



NEOFLO™ 3121

Synthetic Base Drilling Fluids

Issued: February 2016

SICC Product Code: V1448

Description:

- NEOFLO 3121 is part of our Premium series of synthetic olefin and paraffin drilling fluids.
- NEOFLO 3121 is an internal olefin with a carbon chain length of C13 and C14.
- NEOFLO 3121 is especially well-suited for land-based applications. The product has a low viscosity and pour point and performs as well as or better than traditional oil-based fluids, especially in cold weather environments.

Classification:

This product is classified as a synthetic according to the US EPA definition. "Synthetic material as applied to synthetic-based drilling fluid means material produced by the reaction of specific purified chemical feedstock, as opposed to the traditional base fluids such as diesel and mineral oil which are derived from crude oil solely through physical separation processes. Physical separation processes include fractionation and distillation and/or minor chemical reactions such as cracking and hydro processing." *

*US EPA Gulf of Mexico nonaqueous-based drilling fluid stock limitation requirements in 77 FR No. 196, pg. 61605. (Notice of Final NPDES General Permit for New and Existing Sources and New Dischargers in the Offshore Subcategory of the Oil and Gas Extraction Category for the Western Portion of the Outer Continental Shelf of the Gulf of Mexico {GMG290000}): Section G. Definitions, 77 "Synthetic Material," pg. 62

Property	Unit	Value	Method	
Typical Chemical Properties ^a	C12 & Lower	%m/m	< 2.0	SMS 2976
	C13	%m/m	43 – 55	SMS 2976
	C14	%m/m	45 - 55	SMS 2976
	C15 & Higher	%m/m	< 2.5	SMS 2976
	Appearance		CSFVI ^b	Visual
	Color, Pt-Co		< 10	ASTM D1209
	Water	mg/kg	< 100	ASTM E1064

a: An official sales specification is available from your local Shell Chemicals representative.

b: Clear & Substantially free of visual impurities

Typical Physical Properties	Property	Unit	Value
	Density @ 20 °C	kg/m ³	773
	Boiling Point	°C	
	5%		233
	95%		257
	Flashpoint	°C	102
	Pour Point	°C	-37
	Kinematic viscosity	cSt	
	@ 0°C		3.9
	@ 20 °C		2.5
@ 40°C		1.8	
Aniline Point	°C	66	

Storage and Handling

NEOFLO products may be stored in carbon steel tanks. Hoses manufactured from polyethylene, butyl rubber, or neoprene liners are suitable for discharging. A nitrogen blanket is recommended to reduce potential for product degradation. Antioxidants can be added, upon request, to enhance the long-term stability. The recommended storage temperature is 20°C, the recommended maximum is 60°C and the recommended minimum is -5°C to prevent freezing. Additional advice on the storage and handling of NEOFLO products can be found on our website at www.shell.com/business-customers/chemicals/our-products, or by contacting your local Shell chemicals companies' representative.

Hazard Identification

NEOFLO products have been demonstrated to have a relatively low order of toxicity by the routes of exposure (oral, dermal, inhalation) encountered in normal handling. Like many hydrocarbon liquids, olefins will dry and de-fat the skin on prolonged contact and will result in skin irritation and dermatitis. Also, like other hydrocarbons, this product can be dangerous when aspirated or ingested. Before handling the product, refer to the Safety Data Sheet that is available from your local Shell chemicals companies' representative. Additional information can be found on our website at www.shell.com/business-customers/chemicals/our-products in the Safety Data Sheet section.

Emergency Helpline

For emergency telephone numbers refer to the Safety Data Sheet relevant for your company's country and language.

Shell Warranties

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