

ALFONIC® 1216CO-3 Ethoxylate

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reaching new frontiers



Technical Data Sheet

Description

Sasol North America Inc.'s ALFONIC® 1216CO-3 Ethoxylate is a biodegradable, nonionic surfactant based on a linear primary alcohol formulated to simulate that derived from coconut oil. ALFONIC® 1216CO-3 Ethoxylate is essentially 100% active and is a clear to hazy liquid at room temperature with the following structural formula: $\text{CH}_3(\text{CH}_2)_x\text{CH}_2(\text{OCH}_2\text{CH}_2)_3\text{OH}$ where 'x' varies between 10 and 14.

Because it is a low-mole ethoxylate, it is insoluble in water but soluble in hydrocarbons. The narrow range, or "peaked," version ethoxylates made using Sasol North America Inc.'s patented NOVEL® technology are also available.

Applications

ALFONIC® 1216CO-3 Ethoxylate has been proven to be the surfactant of choice for effective and efficient soil removal. This product is often one of the main surfactants in liquid detergents, hard-surface cleaners, and other industrial cleanser formulations. Additionally, ALFONIC® 1216CO-3 Ethoxylate can be used as a cost effective wetting agent, degreaser, and emulsifier.

Properties

Typical physical properties are listed in the table to the right. Actual properties will vary from lot to lot.

Contact Information

For technical information or samples:

Sasol North America

Product Steward
2201 Old Spanish Trail

Westlake, Louisiana 70669

Telephone: (337)494-4133

Fax: (281)368-0819

TDS.ProductSteward@us.sasol.com

For sales and pricing information contact a sales representative at:

Sasol North America

900 Threadneedle
Houston, TX 77079-2990

Telephone: (281)588-3000

Fax: (281)368-1531

Email: info@us.sasol.com

Typical Properties	ALFONIC® 1216CO-3
Average Molecular Wt	312 – 322
Color, APHA	< 50
Hydroxyl Number	174 – 180
Water, Wt %	< 0.1
Glycol, Wt %	< 1
Free Alcohol, Wt%	< 15
Density, g/mL @ 15°C	0.934
Flash Point °C (°F)	>177 (>350)
Cloud Point, 10% in 25% BDG solution, °C (°F)	62 (144)
Melting Range, °C (°F)	4 – 7 (40 – 45)
Boiling Point, °C (°F)	261 (501)
Viscosity, cSt @ 40°C	15
pH, 5% in IPA/Water	5 – 8
Vapor Density, Air = 1	10.9
Avg. EO Content, moles	3
Avg. EO Content, Wt %	40.5
Free EO, PPM	< 1
Solubility in Water, g/L	Insoluble
HLB, calculated	8.1

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For detailed safety and handling information regarding these products, please refer to the respective Sasol North America Material Safety Data Sheet.

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