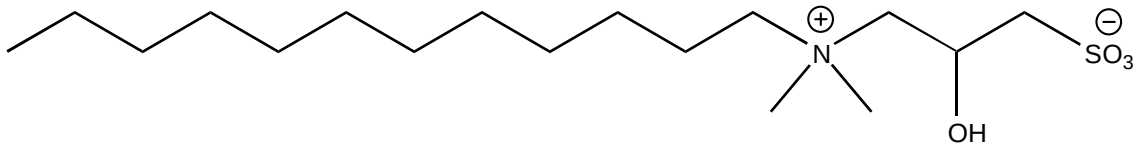
Macat® LHS



Lauryl Hydroxysultaine

Overview

MACAT LHS is a 42% active/50% solids lauryl (C_{12}) hydroxysultaine in water. LHS is an effective wetting and detergent agent, outstanding foam stabilizer, and is stable in strongly acid and alkaline systems.

The exceptional quality of MACAT LHS allows for use in a wide range of markets and applications. **HI&I Cleaners** formulations can benefit from the superior wetting performance, caustic solubility and coupling performance of LHS for improved detergency, foam stabilizing and ingredient compatibility.
In **Personal Care** products, LHS is an effective cleansing ingredient and solubilizing agent for optimum delivery of actives and conditioning ingredients.

MACAT LHS is biodegradable, and contains no solvents or VOCs. LHS exhibits very low toxicity with an LD_{50} (Rats) of >8000 mg/kg and at 10% active, causes minimal eye irritation, and not considered a primary dermal irritant.

INCI Name: Lauryl Hydroxysultaine.
CAS# 13197-76-7

Typical Properties

Water solubility	Complete
Physical form	Clear straw colored liquid
Color (Gardner)	1
Actives	44.0±2.5%
Solids	51.0±2.0%
Specific gravity (25°C)	1.09±0.04
pH (10% aq.)	7.0±1.5
Flash point	>200°F (PMCC)
RVOC, U.S. EPA, %	0
Shipping	Non-Red Label

Handling Information

Refer to the Material Safety Data Sheet (MSDS) available from Mason Chemical Company for information on the safe use, handling and disposal of this product.

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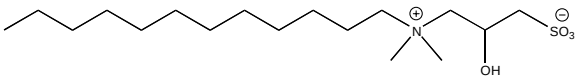
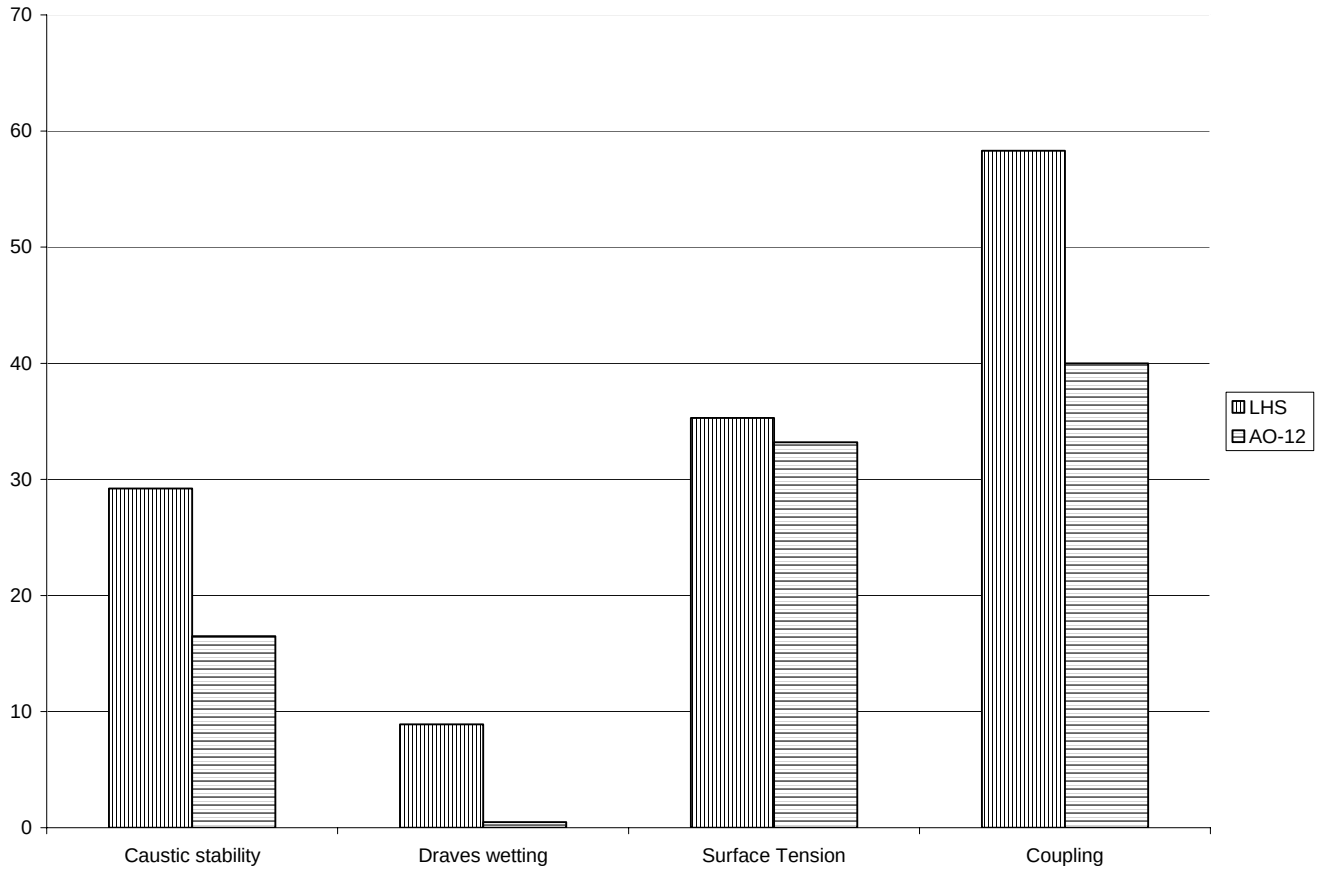


When compared with Macat AO-12 (lauryl dimethylamine oxide) for most HI&I Cleaning applications, Macat LHS exhibits complimentary performance, with advantages in Caustic stability and Coupling. Macat AO-12 exhibits advantages in Draves wetting and Surface Tension, suggesting the use of combinations of the two ingredients. Refer to the data illustrated in the table below:



- Caustic Stability is a measure of the solubility of Sodium Hydroxide in a surfactant solution. Typically, the greater the Caustic Stability of a surfactant, the greater the tolerance for electrolytes in a formulation containing that surfactant. The solubility tolerance was determined with a 1% active solution of surfactant in DI water at 25C.
- Draves Wetting is a measure of the wetting ability of a surfactant in solution. Draves wetting is reported in seconds, as the time required for a 0.5% active surfactant solution to wet a 3 gram weighted cotton skein.
- Surface Tension is a measure of the ability of a surfactant solution to spontaneously spread across a surface. Surface Tension is reported in dynes/cm determined by the NuNouy Ring method at 0.5% active surfactant.
- Coupling is a measure of the ability of a surfactant to solubilize the various components in a formulation as a function of temperature. Coupling is measured as the cloud point temperature for a formulation of 2% active surfactant with ethyleneglycol monobutyl ether, nonylphenol 9.5ETO surfactant, and sodium hydroxide builder.