

Methanol fuel specification

Methanol is a clear, colourless, water soluble liquid which boils at 65°C. It is also known as methyl alcohol and is often abbreviated MeOH. It is most commonly produced from natural gas but can also be made from bio-feed stocks and gasification of coal.

Designation	Unit	Limit	Value	Test method reference (latest edition to be applied)
Lower calorific value (LCV)	MJ/kg	Min.	19	
Methanol (CH ₃ OH)	% w/w	Min.	95	IMPCA 001-14
Ethanol (C ₂ H ₅ OH)	% w/w	Max.	5	IMPCA 001-14
Water (H ₂ O)	% w/w	Max.	5*	ASTM E1064-12**
Acetone (CH ₃ COCH ₃)	mg/kg	Max.	30	IMPCA 001-14
Chloride as Cl ⁻	mg/kg	Max.	0.5	IMPCA 002-98
Acidity as acetic acid	mg NaOH/kg sample	Max.	30	ASTM D1613-17
Sulphur (S)	mg/kg	Max.	0.5	ASTM D3961-98 or ASTM D5453-12
Appearance	N/A	Clear, uncoloured and free of suspended solids		IMPCA 003-98
Sampling	N/A	IMPCA Methanol Sampling Methods, International Methanol Producers & Consumers Association (IMPCA), www.im-pca.eu , October 2014.		

**ASTM E1064 is valid up to max 2% water.

Table 1: Guiding methanol fuel specification. Values refer to the methanol as delivered to the ship.

Sampling and test methods of methanol shall be in accordance with applicable methanol sampling and test methods from standard organisations such as IMPCA [2, 3], ASTM or ISO. Other methods can also apply.