

DeTERIC LP

DeTERIC LP, sodium lauriminodipropionate, CAS# 14960-06-6, is a versatile, high foaming amphoteric surfactant which finds use in a wide variety of HI&I cleaning formulations. Due to its mildness, it's also suitable for personal care applications (INCI Name: sodium lauriminodipropionate). DeTERIC LP is readily biodegradable and exhibits low toxicity.

SPECIFICATIONS

Appearance @ 25°C:	Light yellow liquid
% Solids:	29.0 – 31.0
pH (as-is):	7.0 +/- 1.0
Color (Gardner):	3.0 max.

SOLUBILITY DeTERIC LP is soluble in water, glycols and alcohols; insoluble in oils and solvents.

TYPICAL PROPERTIES

Density @ 25°C	~1.0 g/ml
Zwitterion pH Range	~2.4 – 4.2

- Excellent hydrotrope & solubilizing properties
- Wetting, emulsification, & detergency
- High foaming properties
- Excellent stability in strong alkali, acid, & high concentrations of electrolytes
- Solutions in the isoelectric range (pH ~2.4 - 4.2) may not be clear, but will maintain high foaming properties & fast wetting
- Compatible with anionic, cationic & nonionic surfactants
- Brine Stability
- Approved for use as inert in non-food pesticide formulations
- Approved for food use as inert under 40CFR180.910, 920, & 930
- Low skin & eye irritation
- Low toxicity & readily biodegradable
- Hard water stability
- Exhibits **corrosion protection** in hard water and strong acids

APPLICATIONS

- High foaming food plant cleaners
- High caustic & alkaline cleaners
- Strong acid cleaners
- Emulsifier for vinyl acetate/ethyl acrylate & vinyl chloride systems
- Leveling agent
- All purpose & hard surface cleaners
- Aerosol cleaners
- Foaming agent in oil drilling
- Fire fighting foam
- Hand dishwashing detergents
- Solubilizer for quaternary & halogenated germicides
- Liquid acid bowl cleaners
- High foam car & truck wash products
- Oven cleaners

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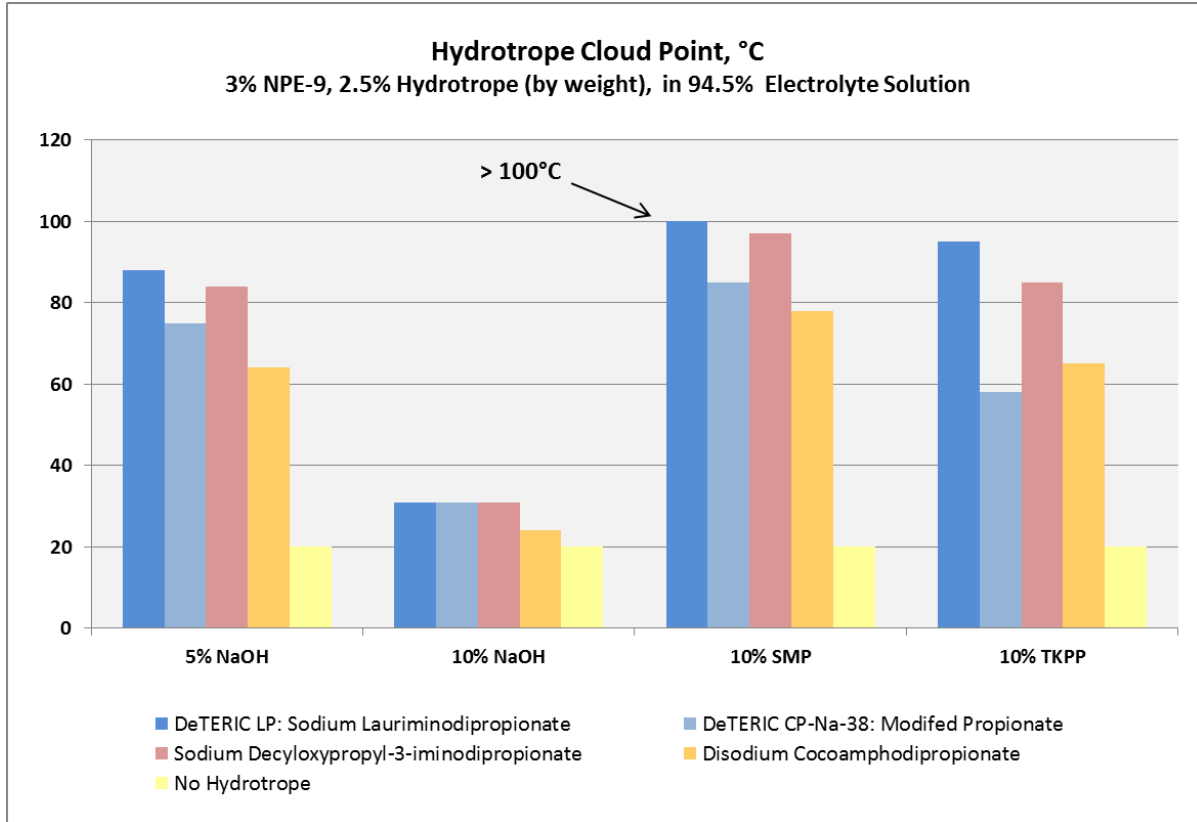
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Hydrotrope Properties of DeTERIC LP

DeTERIC LP is the superior hydrotrope when compared to other high foaming amphoteric surfactants in several electrolytic systems. To determine hydrotrope capabilities, a series of cloud point tests were performed with 3% NPE-9 and 2.5% hydrotrope in the electrolytes listed below.

The higher the cloud point temperature, the more efficient the hydrotrope.



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Corrosion Inhibition Properties of DeTERIC LP

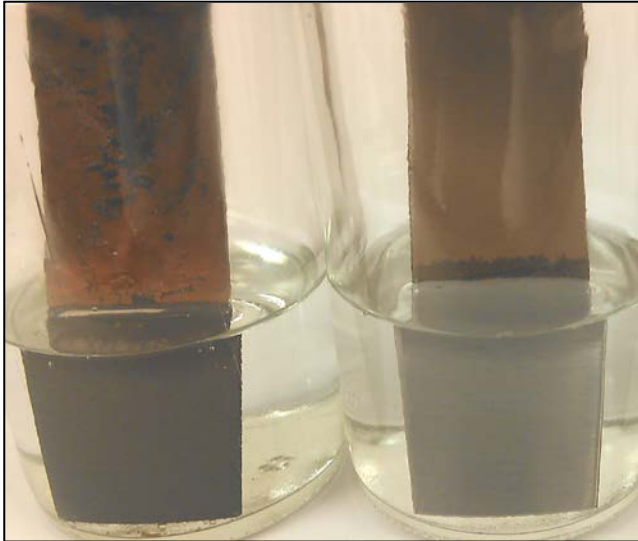
ACID CORROSION PROTECTION: Metal panels were submerged in the **acid solutions** and placed in sealed jars at room temperature and observed for signs of corrosion.

Cold-Rolled Steel

5% active Hydrochloric Acid, 72 hours

Control, no inhibitor

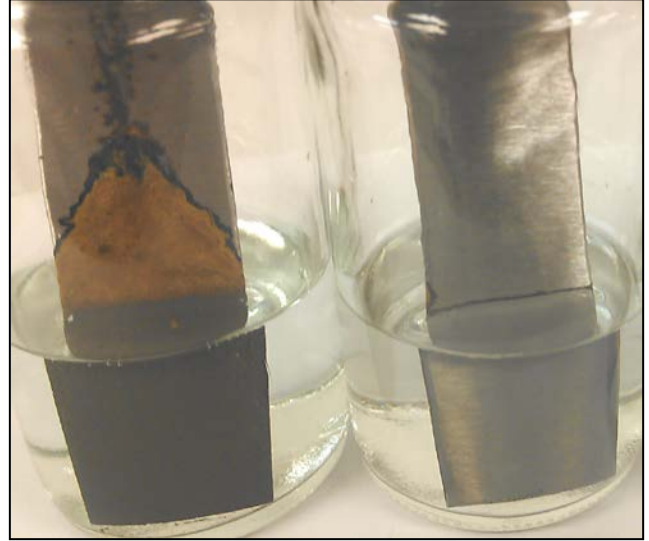
DeTERIC LP, 1% by wt.



5% active Sulfuric Acid, 72 hours

Control, no inhibitor

DeTERIC LP, 1% by wt.

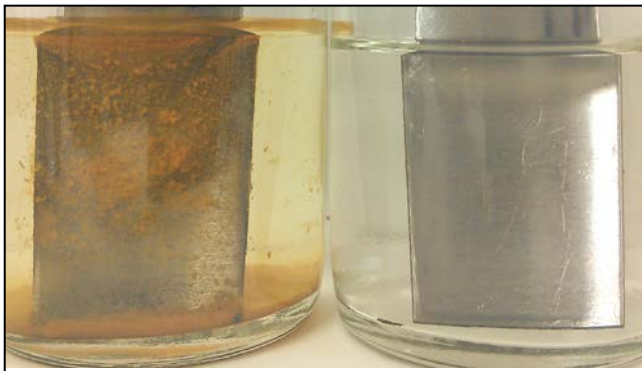


HARD WATER CORROSION PROTECTION: Metal panels were submerged in **hard water** (100 ppm as CaCO₃ and 71 ppm as chloride) in sealed jars at room temperature and observed for signs of corrosion over time. The following photos were taken at 72 hours.

Cold-Rolled Steel, 72 hours

Control, no inhibitor

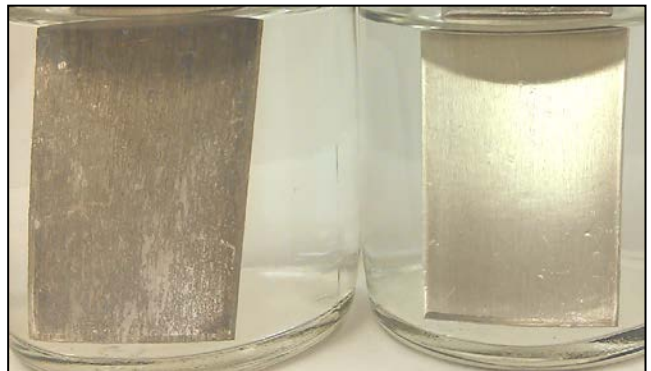
DeTERIC LP, 0.5% by wt.



Aluminum, 72 hours

Control, no inhibitor

DeTERIC LP, 0.5% by wt.



Metal Panels:

Steel Panels: Q-Panel – Type RS – low carbon, cold-rolled steel, 0.063” thick, ½ hard

Aluminum Panels: Q-Panel – Type AR - Alloy 2024T3 bare, 0.063” thick, 120 hardness

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