



# Formulation

Name	<b>ULTRA HAND DISHWASHING DETERGENT</b>	
No.	173	
Description	Ultra hand dishwashing detergent derived from oleochemical resources that are biodegradable	
Formulation	<b>INGREDIENTS:</b>	<b><u>% by Weight</u></b>
	Deionized Water	6.9
	ALPHA-STEP® MC-48	56.0
	STEOL® CS-330	30.0
	NINOL® 30-LL	5.6
	Sodium Chloride	1.5
	<b>Total</b>	<b>100.0</b>
Procedure	Charge water. Add ALPHA-STEP® MC-48 and STEOL® CS-330 and mix. Add NINOL® 30-LL or 40-CO and mix until homogeneous. Slowly add Sodium Chloride to thicken. Mix until clear. Adjust pH with sulfuric acid or sodium hydroxide as necessary.	
Physical Properties	Appearance at 25°C	Clear yellow liquid
	pH, as is	6.5–7.5
	Viscosity at 25°C, cps	220
	Solids, %	39–40
	Density, lbs/gal.	8.8
	Flash point, °F	>200
Storage/ Stability	Freeze/thaw, 3 cycles	Pass
	Storage at 4°C, 2 weeks	Pass
Instructions for Use	NOTE: NINOL 40-CO (Cocamide DEA) can be substituted for NINOL® 30-LL ( Lauryl Diethanolamide). Squirt small amount into sink and fill with warm/hot water.	
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For 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). For ordering assistance, call our Account Service Department at 1-800-457-7673.	
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Stepan Company

Northfield, Illinois 60093  
Telephone (847) 446-7500

Revision Date: 01/08/2010    Publication Date: 08/17/2008    © 2010, Stepan Company. All rights reserved.