



Shell Chemicals

Shell NEODENE® 6 XHP

TECHNICAL DATASHEET

SICC Product Code: V1262

CAS Registry Number: 592-41-6

Description

Shell NEODENE® 6-XHP Linear Alpha Olefin is a high purity 1-hexene made by the Shell Higher Olefins Process (SHOP) by the oligomerization of ethylene. It can be used in a variety of applications, but it is primarily used as a comonomer in polymerization process to make High Density and Linear Low Density Polyethylene where the very high purity is especially beneficial.

Typical Chemical Properties – Shell NEODENE® 6 XHP

Property	Unit	Value	Method ^a
C4 and lower	%m/m	< 0.1	SMS 2895
C6	%m/m	> 99.9	SMS 2895
C8 and higher	%m/m	< 0.1	SMS 2895
1-Hexene	%m/m	> 99.0	SMS 2895
Total n-Alpha Olefins	%m/m	> 99.0	SMS 2895
Total Branched Olefins	%m/m	< 1.0	SMS 2895
Total Internal Olefins	%m/m	< 0.5	SMS 2895
Total Paraffins	%m/m	< 0.05	SMS 2895
Appearance	-	CSFVI ^b	Visual
Color, Pt-Co	-	5	ASTM D1209
Carbonyl as C=O	mg/kg	< 1	SMS 2894
Carbonyl as acetone	mg/kg	< 2	SMS 2894
Peroxides as O	mg/kg	< 0.5	SMS 359
Water	mg/kg	< 25	ASTM E1064

Notes:

a: SMS -Shell Method Series

b: Clear & Substantially free of visual impurities

**Typical Physical Properties – Shell NEODENE® 6 XHP**

Property	Unit	Value	Method
Density @ 20°C	kg/m ³	677	ASTM D4052
Boiling Point Range	°C	61 - 78	-
Flash Point	°C	- 29	ASTM D56/D92/D93
Freezing Point	°C	-140	-
Kinematic Viscosity @ 20°C	mm ² /s	0.4	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

Alpha Olefins are potentially hazardous; everyone concerned with handling it must be conversant with the nature of the hazards and trained in the recommended handling procedures for both normal and emergency situations. Before handling the product, refer to the Safety Data Sheet.

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

Storage and Handling

Shell NEODENE® 6-XHP is normally supplied under nitrogen, and no antioxidant is added unless requested. Advice on the storage and handling of NEODENE® and SHOP Linear Alpha Olefins can be found on our web site at www.shell.com or by contacting your local Shell Chemicals representative.

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Shell Chemicals

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