



BSI Standards Publication

Inland navigation vessels — Methanol bunkering

National foreword

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Inland navigation vessels - Methanol bunkering

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méthanol

Fahrzeuge der Binnenschifffahrt - Bunkerung von
Methanol

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European foreword

This document (EN 18071:2025) has been prepared by Technical Committee CEN/TC 15 “Inland navigation vessels”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2026, and conflicting national standards shall be withdrawn at the latest by May 2026.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes CWA 17540:2020.

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Introduction

Methanol also known as methyl alcohol is a polar covalent hydrocarbon fuel that can be made from non-fossil sources and is very clean burning when compared to conventional marine fuels. Therefore methanol is increasingly being used as sustainable fuel for vessels for environmental reasons. Its usage is expected to expand significantly in the future. Therefore, there is a need to standardize the bunkering requirements for inland navigation vessels to a reasonable degree, so that vessel operators have the tools to select vessel fuel providers that meet set safety and fuel quality standards, in order to conduct methanol bunkering operations safely.

This European Standard specifies safety requirements for methanol bunkering within the meaning of European Parliament and Council Directive (EU) 2016/1629 of 14 September 2016 laying down technical requirements for inland waterway vessels.

This document on the bunkering of methanol is based on research outcome of the Workshop CEN/WS 106 'Specification for bunkering of methanol' in which was developed the CWA 17540 'Ships and marine technology – Specification for bunkering of methanol fuelled vessels'. Next to this as a reference is used the existing standard EN ISO 20519 'Ships and marine technology – Specification for bunkering of liquefied natural gas fuelled vessels'.

1 Scope

This document specifies requirements for methanol bunkering transfer systems to and from inland navigation vessels. The various scenarios for the bunker facility operator concern land, truck and vessel (barge). It concerns design, dimensions and technical requirements for the transfer of methanol, including the nozzle, connection, inner and outer flanges and failsafe features.

This document also specifies the process and procedures for the bunkering operations, as well as responsibilities and risk assessment scope, taking into consideration the specific hazards in handling and bunkering methanol fuel. Next to this, the requirement for the methanol provider to provide a bunker delivery note and training and qualification of personnel involved.

This document is not applicable to cargo operations.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13765:2018, *Thermoplastic multi-layer (non-vulcanized) hoses and hose assemblies for the transfer of hydrocarbons, solvents and chemicals - Specification*

EN 12115:2021, *Rubber and thermoplastics hoses and hose assemblies for liquid or gaseous chemicals - Specification*

EN 1092-1:2018, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 1: Steel flanges*

ASTM F1122-22, *Standard specification for Quick Disconnect Couplings (6 in. NPS and smaller)*

EN 14420-6:2013, *Hose fittings with clamp units - Part 6: TW tank truck couplings*

EN IEC 60309-1, *Plugs, fixed or portable socket-outlets and appliance inlets for industrial purposes - Part 1: General requirements*

ES-TRIN:2025, *European Standard for laying down Technical Requirements for Inland Navigation vessels*

ES-QIN, *European Standard for Qualifications in Inland Navigation*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

bunker

vessel fuel primarily used to produce power for propulsion, heating and generating electricity through combustion in machinery and equipment onboard

3.2

bunkering

transfer of bunker from land-based or floating facilities into a vessel's permanent tanks or connection of portable tanks to the vessel's fuel supply system

3.3

bunkering agreement

contractual agreement applying to a bunker transfer

3.4

bunker delivery note

BDN

official document from the bunker facility operator providing information on the quantity, quality and type of the fuel delivered to the vessel

3.5

bunkering operation supervisor

qualified person from the receiving vessel and at the methanol supplying facility (truck, train, bunker vessel or bunker terminal) assigned with overall responsibility for bunkering operations

3.6

manifold watch

qualified person from the receiving vessel tasked with monitoring the transfer system

3.7

hose watch

qualified persons nominated by the bunker facility operator (truck, train, bunker vessel or bunker terminal) to maintain a watch on the fuel supply side of the transfer system

3.8

bunker vessel

barge or tanker used for the delivery of fuel to the receiving vessel

3.9

bunker terminal

fixed facility on or near shore which can deliver fuel to the receiving vessel

3.10

truck

road tanker used for the delivery of fuel to the receiving vessel

3.11

train

rail vehicle used for the delivery of fuel to the receiving vessel

3.12

inspection

process in which the design and the condition of a vessel is evaluated to determine its compliance with rules and standards

3.13

inspection body

competent authority assisting in the uniform and effective implementation of inland vessel navigation codes and regulations, in charge to determine the compliance of the vessel with the requirements

3.14**controlled zone**

area extending from the bunker manifold on the receiving vessel to the supply source (road tanker, bunker vessel or bunker terminal) during the bunker operation which can have restrictions in place

3.15**safety dry break-away coupling****SBC**

coupling that provides a safe release and isolation between the receiving vessel and the delivering vessel or facility with a minimum of spill so as to protect the bunker equipment from advertent excessive loads (pull away accidents)

3.16**facility**

infrastructure used for storage and/or transfer of methanol

3.17**emergency shut down system****ESD**

system that safely and effectively stops the transfer of fuel between the receiving vessel and the delivering vessel or shore-based facility

3.18**safety management system****SMS**

set of procedures an organisation needs to follow in order to meet its safety objectives

3.19**safety data sheet****SDS**

detailed information bulletins prepared by the manufacturer or importer of a chemical that describes the physical and chemical properties, physical and health hazards, routes of exposure, precautions for safe handling and use, emergency and first-aid procedures, and control measures

3.20**methanol transfer system**

equipment between the delivering facility and the bunker manifold on the receiving vessel

Note 1 to entry: Such equipment can include vessel to vessel transfer hoses, transfer arms, safety dry break-away coupling (SBC), flanges, couplings. In addition, this includes the ESD vessel/shore or vessel/vessel link used to connect the receiving and supplying ESD systems.

3.21**technical standard**

standard that prescribe requirements for one or more of the following: operations, equipment design/fabrications or testing methodology

3.22**transfer arm**

bunker system of rigid pipe sections connected by swivelling joints, often combined with flexible hose sections that together comprise an articulated system for transferring fuel to a vessel being bunkered