



Shell NEODOL® 91

TECHNICAL DATASHEET

SICC Product Code: V2729

CAS Registry Number: 66455-17-2

Description

NEODOL 91 is a blend of C9, C10, and C11 high purity, lightly branched, primary alcohols manufactured using the Shell Hydroformylation (SHF) process. It can be used in a variety of applications, but it is primarily used for the manufacture of lube oils, alcohol ethoxylates, and alcohol ethoxysulfates. NEODOL 91 alcohol biodegrades fast, as measured in the OECD 301 test.

Specification Properties – NEODOL 91

Property	Unit	Value	Method ^a
Normality	%m/m	75-80	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	342-355	SMS 2914

Notes:

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

Typical Physical Properties – NEODOL 91

Property	Unit	Value	Method
C8 Alcohols & Lower	%m/m	<1	SMS 2914
C9 Alcohols	%m/m	18	SMS 2914
C10 Alcohols	%m/m	42	SMS 2914
C11 Alcohols	%m/m	38	SMS 2914
C12 Alcohols & Higher	%m/m	<2	SMS 2914
Total Hydrocarbons	%m/m	<0.5	SMS 2914



Density @ 20°C		<0.831	ASTM D4052
Molecular Mass	g/mol	158-164	Calculated
Flash Point	°C	108	ASTM D92
	°F	226	ASTM D92
Pour Point	°C	-12	ASTM D97
	°F	10	ASTM D97
Viscosity, Kinematic @ 40 °C	cST or mm ² /s	9	

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

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 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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