

## DeTROPE CA-100

**DeTROPE CA-100** is a low foaming, anhydrous, anionic mixed amine carboxylate. It is an excellent hydrotrope for use in aqueous and powdered alkaline systems.

**DeTROPE CA-100** is an effective corrosion inhibitor for aluminum and steel in aqueous systems above pH 7.0.

### SPECIFICATIONS

Appearance @ 25° C:	Clear amber viscous liquid
Color (Gardner):	12 max.
pH (1% in D.W.):	6.2 - 7.5

**SOLUBILITY** DeTROPE CA-100 is soluble in water, alcohols and glycols. It is insoluble or dispersible in most solvents and oils.

### TYPICAL PROPERTIES

% Activity	99% min.
Density @ 25°C	~1.0 gm/ml

- Excellent anhydrous liquid hydrotrope for use in aqueous and powdered alkaline systems
- Excellent wetting properties in alkaline formulations
- Corrosion inhibitor for aluminum and steel in aqueous systems at pH  $\geq 7$
- Recommended use level (0.25 – 0.5%)
- Moderate hard water stability
- Solubilizer for other surfactants in alkaline systems
- Low, quick breaking foam
- Good alkaline electrolyte tolerance
- Does not leave solid or waxy residue upon drying
- Biodegradable
- Provides lubricity in aqueous systems
- Non-phenolic, phosphate-free

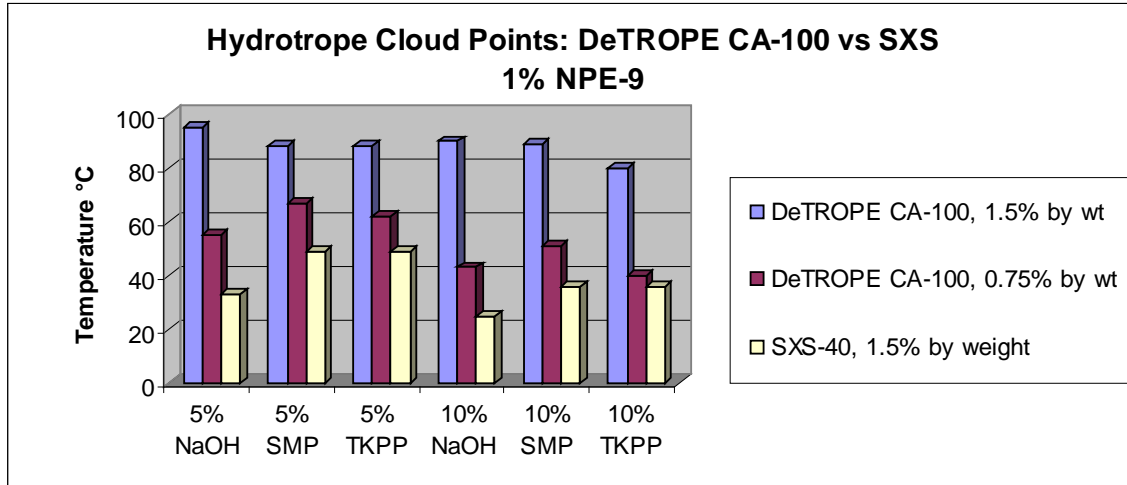
### APPLICATIONS

- Powdered alkaline detergents
- Synthetic coolants and cutting fluids
- Low foam caustic cleaners
- Aerosol formulations
- Low foam alkaline cleaners
- Water soluble lubricants
- High pressure alkaline detergents
- Alkaline metal cleaners
- Water based paints and coatings
- Metal working fluids
- Synthetic cutting fluids
- Mechanical dishwashing detergents
- Hard surface cleaners

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**DeTROPE CA-100 Hydrotrope Data**

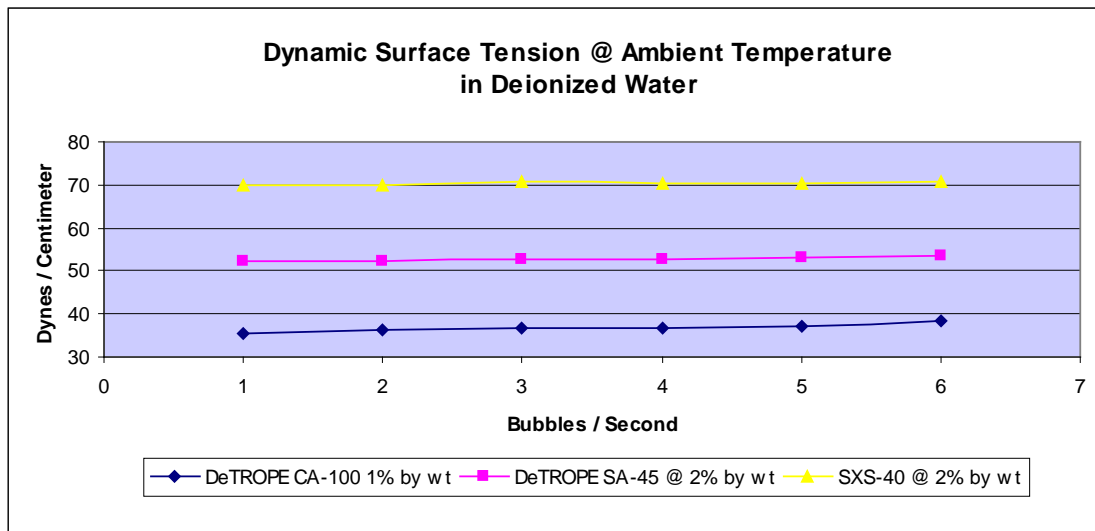
Hydrotrope capabilities were determined in a series of cloud point tests. The hydrotrope was solubilized in a caustic or alkaline electrolyte solution followed by addition of a 9.5-mole nonylphenol ethoxylate (NPE-9.5). Each sample was heated to the temperature at which the NPE-9.5 clouds out of solution. The graph below depicts the cloud point temperature of each solution. The higher the cloud point temperature, the more efficient the hydrotrope.



**Key:** NaOH = Sodium Hydroxide, SMP = Sodium Metasilicate Pentahydrate, TKPP = Tetrapotassium Pyrophosphate

**Dynamic Surface Tension of DeTROPE CA-100**

Dynamic surface tension measurements were conducted on **DeTROPE CA-100** at ambient temperature in deionized water. Compared to SXS-40, **DeTROPE CA-100** provides significantly lower surface tension.



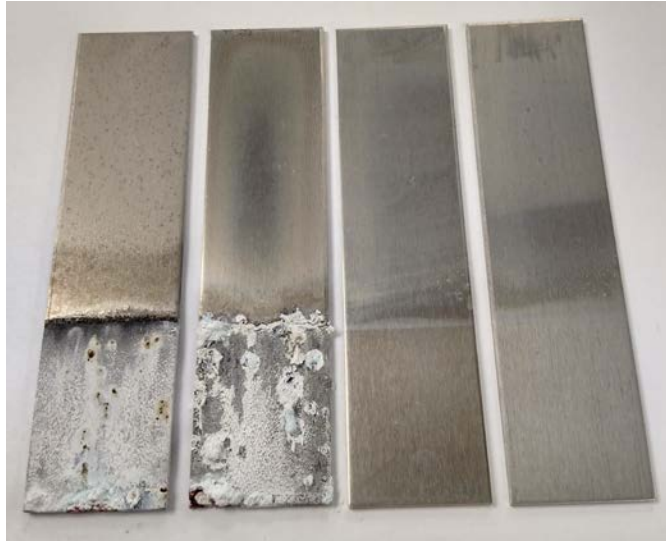
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**Panel Submersion Testing with DeTROPE CA-100** (continued)

Panels were half way submerged into a solution containing from 0.25 -1.0% by weight of **DeTROPE CA-100** in hard water (100 ppm as CaCO<sub>3</sub> & 71 ppm as chloride) at room temperature.

**#2024 Bare Aluminum, Tested for 9 months at ambient temperature**

**No inhibitor**      **0.25%**      **0.50%**      **1.0%**



**Cold Rolled Steel, (SAE 1010), Tested for 9 months at ambient temperature**

**No inhibitor**      **0.25%**      **0.50%**      **1.0%**

