

ALFOTERRA® 123-8S 90 Surfactant

SASOL
reaching new frontiers

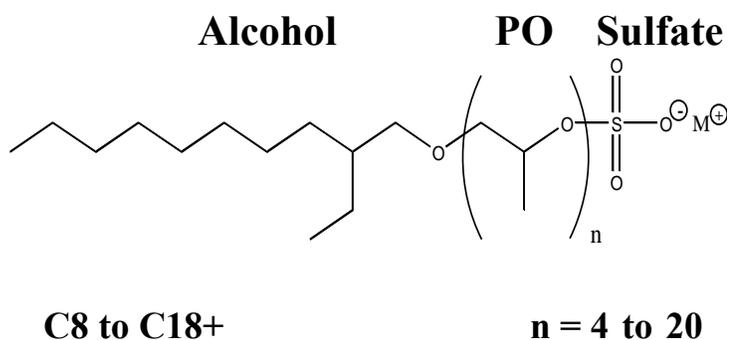


Technical Data Sheet

Description

Sasol North America Inc.'s ALFOTERRA® 123-8S Surfactant is the sodium salt of a monoalkyl C12-C13 branched propoxy sulfate. ALFOTERRA® Surfactants exhibit a unique extended surfactant structure allowing improved solubilization of oily materials in an aqueous medium by extending the interface. The monobranched alkyl hydrophobe allows for greater interaction with the oil phase while maintaining good solubility. These two factors give the surfactant unique emulsification properties and ultra-low interfacial surface tensions.

General Structure of the ALFOTERRA® Surfactant



Typical Properties	ALFOTERRA® 123-8S 90 Surfactant
Actives, Wt. %	85± 3%
Appearance 25°C	Thick golden yellow liquid
Unulfated Matter, Wt. %	≤ 10%
Density, g/mL @ 20°C	1.0614
Flash Point (PM), °C (°F)	>105 (>220)
Pour Point °C	-2 to 0
Melting Range, °C	-4 to -2
Viscosity, cSt @ 20°C	1202
pH, 5% in Water	6-11.5
Heat Capacity	Pending
Avg. PO Content, moles	8
Molecular Weight (amu)	761

Properties

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

Handling

Bulk quantities of ALFOTERRA® surfactants should be stored under nitrogen to prevent oxidation. Hot water system is recommended for temperature control. Do not heat above 40°C (104°F) unless under inert atmosphere. Contact Sasol North America for more specific information on shipping, transfer, and storage.

Contact Information

For technical information:

Sasol North America
Product Steward
2201 Old Spanish Trail
Westlake, Louisiana 70669
Telephone: (337)494-4133
Fax: (281)368-0819

For sales and pricing:

Sasol North America
900 Threadneedle
Houston, TX 77079-2990
Telephone: (281)588-3000
Fax: (281)368-1531
info@us.sasol.com

TDS.ProductSteward@us.sasol.com

MSDS is available at: www.SasolTechData.com

ALFOTERRA is a registered trademark of Sasol North America Inc.

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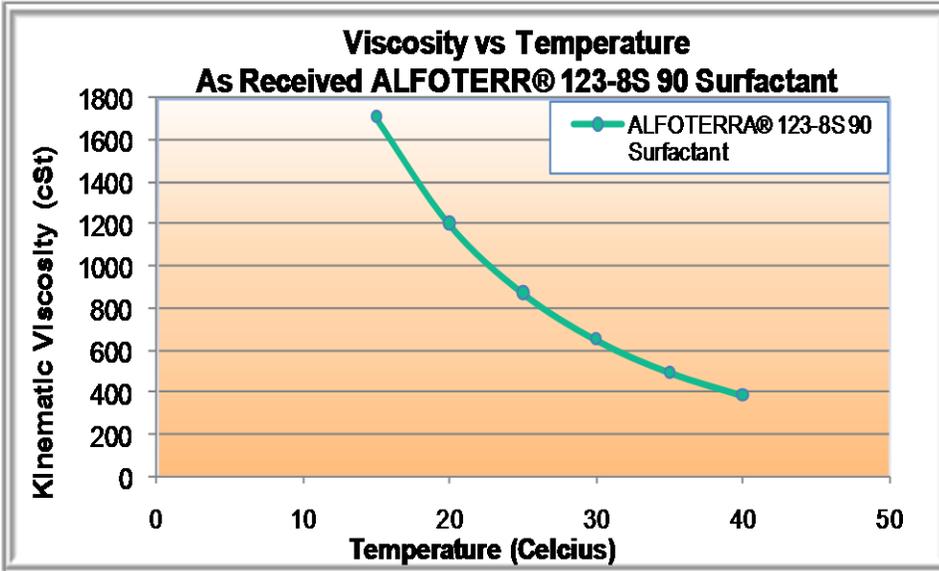
For detailed safety and handling information regarding these products, please refer to the respective Sasol North America Material Safety Data Sheet.

5/14/2013



Viscosity vs. Temperature of As Received 85 ±3%

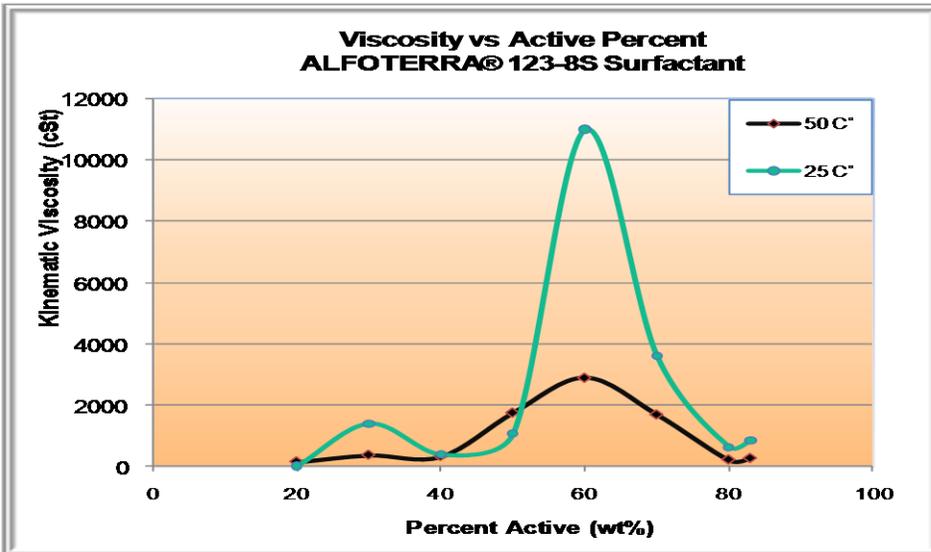
The plots below show the kinematic viscosity of ALFOTERRA® 123-8S 90 surfactant as a function of temperature. The values are given as a guide only. A range of ±15% should be allowed for lot-to-lot variation.



ALFOTERRA® 123-8S 90 Surfactant	
Temp (°C)	Viscosity (cSt)
15	1710
20	1202
25	874
30	651
35	496
40	386

Viscosity vs. Surfactant Concentration

The plots below show the kinematic viscosity of ALFOTERRA® 123-8S 90 surfactant as a function of active level. The values are given as a guide only. A range of ±15% should be allowed for lot-to-lot variation.

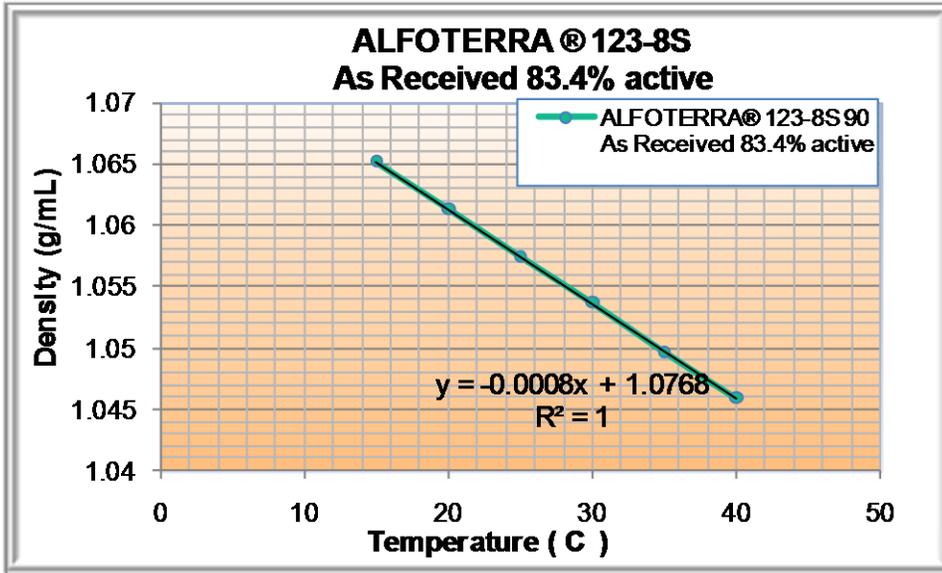


ALFOTERRA® 123-8S Surfactant		
Active %	25 °C	50 °C
pH 9.4		
83	849	264
80	640	216
70	3610	1700
60	11000	2910
50	1070	1760
40	387	331
30	1400	371
20	12.8	150



Density vs. Temperature

The plot below shows the density of the ALFOTERRA 123-8S 90 surfactant as a function of temperature for product as received 85 ±3% active.



ALFOTERRA® 123-8S 90 As Received 83.4% active	
Temp (C°)	Density (g/mL)
15	1.0652
20	1.0614
25	1.0575
30	1.0537
35	1.0497
40	1.0459