



Shell Chemicals

Cargo Handling Sheet

Methyl Ethyl Ketone (MEK)

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Revision 10

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

Product Details

Product Name: Methyl Ethyl Ketone
IMO Product Name: Methyl Ethyl Ketone
Chemical Family: Ketone
Product Code: S2113

SDS: <http://www.shell.com/business-customers/chemicals/safe-product-handling-and-transportation/safety-data-sheets.html>

Physical Properties

Density: 804 - 806 kg/m³ (20 °C / 68 °F)
Dynamic Viscosity: 0.42 mPa.s (20 °C / 68 °F)
Vapor Pressure: 12.600 Pa (20 °C / 68 °F)
Boiling Point: 79.5 °C / 175.1 °F
Melting Point: -86 °C / -123 °F
Flash Point: -9 °C / 16 °F
Appearance: Clear liquid with a characteristic odour

Note 1: Physical Properties are for reference only and valid as of date of this revision; see loading terminal for specific properties.

Note 2: Hazard Identification: Extremely Flammable, if sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air/vapour mixtures can occur, categorized as Toxic (IBC 2021); See SDS for full list of hazards and precautions.

Transhipment

Prior to arranging transhipment Charterer must agree to Owner's proposed plan. When arranged by the Owner, Owner must ensure that all transhipment vessels comply with the requirements of this cargo handling sheet.

Marpol Details

Marpol Annex: II
IMO Ship Type: 3, must be double hulled
Inland Barges: Double Hull
IMO Pollution Category: Z

IBC 16.2.6:	No
IBC 16.2.9:	No
Pre-Wash Required:	No
Compatibility Group:	USCG Compatibility group 18

Cargo Handling Requirements

N2 Purge Cargo Tanks Prior Loading:	No
N2 Blanket Required:	Yes, PQ requirement; Max 5% O ₂ ; see notes below and Regional Requirements
Adjacent Space Purge:	No
Loading Temperature Range:	Ambient
Transit Temperature Range:	Ambient - 40 °C / 104 °F
Discharge Temperature Range:	Ambient - 40 °C / 104 °F
Maximum Heating Coil Temperature:	Blanked Off
Adjacent Maximum Cargo Temperature:	40 °C / 104 °F

Note 1: 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 ship, at their time, risk, and expense.

Note 2: PQ = Product Quality

Note 3: N2 Blanket Guidance:

- a. O₂ level in tanks to be maintained below 5%
- b. Vessel to maintain a constant nitrogen overpressure of 20 millibars or more during the voyage
- c. DAILY LOG: During the voyage the vessel shall maintain a daily log of the following and the log shall be sent to the Shell Charterers/Planners at the time of discharge.
 1. Tank pressure
 2. O₂ level
 3. Tank Temperature

Regional Requirements

Note 1: US Barge: Coatings – Stainless Steel, Mild Steel, Zinc (No Epoxy); N₂ pad - 5% O₂ after loading, N₂ bottles onboard not required. Vapor Return – Generally yes, but dependent on terminal Air Quality Permit.

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: Stainless steel, zinc, Interline 9001, Jotun Flexline, or Marineline 784 (high density polymer coating)

Note 1: Vessels offered for loading into coated tanks:

- Carrier to verify suitability of coating
- For newly coated tanks, either partially or fully recoated, the tanks must have carried 3 or more cargoes for a total of >90days at >90% full.
- For tanks newly coated with high density polymer coating, consult the coating manufacturer and/or the coating's Resistance guide.
- Tank Coating Condition Questionnaire submitted to Charterers for review prior to fixing a coated vessel.
- Coated tanks to be in very good condition with minimal blistering or breakdown, < 0.5% total tank area
- All blisters to be scraped to hard coating
- All defects to be noted in Survey Report
- Pipelines and fittings to be stainless steel

Banned Prior Cargo: No

Wall Wash Required: Yes; all conducted with Methanol except PH test, which uses DI water

Coated Tanks: WWT conducted by cargo surveyor.

Stainless Steel Tanks: verification of shipboard WWT may be accepted if below specs are met. (Send WWT Verification to the responsible Shell Chemicals charterer/planner and present to cargo surveyor and loading master at loading terminal.)

Wall Wash Test:	Specification	Standard
Appearance	Clear and Free of suspended matter	ASTM D4176
Color Test	< 10 Pt/Co Max	ASTM D1209
Hydrocarbons	Pass	ASTM D1722

Additional WWT for Coated Tanks if Prior Cargo is:

Prior Cargo	Wall Wash Test:	Specification	Standard
Acrylate	PPT	> 30 minutes	ASTM D1363
Oils, Waxes, Veg Oils, Fame	NVM	100 ppm	ASTM D1353
Acids, Alkalis	PH Test	6.9 – 7.1	ASTM E70

Link to: [WWT Verification Form](#)

Safety Information and Incident Reporting

Safety Information:

HSSE information can be found in the SDS or e-SDS.

Incident Reporting:

All incidents should be reported in accordance with regulations and charter party requirements.

International Registered Vessels: If an incident occurs 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.

For additional marine cargo handling advice or information, contact the responsible regional Shell Chemicals Marine Technical Advisor.



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