

**Stepan**



**Personal Care**

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Specialty  
Amphoterics



**Amphoteric surfactants** are known for being mild to the skin and hair. A special class of amphoteric — amphotacetates and amphopropionates — are exceptionally mild, making them great for applications where mildness matters: baby products, gentle cleansers for sensitive skin, or soothing and calming formulations.

All of Stepan Company's Specialty Amphoteric surfactants are:



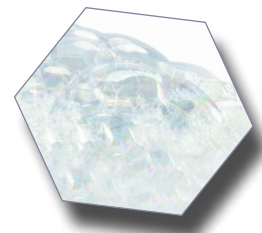
Biodegradable  
Naturally-derived from plant sources



Exceptionally mild — milder than betaines<sup>1</sup>  
Impart conditioning and softening effects to hair and skin

### AMPHOSOL<sup>®</sup> 1C Envision Performance

- Best foaming profile and viscosity building of Stepan's Specialty Amphoterics
- Milder alternative to betaines without sacrificing performance
- Minimally irritating to eyes, even at 16% active

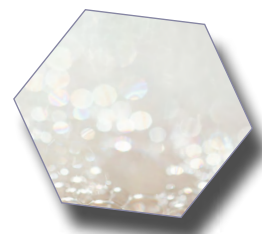


### AMPHOSOL<sup>®</sup> 2C Envision Rinsability

- Best suited for formulations where mildness and easy rinsing are desired
- Non-irritating to eyes at 5% active and non-irritating to skin at 10% active
- Application in gentle facial cleansers that won't irritate the skin and baby washes with the possibility of "no tear" claims

### AMPHOSOL<sup>®</sup> 2CSF-AF Envision Salt-Free

- Salt-free amphoteric surfactant — no residual sodium chloride or sodium sulfate
- Best suited for mild personal care applications where salt or electrolyte levels are of concern
- Stable and will foam in high electrolytic or alkaline systems
- Free of residual methanol, making it an ideal choice for California Proposition 65-free formulations

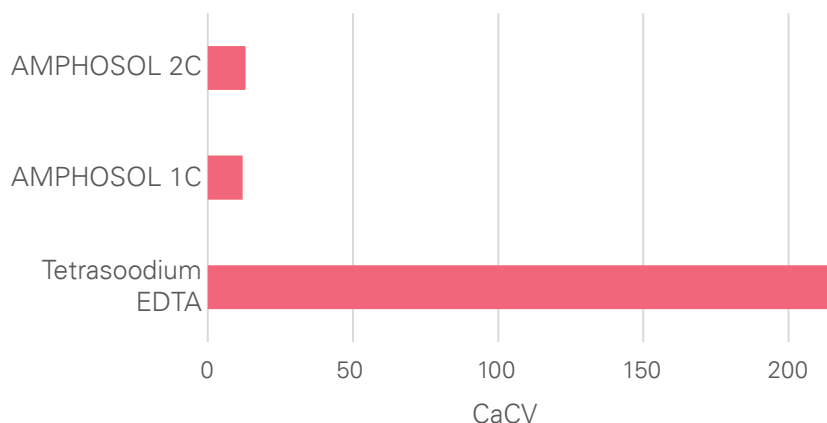


<sup>1</sup>Based on Zein score

## The “Detox” Effect

Chelants, such as EDTA<sup>2</sup>, are known for their ability to “trap” heavy metals like iron and calcium. Two of Stepan’s Specialty Amphoteric surfactants demonstrate chelation abilities, a unique characteristic for surfactants. By using either AMPHOSOL 1C or AMPHOSOL 2C, a formulator can get a boost in heavy metal trapping and possibly reduce or eliminate the use of EDTA in their formulations.

## Chelation Values of Stepan AMPHOSOL Products



The Calcium Chelation Value (CaCV) is used to compare the performance of chelants. The graph above shows the results of Stepan’s Specialty Amphoteric compared to Tetrasodium EDTA. This performance was evaluated using AATCC Test Method 149-2002 Chelating Agents: Chelation Value of Aminopolycarboxylic Acids and Their Salts; Calcium Oxalate Method.

## Foaming Body Milk

Formulation No.1277

Counter the effects of pollution and unveil clean, smooth skin with this foaming body milk that uses mild cleansers to gently remove dirt and pollutants and moisturizing coconut milk to soothe skin.



Ingredients	% by weight
STEPAN-MILD® PCL-BA	18.50
<i>Sodium Methyl 2-Sulfolaurate and Disodium 2-Sulfolaurate and Sodium Lauryl Sulfoacetate</i>	
Glycerin	6.33
Coconut Milk	0.05
AMPHOSOL HCA-HP	10.00
<i>Cocamidopropyl Betaine</i>	
<b>AMPHOSOL 2C</b>	2.90
Hallstar® EGDS (The Hallstar Company)	0.25



**For more Stepan formulations visit [www.stepan.com](http://www.stepan.com)**

<sup>2</sup> EDTA: Ethylenediaminetetraacetic acid



## Typical Properties

### AMPHOSOL 1C

**INCI Name** Sodium Cocoamphoacetate

**Appearance** Clear Liquid

**Actives** 36.5%

**Pour Point** -15°C

**Preservative** DMDM Hydantoin

### AMPHOSOL 2C

**INCI Name** Disodium Cocoamphodiacetate

**Appearance** Clear Liquid

**Actives** 38%

**Pour Point** -15°C

**Preservative** DMDM Hydantoin

### AMPHOSOL 2CSF-AF

**INCI Name** Disodium Cocoamphodipropionate

**Appearance** Clear Liquid

**Solids** 39%

**Pour Point** -12°C

**Preservative** None

For further information, contact North America Technical Service at [techserv@stepan.com](mailto:techserv@stepan.com) or (800) 745-7837.

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