>	<b>100.0</b>
Procedure	<ol style="list-style-type: none"> <li>1. Add the components in Phase 1 to Deionized Water and blend until clear.</li> <li>2. Adjust pH to 5.5-6.5 with Citric Acid.</li> <li>3. Add Fragrance, Dye, and Preservative, if desired.</li> <li>4. Adjust to desired viscosity with Sodium Chloride.</li> </ol> <p>*Note: When formulating with BIO-TERGE® AS-40 HP, a greater amount of Citric Acid may be needed to adjust the pH within the recommended range as noted, than when formulating with BIO-TERGE® AS-40.</p>	
Physical Properties	Appearance, as is	Light yellow liquid
	pH, as is	5.5-6.5
	Viscosity, cps	
	0.0% Sodium Chloride	25
	0.5% Sodium Chloride	25
	1.0% Sodium Chloride	50
	3.0% Sodium Chloride	800
Storage/Stability	3 months at 25°C	Stable
	1 month at 42°C	Stable
	1 month at 50°C	Stable
	Freeze/thaw, 1 cycle	Pass
Instructions for Use	Apply to wet hands, lather, and rinse.	
External Comment	Marketing Notes: AMPHOSOL® HCA-HP may be a potential substitute for AMPHOSOL® CA. It should be noted that stability testing using this AMPHOSOL® HCA-HP has not been completed on this formulation, and in addition to the pH adjustment taking a greater amount of Citric Acid, the substitution may also yield slightly different physical properties.	
Registered	BIO-TERGE®	

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NINOL®  
AMPHOSOL®

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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).  
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