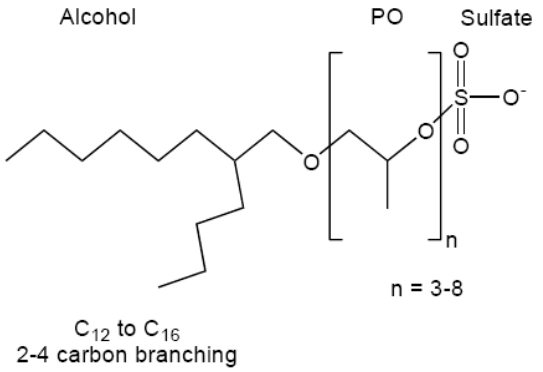
ALFOTERRA®145-8S 90 Surfactant

Technical Data Sheet

Description

Sasol North America Inc.'s ALFOTERRA® 145-8S Surfactant is the sodium salt of a monoalkyl C14-C15 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



Properties

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

Typical Properties	ALFOTERRA® 145-8S 90 Surfactant
Actives, Wt. %	85 ± 3
Appearance 25°C	Thick pale yellow slurry
Unsulfated Matter, Wt. %	≤ 10%
Density, g/mL @ 20°C	1.031
Flash Point (PM), °C (°F)	>105 (>220)
Pour Point °C	-7 to -3
Melting Range, °C	-10 to -5
Viscosity, cSt @ 20°C	1600
pH, 5% in Water	6-9
Heat Capacity	Pending
Avg. PO Content, moles	8
Molecular Weight (amu)	787

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:
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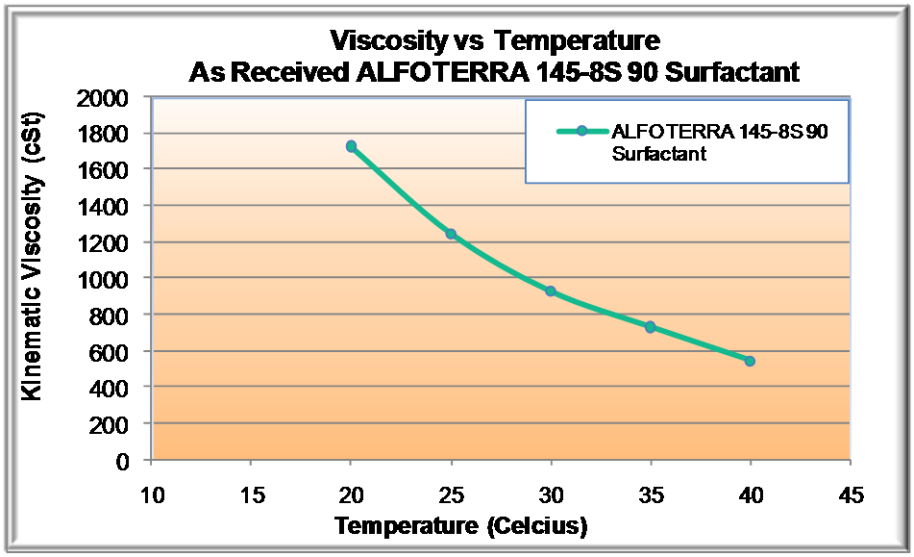
MSDS is available at: www.SasolTechData.com

7/7/2011

Viscosity vs. Temperature at As Received Active 85 ± 3%

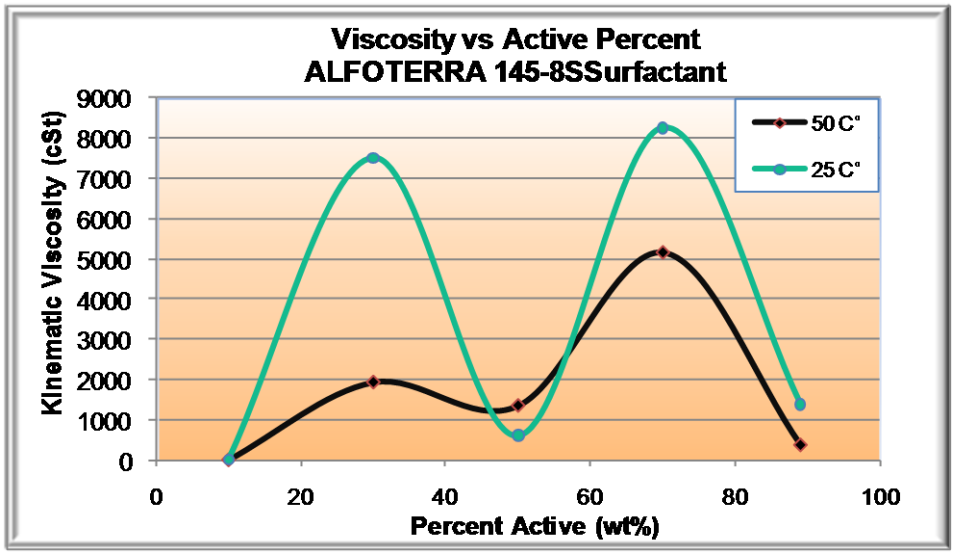
The plot below shows the kinematic viscosity of ALFOTERRA® 145-8S 90 surfactant as a function of temperature. The values are given as a guide only. A range of ±15% should be allowed for lot-to-lot variation.



ALFOTERRA® 145-8S Surfactant As Received 85+/-3% Active	
Temp (°C)	**Viscosity (cSt)**
20	1726
25	1246
30	926
35	730
40	545

Viscosity vs. Surfactant Concentration

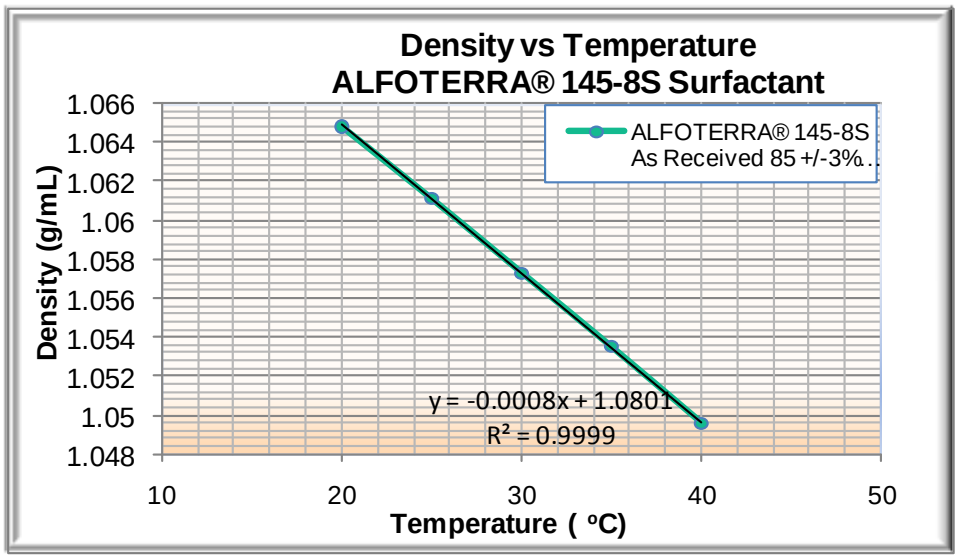
The plot below shows the kinematic viscosity of ALFOTERRA® 145-8S surfactant as a function of active level. The values are given as a guide only. A range of ±15% should be allowed for lot-to-lot variation.



ALFOTERRA® 145-8S Surfactant Viscosity (cSt)		
Active %	**25 °C**	**50 °C**
89	1380	370
70	8250	5150
50	610	1350
30	7500	1930
10	<10	<10

Density vs. Temperature

The plot below shows the density of ALFOTERRA® 145-8S 90 surfactant as a function of temperature for product as received 85 +/-3% active.



ALFOTERRA® 145-8S As Received 85 +/-3% active	
Temp (C˚)	**Density (g/mL)**
20	1.0648
25	1.0611
30	1.0573
35	1.0535
40	1.0496