

# NOVEL® 1412-3 Ethoxylate

## Technical Data Sheet

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### Description

Sasol North America Inc.'s NOVEL® 1412-3 Alcohol Ethoxylate is a biodegradable nonionic derived from linear primary ALFOL® 1412 Alcohol. This ethoxylate is made using Sasol North America Inc.'s patented NOVEL® catalyst technology, which yields products with lower free alcohol, PEG levels, and melting ranges when compared to the traditional base-catalyzed methods. It is essentially 100% active unless diluted with water and has the following structural formula:  $CH_3(CH_2)_xCH_2(OCH_2CH_2)_3OH$  where 'x' varies between 10 and 12. NOVEL® 1412-3 Ethoxylate is a clear to slightly hazy liquid at room temperature.

### Applications

NOVEL® 1412-3 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, NOVEL® 1412-3 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:

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Typical Properties	NOVEL® 1412-3
Average Molecular Wt	319 – 338
Color, APHA	< 50
Hydroxyl Number	166 – 176
Water, Wt %	< 0.1
Glycol, Wt %	< 2
Free Alcohol, Wt %	< 10
Density, g/mL @ 20°C	0.93
Flash Point °C (°F)	> 204 (> 400)
Boiling Point, °C (°F)	276 (528)
Cloud Point, 1% in H <sub>2</sub> O, °C (°F)	44 (111)
Melting Range, °C (°F)	8 – 13 (46 – 56)
Pour Point, °C (°F)	9 (48)
Viscosity, cSt @ 25°C	27
pH, 1% in IPA/Water	6 – 8
Vapor Density, Air = 1	11
Avg. EO Content, moles	3
Avg. EO Content, Wt. %	39
Free EO, PPM	< 1
Solubility in Water, g/L	Insoluble
HLB, calculated	7.8

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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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