



Shell Chemicals

Cargo Handling Sheet

Ethanol

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Revision 0

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

Product Details

Product Name:	Ethanol
IMO Product Name:	Ethyl Alcohol
Chemical Family:	Alcohols
Product Code:	002D1764
SDS:	consult Shell charterer/planner

Physical Properties

Density:	794 kg/m ³ (15,0 °C / 59,0 °F)
Kinematic Viscosity:	1,1 mm ² /s (40,0 °C / 104,0 °F)
Vapor Pressure:	16 kPa (38,0 °C / 100,4 °F) 29 kPa (50,0 °C / 122,0 °F)
Boiling Point:	78 °C / 172 °F
Flash Point:	13 °C / 55 °F
Appearance:	Clear liquid, undyed

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: Highly flammable, even with proper grounding and bonding, this material can still accumulate an electrostatic charge; 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:	IBC Chapter 18 cargo; vessel 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 group 20, not compatible with group 1 2 Isocyanates.

Cargo Handling Requirements

N2 Purge Cargo Tanks Prior Loading:	No
N2 Blanket Required:	No; see Notes Below
Adjacent Space Purge:	No
Loading Temperature Range:	Ambient
Transit Temperature Range:	Ambient to 45 °C / 113 °F
Discharge Temperature Range:	Ambient to 45 °C / 113 °F
Maximum Heating Coil Temperature:	Blanked off
Maximum Adjacent Temperature:	45 °C / 113 °F

Note 1: If vessel is required to inert tanks then only N2 will be accepted as an inerting medium.

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

Note 3: Due to wide flammability range, vessel to vessel transfer should be carried out under closed/inerted conditions.

Regional Requirements

Note 1: US Barge: Coatings – Stainless Steel, Mild Steel, Epoxy, Zinc; N2 - not required. Vapor Return – No; Heat – No

Tank Acceptance Requirements

All nominated shipboard cargo handling systems are to be presented clean (residual free), dry, odour 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
Banned Prior Cargo:	No; see note below
Wall Wash Required:	Yes
Wall Wash Specification:	Varies with grade; check with Shell Charterer/Planner

Note 1: Tanks with prior cargoes of monomers must be thoroughly inspected for polymerized product.

Note 2: All lines and drain cocks to be blown with nitrogen to ensure no condensation.

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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