Technical Information

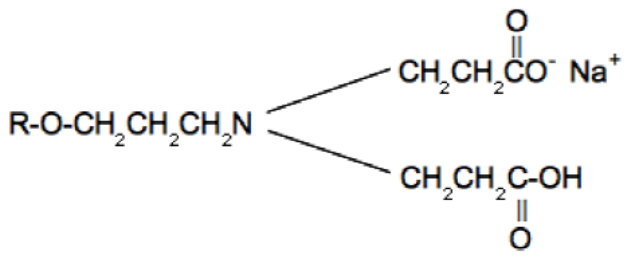
Tomamine® Amphoteric 12 Surfactant

Nonionic Wetting Agent and Grind Aid

Description

Tomamine® Amphoteric 12 surfactant is a biodegradable, low foaming, hydrotroping surfactant, designed for use in alkaline or acid cleaning formulations where the solubility of surfactants in high electrolyte content or water hardness is problematic. It is compatible with most anionic, nonionic, and cationic surfactants.

In addition to low foaming and good biodegradability, it can provide exceptional coupling stability, wetting and detergency in a wide range of formulations. The multifunctionality and high-efficiency of Tomamine® Amphoteric 12 surfactant makes it an ideal replacement for sodium xylene sulfonate.



Applications

- Low foam alkaline and acid cleaners
- Food processing cleaners
- Metal and parts cleaners
- Clean-in-place and spray detergents
- Carpet cleaners
- Auto dish cleaners
- Transportation cleaners

Advantages

- Biodegradable
- Exceptional coupling efficiency
- Low foam
- Excellent stability in caustic, acid and concentrated electrolytes
- Improves detergency

Typical properties

Specific Gravity at 25°C	1.11
Active, %	35
Gardner color, max	7
Flash point, °F	>212
Pour point, °F	26
Critical micelle concentration, %	0.015
Surface tension @ 0.1% (dynes/cm) in 2% NaOH	26

Ecological Information

Data indicates eligibility for direct release
Biodegradability: 67% in 28 days, OECD 301F
Daphnia magna (48-h EC50) = 33 mg/L

Figure 1: Coupling Efficiency

Efficiency of hydrotrope to couple an alkaline formulation

Conditions: 2% Tomadol® 900 surfactant or NP-9EO, 2% Sodium gluconate, 20% Potassium hydroxide (45% active), 20% Sodium silicate 3.22/1

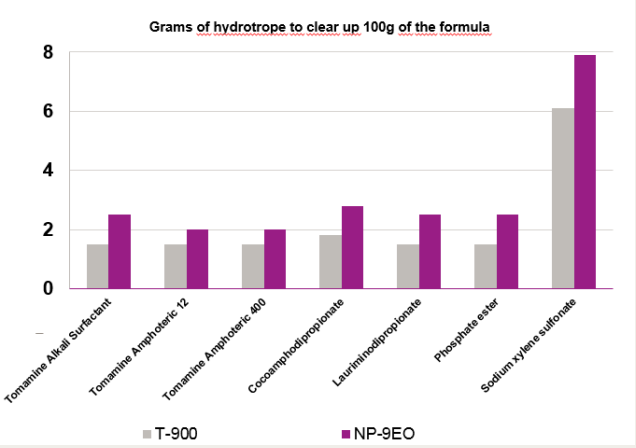


Figure 2: Ross-Miles Foam

0.1% actives; 150ppm hardness @ 25°C

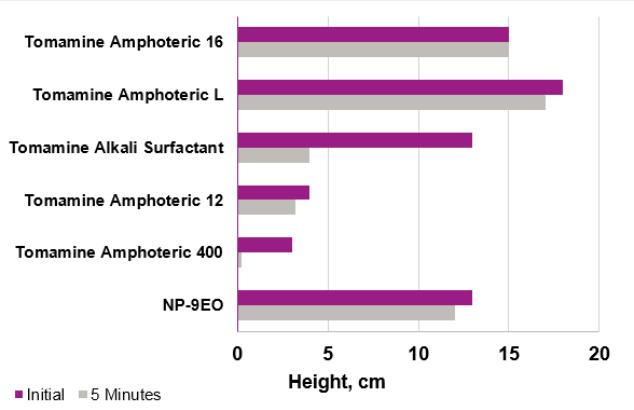
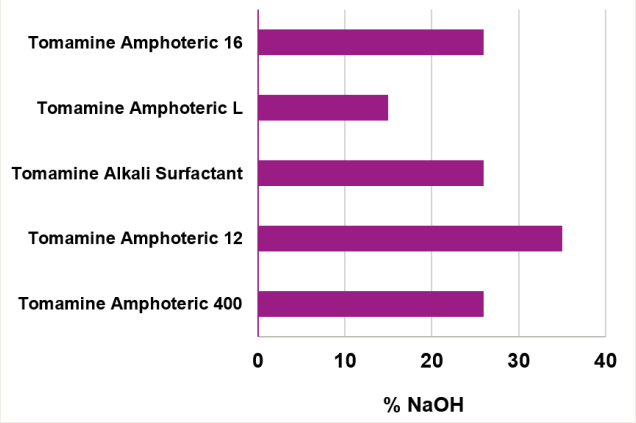


Figure 3: Caustic Solubility

1.0% active; 0ppm hardness @ 25°C



Storage and Handling

Please refer to Material Safety Data Sheet.

Shelf-Life

24 months from the date of manufacture.

Table 1: Amphoteric 12 Starting Formulation

Metal or Parts Degreaser

Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
- protective measures for storage and handling
- measures in case of accidents and fire
- toxicity and ecological effects

is given in our material safety data sheets.

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