



Velox™ EC-LM4

Alcohol Ether Carboxylate Surfactant

Overview

- 90% active lauryl/myristyl-4ETO carboxylic acid in water
- Provides effective foaming, wetting and detergency
- Exceptional foam retention for extended vertical cling
- High actives/high solids with low color for efficient use
- Naturally plant derived feed-stock, readily Biodegradable, contains no solvents or VOCs

Regulatory

The substances in Velox EC-LM4 are listed on and in compliance with the following Inventories: US (TSCA), Canada (NDSL), Europe (EINECS, 606-920-4), China (IECSC), Korea (ECL, 2004-3-2756)

CAS#: 220622-96-8

Technical Information

Velox™ EC-LM4 is a 90% active, lauryl/myristyl-4ETO carboxylic acid in water. Velox EC-LM4 is a unique multi-functional high foaming surfactant with the attributes of dense stable foam, exceptional foam retention with high alkalinity and hard water tolerance. Velox EC-LM4 is a 90% active material, shipped as the free acid, for neutralization into a range of products and applications. Performance can be tailored as a function of pH: under acidic conditions, Velox EC-LM4 functions as a nonionic surfactant, under alkaline conditions as a hard water tolerant anionic.

Formulary

Velox EC-LM4 is a multi-functional surfactant compatible with nonionic, anionic and amphoteric surfactants, providing exceptional detergency in hard or soft water. Use Velox EC-LM4 in high foaming, high alkalinity anionic systems with exceptional vertical cling foam performance. Take advantage of the hypochlorite stability of Velox EC-LM4 in the formulation of efficient hard surface cleaners. Velox EC-LM4 is a versatile surfactant for wetting, emulsification, solubilizing and emulsification in acid, neutral and alkaline formulations, and an efficient hydrotrope for coupling nonionic surfactants into strong electrolyte and high alkaline systems.

Typical Properties

PROPERTY	VALUE
Appearance	Clear pale amber solution
Odor	Mild
Ionic character	Anionic
Water solubility	Soluble
Carrier	Water
Activity, %	92.0±2.0
NaCl content, %	1.0 Maximum
Water content, %	7.0±2.0
Acid value, mg KOH/g	95±15
pH (1% aq.)	3.0±1.0
Density@25°C	1.01±0.04 g/ml
Boiling Point	Approx. 100°C
Flash point, °F	>200
Storage	Freeze/thaw stable
Shelf life	2 years

Packaging and Handling

Velox EC-LM4 is available in:
Plastic totes
(Net Wt. 2250 lbs/1020 kgs)
Plastic drums
(Net Wt. 463 lbs/210 kgs)

Refer to Safety Data Sheet (SDS) for information on the safe use, handling, and disposal of this product.

DOT Classification: Non-Regulated

Velox™ EC-LM4

Alcohol Ether Carboxylate Surfactant

Velox EC-LM4 is a high foaming co-surfactant that imparts detergency and high foam retention and vertical cling to hard surfaces. The formulation below illustrates this effect.

Formulation Guide Mild Degreasing Hand soap	
Ingredient	Wt. %
Water	to 100
Velox EC-LM4 ¹	5
Valens AM-200 ²	0.5
Velox BT-1612 ³	1.0
Diethyleneglycol butyl ether ⁴	1.0
Sodium citrate ⁵	3.0
Citric acid	q.s. for pH 5-7
Dye/Fragrance	q.s.

Mix in order listed.

Notes:

- (1) Lauryl/Myristyl Ether Carboxylic acid
- (2) PEG-4 Rapeseedamide for viscosity and foam stabilization
- (3) Cetyl Betaine for viscosity and foam boosting
- (4) For additional soil release
- (5) Build viscosity

Gray Beard Solutions produces a full range of alkyl sulfosuccinate surfactants, C8-C22 N-alkyl and N-amidopropyl amine oxides and betaines, and specialty amphoteric surfactants including:

Velox™ AO-Amine Oxides

Velox AO-8 (octyl dimethyl amine oxide)
Velox AO-10 (decyl dimethyl amine oxide)
Velox AO-12 (lauryl dimethyl amine oxide)
Velox AO-14 (myristyl dimethyl amine oxide)
Velox AO-16 (cetyl dimethyl amine oxide)
Velox AO-18O (oleyl dimethyl amine oxide)
Velox AO-12C (cocoalkyl dimethyl amine oxide)
Velox AO-1216 (lauryl/cetyl dimethyl amine oxide)
Velox AO-12CAP (cocoalkyl amidopropyl dimethyl amine oxide)
Velox AO-1416AP (myristyl/cetyl amidopropyl dimethyl amine oxide)
Velox AO-12-2 (dihydroxyethyl lauramine amine oxide)

Velox™ AS-Alkyl Sulfosuccinates

Velox AS-D8EH 70PG (dioctyl/2-ethylhexyl sodium sulfosuccinate, 70% active in propylene glycol)
Velox AS-D8EH 75E (dioctyl/2-ethylhexyl sodium sulfosuccinate, 70% active in propylene glycol)
Velox AS-D8EH 70MSO (dioctyl/2-ethylhexyl sodium sulfosuccinate, , 70% active in mineral seal oil)
Velox AS-D6MA (dihexyl/methylamyl sodium sulfosuccinate)
Velox AS-M12 (monolauryl disodium sulfosuccinate)
Velox AS-M12-3 (monolaureth-3 disodium sulfosuccinate)

Velox™ IM-Alkyl Imino Carboxylates

Velox IM-12DP (laurimino dipropionate)
Velox IM-EA10DP (decyloxypropylimino dipropionate)
Velox IM-2EHDP (2-ethylhexylimino dipropionate)

