



Shell NEODOL® 45

TECHNICAL DATASHEET

SICC Product Code: V2456

CAS Registry Number: 75782-87-5

Description

Shell NEODOL® 45 is a blend of C14 and C15 high purity, lightly branched, primary alcohols manufactured using the Shell Hydroformylation (SHF) process. It can be used in a variety of applications, which include the manufacture of lube oils, alcohol ethoxylates, and alcohol ethoxysulfates. Shell NEODOL® 45 alcohol biodegrades fast, as measured in the OECD 301 test.

Specification Properties – Shell NEODOL® 45

Property	Unit	Value	Method ^a
Normality	%m/m	>75	SMS 2914
Color	Pt-Co (APHA)	<10	ASTM D1209
Carbonyl as C=O	mg/kg	<80	SMS 2097
Acid Number	eq/100g	<0.0005	SMS 2912
Water	%m/m	<0.1	ASTM E1064
Appearance	CSFVM ^b	Pass	Visual
Hydroxyl Number	mgKOH/g	250-257	SMS 2914
C13 Alcohols & Lower	%m/m	<1	SMS 2914
C14 Alcohols	%m/m	49	SMS 2914
C15 Alcohols	%m/m	50	SMS 2914
C16 Alcohols & Higher	%m/m	<1	SMS 2914
Total Hydrocarbons	%m/m	<0.5	SMS 2914
Molecular Mass	g/mol	218-224	SMS 2914

Notes:

a SMS = Shell Method Series. b CSFVM = Clear and substantially free of Visible impurities.



Typical Physical Properties – Shell NEODOL® 45

Property	Unit	Value	Method
Density @ 40°C	kg/L	0.823	ASTM D4052
Flash Point	°C	157	ASTM D93 (PMCC)
Flash Point	°F	315	ASTM D93 (PMCC)
Pour Point	°C	22	ASTM D97
Pour Point	°F	72	ASTM D97
Viscosity, Dynamic @ 35 °C	mPa.S	50	ASTM D445
Viscosity, Kinematic @ 40 °C	mm ² /s	18	ASTM D445
Melting Point	°C	36	

Test Methods

Copies of copyrighted test methods can be obtained from the issuing organizations:

- American Society for Testing and Materials (ASTM)

Shell Method Series (SMS) methods are issued by Shell Global Solutions International B.V., Shell Technology Centre, Amsterdam, The Netherlands. Requests for copies of SMS can be made through your local Shell Chemicals company.

N.B: For routine quality control local test methods may be applied. Such methods have been validated against those mentioned in this datasheet.

Hazard Information

Shell NEODOL® alcohols exhibit low oral, skin and respiratory toxicity. Generally, these alcohols are slightly to moderately irritating to the eyes and skin. Prolonged or repeated skin contact with undiluted alcohols may lead to defatting of the skin and ultimately cause dermatitis.

Access Safety Data Sheets here: [Safety Data Sheets](#)

Storage and Handling

Advice on the storage and handling of Shell NEODOL® alcohols can be found on our web site at www.shell.com or by contacting your local Shell Chemicals representative.

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