



## Formulation

Name	<b>PREMIUM NATURALLY DERIVED LIQUID DISH DETERGENT</b>	
No.	1354	
Description	More suitable to those formulators looking to use naturally derived surfactants, this formulation is 75% naturally derived. All Stepan ingredients noted in the formulation are eligible for U.S. EPA Safer Choice certification. Contact Stepan for further information.	
Formulation	<b>INGREDIENTS:</b>	<b><u>% by Weight</u>   <u>Functionality</u></b>
	Deionized Water	q.s. to 100 Carrier
	STEPANOL® WA-EXTRA HP	60.00 Primary Surfactant
	STEPANATE® SXS	7.80 Hydrotrope
	SDA-40B (190 proof)	1.00 Viscosity Adjuster
	STEOL® CS-270 C (or STEOL® CS-270 PLUS)	8.57 Primary Surfactant
	AMMONYX® LO	20.00 Secondary Surfactant
	Citric Acid	q.s. pH Adjuster
	Preservative, Dye, and Fragrance	q.s. Additives
	<b>Total</b>	
Procedure	<ol style="list-style-type: none"><li>1. Charge Deionized Water and add the STEPANOL® WA-EXTRA HP while mixing.</li><li>2. Add the STEPANATE® SXS and SDA-40B and mix until homogeneous.</li><li>3. Slowly add the STEOL® CS-270 C (or STEOL® CS-270 PLUS) and mix until homogeneous.</li><li>4. Add the AMMONYX® LO and mix until homogeneous. Check the pH.</li><li>5. Use Citric Acid to adjust the pH to between 7.5 - 9.5.</li><li>6. Add preservative, dye, fragrance and other additives and mix until homogeneous.</li></ol> <p>**While this formulation provides a starting point, it is up to the end manufacturer to ensure their formulations and products meet all application regulations, including the New York 1,4-dioxane concentration limits.</p>	
Physical Properties	Appearance at 25°C	Clear Liquid
	pH, as is	7.5 - 9.5
	Viscosity at 25°C, cps	750 - 1250
	Density at 25°C, g/mL	1.039
	Flash Point (PMCC), °C	>110
	Solids, weight %	34.0
Storage/ Stability	Freeze/Thaw (2 cycles)	Pass
	4 weeks at 4°C	Pass
	4 weeks at Room Temperature	Pass
	4 weeks at 40°C	Pass
Instructions for Use	Squirt a small amount of detergent into sink and fill sink with warm/hot water. Alternatively, squirt a small amount of detergent onto damp sponge or washcloth.	
External Comment	Marketing Notes: STEOL CS-270 PLUS has a maximum residual 1,4-dioxane level of 10 ppm on an as-supplied basis. AMMONYX® LO, STEOL® CS-270 C, STEPANATE® SXS, STEPANOL® WA-EXTRA HP are currently listed on Cleangredients.org and meet the U.S. EPA Safer Choice	

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For applications or product handling assistance, call our Technical Service Department at 1-800-745-7837 (U.S.) or +33 476 505 100 (Europe).

For ordering assistance, call our Account Service Department at 1-800-457-7673.

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