



Formulation

Name	ECONOMY LIQUID DISH DETERGENT WITH SLS/SLES-3/LAURAMINE OXIDE	
No.	1188	
Description	This economy liquid dish detergent (LDL) contains no Cocamide DEA surfactants. It is composed of two primary surfactants, STEPANOL® WA-EXTRA (Sodium Lauryl Sulfate or SLS) and STEOL® CS-460 (Sodium Laureth Sulfate with 3 moles Ethylene Oxide or SLES-3), and one secondary surfactant, AMMONYX® LO (Lauramine Oxide).	
Formulation	INGREDIENTS:	% by Weight Functionality
	Deionized Water	69.01% Diluent
	STEPANOL® WA-EXTRA	17.24% Primary Surfactant
	STEOL® CS-460	8.33% Primary Surfactant
	AMMONYX® LO	3.67% Secondary Surfactant
	Sodium Chloride	1.75% Viscosity Builder
	Citric Acid or Sodium Hydroxide	q.s. pH Adjuster
	Preservative	q.s. Preservative
	Total	100.00%
Procedure	<ol style="list-style-type: none"> 1. Charge Deionized Water. 2. Add STEPANOL® WA-EXTRA and STEOL® CS-460. Mix until homogenous. 3. Add AMMONYX® LO, mixing until homogenous. 4. Slowly add Sodium Chloride to thicken. Amount of Sodium Chloride will vary depending upon the target viscosity. Mix until clear. 5. Adjust pH with Citric Acid or Sodium Hydroxide as necessary. 8. Add Preservative and mix until homogenous. 	
Physical Properties	Appearance at 25 °C	Clear liquid
	Viscosity at 25 °C, cps	400–650
	Actives, %	11.1
	Solids, %	12.9
	pH, as is	7.5–8.5
	Density, lbs/gal	8.5
	Flash Point, °F (PMCC)	>200
Storage/Stability	Freeze/Thaw (3 cycles)	Pass
	4 weeks at 4 °C	Stable
	4 weeks at 25 °C	Stable
	4 weeks at 50 °C	Stable
Instructions for Use	Squirt a small amount of detergent into sink. Fill sink with warm/hot water.	
External Comment	Marketing Notes: AMMONYX® LO is an approved ingredient on www.cleangredients.org . This formulation does not contain Nonylphenol Ethoxylates (NPEs) or Cocamide DEA.	

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

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