



MARITIME AND PORT AUTHORITY OF SINGAPORE

PORT MARINE CIRCULAR  
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Bunker Suppliers / Bunker Craft Operators  
Testing Laboratories  
Shipping Community

## **SUPPLY OF BIOFUEL WITHIN THE PORT OF SINGAPORE TO VESSELS**

1. This circular serves to inform all bunker suppliers and bunker craft operators licensed by the Maritime and Port Authority of Singapore (MPA) on the requirements to supply biofuel within the Port of Singapore to vessels. The intent is to support trials conducted by vessels as the shipping industry explores the carbon reduction potential of biofuel. This circular does not endorse any particular methodology to account for carbon reduction.
2. MPA has developed a framework to allow licensed bunker suppliers to supply biofuel within the Port of Singapore to support trials conducted by vessels provided that the conditions of the framework are adhered to. The conditions are appended in the Annex, which is also available at [MPA's website](#).
3. For the supply of biofuel to support trials on vessels, the bunker supplier is encouraged to supply International Sustainability and Carbon Certification (ISCC) certified biofuel.

### **Quality of Biofuel**

4. All bunker fuels supplied in the Port of Singapore shall meet ISO 8217 standards. The ISO 8217 is being revised to include additional requirements for blends of distillate and residual fuel oils with fatty acid methyl ester(s). Therefore, MPA in consultation with relevant industry experts, has developed a provisional national standard on specifications of marine biofuel (WA 2:2022). This national standard has been developed under the purview of the Chemical Standards Committee (CSC), a committee under the Singapore Standards Council.

5. Bunker suppliers, bunker craft operators, bunker surveyors, shipowners, buyers, fuel oil testing laboratories are encouraged to make use of this standard (WA 2:2022).

6. The Singapore Standards can be purchased at the following address:

TOPPAN LEEFUNG PTE. LTD

1 KIM SENG PROMENADE, #18-01 GREAT WORLD CITY EAST TOWER  
SINGAPORE 237994

Tel: (65) 6826 9691

Fax: (65) 6820 3341

Email: [singaporestandardseshop@toppanleefung.com](mailto:singaporestandardseshop@toppanleefung.com)

Website: [www.singaporestandardseshop.sg](http://www.singaporestandardseshop.sg)

7. Should you have any queries, please write to us at [bsd@mpa.gov.sg](mailto:bsd@mpa.gov.sg) or [shipping@mpa.gov.sg](mailto:shipping@mpa.gov.sg).

CAPT DAKNASH GANASEN  
SENIOR DIRECTOR (OPERATIONS & MARINE SERVICES)  
for CHIEF EXECUTIVE  
MARITIME AND PORT AUTHORITY OF SINGAPORE

**Conditions to supply biofuel within the Port of Singapore to support trials of vessels**

- a. The bunker supplier shall ensure that the mass flow meter (MFM) installed on the bunker craft is intended for the measurement of biofuel as supported by the MFM vendor with the uncertainty of measurement at not more than 0.5%;
- b. The biofuel supplied shall meet the density and kinematic viscosity specification requirements stated within the MFM approval letter issued by MPA for the bunker craft;
- c. The bunker supplier<sup>1</sup> shall ensure that the flag Administration, and Class Society of the bunker craft approve or have no objection to the loading, carriage, and delivery of the biofuel onboard the bunker barge. In accordance with MSC-MEPC.2/Circ.17, the carriage requirements for biofuel<sup>2</sup> blends<sup>3</sup> are assigned based on their volumetric composition, as follows:
  - i. When the biofuel blend contains  $\geq 75\%$  of a MARPOL Annex I cargo, it is subject to MARPOL Annex I<sup>4</sup>;
  - ii. Biofuel blends containing  $> 1\%$  but  $< 75\%$  of a MARPOL Annex I cargo are subject to MARPOL Annex II, with the carriage requirements set out in chapter 17 of the IBC Code;
  - iii. Biofuels blended with  $\leq 1\%$  of a MARPOL Annex I cargo are not considered as blends and are therefore to be shipped in accordance with MARPOL Annex II, under the appropriate product entry in the IBC Code;
- d. The bunker supplier shall also ensure that Standards and Investigation – Marine Fuel (SIMF) (i.e. [bsd@mpa.gov.sg](mailto:bsd@mpa.gov.sg)) is informed of the biofuel bunker delivery. The monthly statement on all bunker supplies made by the bunker

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<sup>1</sup> The company with a valid bunker supplier's licence which contractually agrees with the buyer to deliver the product and issues the BDN.

<sup>2</sup> Biofuels are ethyl alcohol, fatty acid methyl esters (FAME) and vegetable oils (triglycerides), as identified in chapters 17 and 18 of the IBC Code or the MEPC.2/Circ.27 (Annex 11).

<sup>3</sup> Biofuel blends are mixtures resulting from the blending of those biofuels identified in footnote 2 with a MARPOL Annex I cargo.

<sup>4</sup> When carrying biofuel blends as described in paragraph 4.1.1, Oil Discharge Monitoring Equipment (ODME type-approved – see resolution MEPC.108(49), as amended shall be in compliance with regulation 31 of MARPOL Annex I and approved for the mixture being transported. When considering the deck fire-fighting system requirements of SOLAS chapter II-2, regulations 1.6.1 and 1.6.2, when carrying biofuel blends containing more than 5% ethyl alcohol, then alcohol resistant foams should be used.

supplier shall include the bunker supply of biofuel (according to the fuel type and grade of the conventional fuel, e.g. LSFO180, MFO380, MGO);

- e. The supply of biofuel as bunker should be sufficiently covered in the commercial agreement between bunker supplier and bunker buyer;
- f. The bunker supplier shall confirm that Master/owners of the receiving vessel has received the necessary exemption from the relevant flag Administration to conduct trials for the development of ship emission reduction<sup>5</sup>, prior to the delivery;
- g. No blending shall be carried out on board the bunker craft within the Port of Singapore;
- h. The Certificate of Quality (COQ) shall be issued by the loading facility only and made available prior to the delivery of the biofuel in Singapore. Specifications shall comply with the specifications of ISO 8217:2017 (with the exception of clause 5.1 of ISO 8217:2017 on FAME levels) which will be in accordance with the contractual agreement;
- i. All loading operations shall be carried out in accordance with all applicable statutory and port/ coastal State requirements (e.g. MSC-MEPC.2/Circ.17 – 2019 Guidelines for the Carriage of Blends of Biofuels and MARPOL Annex I Cargoes);
- j. The biofuel blend<sup>6</sup> shall also be tested for FAME and the results shall be **incorporated within** the COQ;
- k. The COQ shall be sent to SIMF (i.e. [bsd@mpa.gov.sg](mailto:bsd@mpa.gov.sg)) a minimum of one day prior to the biofuel bunker delivery. Any additional information on the biofuel shall be provided to MPA upon request;
- l. The product name of the biofuel product supplied should be filled accordingly in the BDN (e.g. VLSFO RMG 380 B20); and
- m. The bunker supplier shall maintain records to all relevant documentation.

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<sup>5</sup> MARPOL Annex VI Reg. 3.2

<sup>6</sup> Please refer to footnote 3