



Designation: D7467 – 23

Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20)¹

This standard is issued under the fixed designation D7467; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This specification covers fuel blend grades of 6 % to 20 % by volume biodiesel with the remainder being a light middle or middle distillate diesel fuel, collectively designated as B6 to B20. These grades are suitable for various types of diesel engines.

1.1.1 The biodiesel component of the blend shall conform to the requirements of Specification [D6751](#). For grade B6-B20 S15 the biodiesel component shall be grade [D6751](#) S15 LM, except as allowed under [6.1.1.1](#) for S15 fuels used in diesel engines without Selective Catalytic Reduction (SCR) or Diesel Particulate Filter (DPF) aftertreatment technology. The remainder of the fuel shall be a light middle or middle distillate grade diesel fuel conforming to Specification [D975](#) grades No. 1-D and No. 2-D of any sulfur level specified with the following exceptions. The light middle or middle distillate grade diesel fuel whose sulfur level, aromatic level, cetane, or lubricity falls outside of Specification [D975](#) may be blended with biodiesel meeting Specification [D6751](#), provided the finished mixtures meet this specification.

1.1.2 The fuel sulfur grades are described as follows:

1.1.2.1 *Grade B6 to B20 S15*—A fuel with a maximum of 15 ppm sulfur.

1.1.2.2 *Grade B6 to B20 S500*—A fuel with a maximum of 500 ppm sulfur.

1.1.2.3 *Grade B6 to B20 S5000*—A fuel with a maximum of 5000 ppm sulfur.

1.2 This specification prescribes the required properties of B6 to B20 biodiesel blends at the time and place of delivery. The specification requirements may be applied at other points in the production and distribution system when provided by agreement between the purchaser and the supplier.

1.2.1 Nothing in this specification shall preclude observance of federal, state, or local regulations that may be more restrictive.

NOTE 1—The generation and dissipation of static electricity can create problems in the handling of distillate diesel fuel oils. For more informa-

¹ This specification is under the jurisdiction of ASTM Committee [D02](#) on Petroleum Products, Liquid Fuels, and Lubricants and is the direct responsibility of Subcommittee [D02.E0](#) on Burner, Diesel and Non-Aviation Gas Turbine Fuels.

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tion on this subject, see Guide [D4865](#).

1.3 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

[D56](#) Test Method for Flash Point by Tag Closed Cup Tester

[D86](#) Test Method for Distillation of Petroleum Products and Liquid Fuels at Atmospheric Pressure

[D93](#) Test Methods for Flash Point by Pensky-Martens Closed Cup Tester

[D129](#) Test Method for Sulfur in Petroleum Products (General High Pressure Decomposition Device Method)

[D130](#) Test Method for Corrosiveness to Copper from Petroleum Products by Copper Strip Test

[D445](#) Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and Calculation of Dynamic Viscosity)

[D482](#) Test Method for Ash from Petroleum Products

[D524](#) Test Method for Ramsbottom Carbon Residue of Petroleum Products

[D613](#) Test Method for Cetane Number of Diesel Fuel Oil

[D664](#) Test Method for Acid Number of Petroleum Products by Potentiometric Titration

[D975](#) Specification for Diesel Fuel

[D976](#) Test Method for Calculated Cetane Index of Distillate Fuels

[D1266](#) Test Method for Sulfur in Petroleum Products (Lamp Method)

[D1319](#) Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

*A Summary of Changes section appears at the end of this standard