

ICS 75.160.20
CCS E 31



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 12692.2-2021

Replacing GB/T 12692.2-2021

**Products from petroleum, synthetic and renewable sources -
Fuels (class F)classification - Part 2: Categories of marine fuels
(English Translation)**

Issued on: March 31, 2026

Implemented on: October 1, 2026

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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4.1 to 4.3 correspond to Chapter 4 of ISO 8216-1.2024.

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1. Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 2 of GB/T 12692 "Classification of Petroleum Product Fuels (Category F)". GB/T 12692 has published the following...

part.

---Part 1. General Provisions;

---Part 2. Types of Marine Fuel Oils;

---Part 3. Fuels for Industrial and Marine Gas Turbines;

---Part 4. Liquefied Petroleum Gas (L Group)

This document supersedes GB/T 12692.2-2021 "Classification of Petroleum Products Fuels (Category F) Part 2. Marine Fuel Oil Varieties", and is consistent with...

Compared with GB/T 12692.2-2021, apart from structural adjustments and editorial changes, the main technical changes are as follows.

a) The term and definition of "fatty acid methyl esters" have been added (see Chapter 3);

(b) The classification of marine fuel oils has been revised, subdivided into Table 1 "Petroleum-based Marine Fuel Oil Classification" and Table 2 "Bio-based Marine Fuel Oil Classification".

(See Tables 1 and 2, Table 1 in the 2021 edition);

c) Added sulfur content designations for DM grade distillate fuels and sulfur and FAME

content designations for DF grade distillate fuels (see...).

4.2);

d) The classification of residual fuels has been changed, subdivided into two categories. RM and RF. A sulfur content designation has been added for RM grade residual fuels.

The sulfur content and FAME content designation for RF grade residual fuels (see 4.2, 2021 edition of 4.2);

e) The product categories for petroleum-based and bio-based marine fuel oils have been changed (see Tables 1 and 2, Table 1 in the 2021 edition);

f) Requirements for classifying petroleum-based and bio-based marine fuel oils according to sulfur content have been added (see Tables 1 and 2);

g) The regulations regarding the FAME content in petroleum-based and bio-based marine fuel oils have been amended (see Tables 1 and 2, 2021).

Table 1 of the version);

h) Added the use of common domestic and international commercial biofuel oil grades to indicate the maximum FAME content in the fuel (see

Table 2).

This document modifies and adopts ISO 8216-1:2024 "Petroleum products and products derived from synthetic and renewable feedstocks - fuels (Category F)"

Category 1. Marine fuels.

This document has undergone the following structural adjustments compared to ISO 8216-1:2024.

4.1 to 4.3 correspond to Chapter 4 of ISO 8216-1:2024.

The technical differences between this document and ISO 8216-1:2024, and the reasons therefor, are as follows.

---The scope has been expanded to include the classification and labeling of marine fuel oil products (see Chapter 1) to conform to the format of standardized documents;

---The definition of the term "fatty acid methyl ester" has been changed (see 3.1, ISO 8216-1:2024) to conform to the raw materials of FAME in my country.

The situation in countries where waste oil can be used;

---Added sulfur content designations for DM grade distillate fuels and sulfur and FAME content designations for DF grade distillate fuels (see...)

4.2), to clearly reflect the sulfur content and FAME content of the distillate fuel;

---The sulfur content designation for RM grade residual fuels has been changed, and sulfur and FAME content designations for RF grade residual fuels have been added.

The number (see 4.2, Chapter 4 of ISO 8216-1.2024) is used to clearly reflect the sulfur content and FAME content of the residual fuel.

---The classification of marine fuels in Table 1 has been revised, now subdivided into Table 1 Petroleum-based Marine Fuel Oil Classification and Table 2 Bio-based Marine Fuel Oil Classification.

Classification (see Tables 1 and 2, Table 1 of ISO 8216-1.2024) to facilitate low-carbon bio-based marine fuel oils to obtain carbon premiums and market access.

Differentiated management of venues;

---The sulfur content classification for petroleum-based marine distillate fuels and biofuels for marine use has been added (see Tables 1 and 2) to clearly reflect the distillate content.

The sulfur content of the fuel;

---The sulfur content (mass fraction) requirement for high-sulfur varieties of petroleum-based marine residual fuels has been changed; the letter H has been changed to 3.5 (see Table 1).

Table 1 of ISO 8216-1.2024 clearly indicates that the sulfur content (mass fraction) of high-sulfur grade residual fuels is not greater than

3.5%;

---The regulations regarding FAME content in petroleum-based and bio-based marine fuel oils have been revised (see Tables 1 and 2).

Table 1 of ISO 8216-1.2024 clarifies the permissible FAME content range for the two fuels mentioned above;

---Added the use of commercially available biofuel grades from both domestic and international sources to indicate the maximum FAME content in the fuel (see...).

Table 2 (Table 1 of ISO 8216-1.2024) reflects the conventional representation of biofuels for shipboards both domestically and internationally.

The following editorial changes have been made to this document.

---To maintain consistency with ISO 8216-1.2024, the standard title has been changed to "Petroleum products and petroleum products derived from synthetic and renewable feedstocks".

Product Fuel (Category F) Classification Part 2. Marine Fuel Oil Varieties;

---Note added regarding the FAME content of DF-grade distillate fuels and RF-grade

residue fuels (see 4.2);

---An example of the complete product form has been added (see 4.3);

---ISO 8681 has been replaced by GB/T 498, which is used for informational purposes.

---ISO 8216-99 has been replaced by GB/T 12692.1, which is cited in the informational reference.

---ISO 8217 has been replaced with GB 17411, which is used as a reference.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Petroleum Products and Lubricants (SAC/TC280).

Introduction

GB/T 12692, "Classification of Petroleum Products Fuels (Category F)," currently consists of four parts based on the actual use of the products.

---Part 1.General Provisions;

---Part 2.Types of Marine Fuel Oils;

---Part 3.Fuels for Industrial and Marine Gas Turbines;

---Part 4.Liquefied Petroleum Gas (L Group)

In order to standardize the classification of fuel types used by seagoing vessels, inland waterway vessels, and river-sea direct vessels navigating within my country's administrative jurisdiction, and to appropriately...

In light of the current supply and demand of low-sulfur marine fuel oil and biofuel oil in the marine fuel oil market, this paper addresses the international standard ISO 8216-1 "Petroleum..."

The development of the classification of marine fuels (Category F) and products derived from synthetic and renewable feedstocks, Part 1.Marine Fuels (English version).

Following up on this, this document was developed based on ISO 8216-1.2024.

With the requirements of environmental and carbon emission regulations such as the International Maritime Organization (IMO) 2020 Sulfur Cap and the IMO Net Zero Framework...

With increasingly stringent regulations, the international market for marine fuel is rapidly shifting from high-sulfur fuel oil with a sulfur content (mass fraction) greater than 0.50% to fuel oil with lower sulfur content.