



# Shell NEODOL® 91

## TECHNICAL DATASHEET

SICC Product Code: V2729  
CAS Registry Number: 66455-17-2

### Description

Shell 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. Shell NEODOL® 91 alcohol biodegrades fast, as measured in the OECD 301 test.

### Specification Properties – Shell NEODOL® 91

Property	Unit	Value	Method <sup>a</sup>
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 <sup>b</sup>	Pass	Visual
Hydroxyl Number	mgKOH/g	342-355	SMS 2914

Notes:

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

### Typical Physical Properties – Shell 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



## Typical Physical Properties – Shell NEODOL® 91, continued

Property	Unit	Value	Method
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 <sup>2</sup> /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

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](http://www.shell.com) or by contacting your local Shell Chemicals representative.

### Shell Warranties

All products purchased or supplied by Shell chemicals companies are subject to the terms and conditions set out in the contract, order confirmation and/or bill of lading. All other information supplied by Shell chemicals companies, including that herein, is



**Shell Chemicals**

considered accurate but is furnished upon the express condition that the customer shall make its own assessment to determine a product's suitability for a particular purpose. Except as may be set forth in the applicable contract, order confirmation and/or bill of lading, Shell chemicals companies make no warranty, express or implied, including regarding any information supplied or the data upon which it is based or the results to be obtained from the use of such products or information, or concerning product, whether of satisfactory quality, merchantability, fitness for any particular purpose or otherwise, or with respect to intellectual property infringement as a result of use of information or products, and none shall be implied.

The expression 'Shell Chemicals' refers to the companies of Shell Plc./Shell Group that are engaged in chemical businesses. Each of the companies that make up Shell Plc./Shell Group of companies is an independent entity and has its own separate identity.

Learn more at [www.shell.com/chemicals](http://www.shell.com/chemicals)