

Cargo Handling Sheet

Non-Shell Product

Motiva Star 12

Document Date: 15 September 2017

Revision 1

Cargo Handling Sheets are for the use of vessels chartered by Shell Chemicals

Information is obtained from supplier's SDS and other reference publications.

Product Details

Product Name:	Motiva Star 12
Shipping Name:	Base Oil
Chemical Family:	Distillates (Petroleum Hydrotreated, heavy paraffinic)
Product Code:	Non-Shell; Motiva product
SDS:	Get from loading terminal or charterer

Physical Properties

Density:	Typical 876 kg/m ³ (15.0 °C / 59.0 °F)
Kinematic Viscosity:	Typical 110 mm ² /s (40 °C / 104 °F)
Vapor Pressure:	< 0.5 Pa (20 °C / 68 °F)
Boiling Point:	> 280 °C / 536 °F
Pour Point:	Typical -13 °C / 9 °F
Flash Point:	Typical 267 °C / 513 °F
Appearance:	Clear

Note 1: Physical Properties are for reference only; see loading terminal for specific properties.

Transhipments	Prior to arranging transhipment Charterer must agree to Owner's proposed plan
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Marpol Details

Marpol Annex:	I
IMO Ship Type:	Double hull vessels certified for carriage of oil
Inland Barge:	Double Hull
IMO Pollution Category:	Annex I
IBC 16.2.6:	Not applicable

IBC 16.2.9:	Not applicable
Pre-wash Required:	Not Applicable; wash/disposal as per Annex I
Compatibility Group:	USCG compatibility group 33

Cargo Handling Requirements

N2 Purge Cargo Tanks Prior to Loading:	No
N2 Blanket Required:	No; see notes below
Adjacent Space Purge:	No
Loading Temperature Range:	Ambient – 35 °C / 95 °F
Transit Temperature Range:	Ambient – 30 °C / 86 °F
Discharge Temperature Range:	30 – 35 °C / 86 - 95 °F
Maximum Heating Coil Temperature:	50 °C / 122 °F
Adjacent Maximum Cargo Temperature:	40 °C / 104 °F

Note 1: Consult supplier regarding N2 blanket.

Note 2: If Nitrogen blanket is in place and Carrier chooses to tranship, carrier must reapply nitrogen blanket on the cargo, both on the discharging and receiving vessel, at their time, risk, and expense.

Note 3: Consult supplier regarding carriage temperatures.

Regional Requirements

None

Tank Acceptance Requirements

All nominated shipboard cargo handling systems are to be presented clean (residual free), dry, odor free, rust free, with good gaskets, fit to load this cargo.

Maintenance of heating coils is to be verified in the ship's log. If product is to be heated, heating coils are to be confirmed leak free. If product is not heated, heating coils are to be blown clear and dried with N2, and blanked off.

Stainless Steel or Coated Tank:	Either, carrier to verify suitability of coating for product
Prior Cargo Restrictions:	No
Wall Wash Required:	No

Safety Information and Incident Reporting

Safety Information:

For more detailed information, refer to the SDS or e-SDS for reportable spill/release quantities whether in the water, air or ground.

Incident Reporting for vessels on Shell charter.

International Registered Vessels: call Shell International Trading and Shipping in London on +442079347777.

Jones Act Vessels: call the Shell 24 hr. incident number at +17132412532. The USA National response center telephone number is +18004248802.

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