



Formulation

Name	LIQUID HAND SOAP	
No.	149	
Description	This formulation is an all-purpose liquid hand soap formulated without Diethanolamide (DEA Amide).	
Formulation	INGREDIENTS:	<u>% by Weight</u>
	=== Phase 1 ===	
	Deionized Water	q.s. to 100.0
	BIO-TERGE® AS-40 (or BIO-TERGE® AS-40 HA)	10.00
	STEPANOL® AM	8.74
	STEPANOL® WAT	6.25
	NINOL® M10	3.00
	=== Phase 2 ===	
	Citric Acid	q.s.
	Fragrance, Dye, & Preservative	q.s.
	Sodium Chloride	q.s.
	Sodium Hydroxide	q.s.
	Total	100.0
Procedure	<ol style="list-style-type: none"> Combine all components in Phase 1 and mix until homogeneous. Adjust pH to 5.5 - 6.5 with Citric Acid. Add Fragrance, Dye, and Preservative, if desired. Adjust to desired viscosity with Sodium Chloride and pH with Citric Acid or Sodium Hydroxide. <p>*Note: When formulating with BIO-TERGE® AS-40 HA, 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	Clear yellow liquid
	pH, as is	5.5-6.5
	Viscosity Profile:	
	0.0% Sodium Chloride, cps	10
	2.0% Sodium Chloride, cps	430
	3.0% Sodium Chloride, cps	2300
Storage/ Stability	2 weeks at 50°C	Stable
	Freeze/Thaw, 3 cycles	Pass
Instructions for Use	Apply to wet skin, lather and rinse.	
	<p>01/19/17: Stability testing information noted above was for this formulation containing BIO-TERGE® AS-40. BIO-TERGE® AS-40 HA, an excess alkalinity preserved surfactant of the same chemistry, can be substituted into this formulation. Based on chemistry, Personal Care R&D does not anticipate that the stability or performance of the formulation will be altered by using BIO-TERGE® AS-40 HA, however it should be noted that a greater amount of Citric Acid may be needed to reach the pH target (compared to the amount needed when formulating with BIO-TERGE® AS-40).</p>	
External	Marketing Notes: This formulation does not contain Cocamide DEA or other DEA Amides.	

Comment | STEPANOL® WAT-K may be a potential substitute for STEPANOL® WAT in this formulation. It should be noted that stability testing using this STEPANOL® WAT-K has not been completed for this formulation. The substitution may yield slightly different physical properties.

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Stepan Company
Northfield, Illinois 60093
Telephone (847) 446-7500

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