



Shell Chemicals

Shell NEODOL® 91-5

TECHNICAL DATASHEET

SICC Product Code: V2460

CAS Registry Number: 931-514-1

Description

Shell NEODOL® 91-5 is a blend of C9, C10, and C11 high purity, lightly branched, primary alcohols with an average of approximately 5 moles of ethylene oxide per mole of alcohol. Shell NEODOL® 91-5 alcohol ethoxylate biodegrades fast, as measured in the OECD 301 test.

Typical Chemical Properties – Shell NEODOL® 91-5

Property	Unit	Value	Method ^a
Hydroxyl Number	mg KOH/g	143 - 153	SMS 1848
Molecular Mass	g/mol	367 - 392	SMS 1848
Color, Pt-Co	-	< 50	ASTM D1209
Water	%m/m	< 0.1	ASTM E1064
Ash	%m/m	< 0.2	ASTM D482
Polyethylene Glycol	%m/m	< 2	SMS 1528
Appearance	-	LCSH ^b	Visual
Acid Number	mg KOH/g	0.05 - 0.20	SMS 2912
EO/Alcohol Mole Ratio	-	4.7 - 5.3	SMS 1848
Residual EO	mg/kg	< 6	SMS 2957
1,4 - Dioxane	mg/kg	< 1 ^c	Headspace GC-FID

Notes:

a: SMS -Shell Method Series

b: Liquid, Clear to Slightly Hazy

c: Method Detection Limit 0.02 mg/kg

d: Typical Value by water titration



Typical Physical Properties – Shell NEODOL® 91-5

Property	Unit	Value	Method
Density @ 40°C	kg/l	0.964	ASTM D4052
Cloud Point	°C	36 ^d	SMS 1664
Flash Point	°C	150	ASTM D56/D92/D93
Pour Point	°C	4	ASTM D5949/D97
HLB	Number	11.6	Griffin's Method (1954)
Kinematic Viscosity @ 40°C	mm ² /s	18	ASTM D445

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® alcohol ethoxylates 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. For detailed Hazard Information please refer to the Safety Data Sheet.

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

Storage and Handling

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



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