

# Stepan's Solution to Preservative Concerns

## Excess Alkalinity Preservation

### Customer Need:

Global safety and environmental concerns associated with traditional preservatives and preservative systems have prompted an increase in customer requests for surfactants that do not require a preservative (e.g., high active ether sulfates), have alternative preservatives, or are self-preserving.

Stepan Company has been promoting a few surfactant offerings that are self-preserved through the use of excess alkalinity, allowing formulators increased flexibility when developing their finished products.

### Definition:

Stepan defines a product to be preserved by excess alkalinity if it:

- Contains free sodium hydroxide (NaOH),
- No external preservative is added
- The efficacy is confirmed by microbial challenge testing, and
- pH is typically between 11.0 and 13.0.

### Advantages:

The many advantages with using these self-preserving surfactants include:

- Robust microbial protection
- Likely reduction in sanitization/cleaning cost and time compared to other preservatives (e.g., CIT/MIT)
- Potential reduction in Regulatory assessment time and no limitation in certification approval due to a prohibited preservative

Example: Safer Choice Certification - AMPHOSOL® HCA-HP, AMPHOSOL® HCG-HP and STEPANOL® WA-EXTRA HP are Cleangredient-approved for use as a surfactant in U.S. EPA Safer Choice-approved products.

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# Stepan Company - Excess Alkalinity Surfactants

## North America

Stepan Trade Name	INCI Name	Actives (%)	Form (25 °C)	BCI	Typical pH	Remarks
<b>BIO-TERGE® AS-40 HA</b>	Sodium C14-16 Olefin Sulfonate (AOS)	39.0	Liquid	0	11.7 (10% H <sub>2</sub> O)	Sulfate-free
<b>STEPANOL® WA-EXTRA HP</b>	Sodium Lauryl Sulfate (SLS)	30.0	Liquid	100	11.3 (10% H <sub>2</sub> O)	Cleangredient-approved
<b>AMPHOSOL® CDB-HP</b>	Cetyl Betaine	30	Liquid	78	12.0 (10% H <sub>2</sub> O)	Sulfate-free
<b>AMPHOSOL® HCA-HP</b>	Cocamidopropyl Betaine (CAPB)	31.0	Liquid	64	12.0 (as is)	Sulfate-free Cleangredient-approved
<b>AMPHOSOL® HCG-HP</b>	Cocamidopropyl Betaine (CAPB)	31.0	Liquid	64	12.0 (as is)	Sulfate-free Cleangredient-approved
<b>STEOL® CS-130 HP</b>	Sodium Laureth Sulfate (SLES-1)	25.0	Liquid	86	11.5 (10% H <sub>2</sub> O)	
<b>STEOL® CS-230 PC HP</b>	Sodium Laureth Sulfate (SLES-2)	27.5	Liquid	75	11.5 (10% H <sub>2</sub> O)	
<b>STEOL® CS-330 HP</b>	Sodium Laureth Sulfate (SLES-3)	28.5	Liquid	67	12.0 (10% H <sub>2</sub> O)	
<b>STEPANBLEND® FF40</b>	Sodium C14-16 Olefin Sulfonate (AOS), Cocamide MIPA, Cocamidopropyl Betaine	38 (solids)	Liquid	20	11.5 (10% H <sub>2</sub> O)	Sulfate-free DEA free 1,4-Dioxane/ EO free
<b>COMING SOON</b>						
<b>AMPHOSOL® LB HP</b>	Lauramidopropyl Betaine (LAPB)	TBD	Liquid	TBD	TBD	Sulfate-free

## Europe

<b>BIO-TERGE® AS-40 HASB</b>	Sodium C14-16 Olefin Sulfonate (AOS)	39.0	Liquid	0	11.7 (10% H <sub>2</sub> O)	Sulfate-free
<b>STEOL® CS-230 HA</b>	Sodium Laureth Sulfate (SLES-2)	27.5	Liquid	75	11.0 (10% H <sub>2</sub> O)	
<b>STEOL® CS-330 HA</b>	Sodium Laureth Sulfate (SLES-3)	28.0	Liquid	67	11.3 (5% H <sub>2</sub> O)	
<b>STEPANOL® WA-EXTRA-HA</b>	Sodium Lauryl Sulfate (SLS)	30.0	Liquid	100	11.3 (10% H <sub>2</sub> O)	Ecocert-approved

For more information on these surfactants, including formulation considerations and additional guidance, please contact North America Technical Service at [techserv@stepan.com](mailto:techserv@stepan.com).



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