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Standard Specification for Triglyceride Burner Fuel¹

This standard is issued under the fixed designation D7666; 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 two grades of burner fuel consisting of triglycerides and naturally occurring constituents of triglycerides including monoglycerides, diglycerides, and free fatty acids and distinguished by the pour point. The grade designation (TBF) identifies them as triglyceride burner fuels.

1.2 The triglyceride burner fuels specified are intended for use in commercial or industrial air or steam-atomized fuel oil burning equipment manufactured from materials compatible with fuels having an acid number as specified in [Table 1](#) and under various climatic and operating conditions for the purposes of heat generation. The fuels specified herein are not intended for blending with conventional fuel oils for this purpose. They are not intended for use in burners <0.32 GJ/h (0.3×10^6 BTU/h) such as residential burners or small pressure atomization burners nor are they intended for use in internal combustion engines or marine applications.

NOTE 1—For information on the significance of the terminology and test methods used in this specification, see [Appendix X1](#).

1.3 This specification does not address the frequency with which any particular test shall be run.

1.4 Nothing in this specification shall preclude observance of national or local regulations, which can be more restrictive.

1.5 The *text* of this standard references notes and footnotes that provide explanatory material and shall not be considered as requirements of the standard. The *table* in this standard references footnotes, and these are to be considered as requirements of the standard.

1.6 The values given in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.7 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appro-*

priate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.

1.8 *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

- D93 Test Methods for Flash Point by Pensky-Martens Closed Cup Tester
- D95 Test Method for Water in Petroleum Products and Bituminous Materials by Distillation
- D97 Test Method for Pour Point of Petroleum Products
- D128 Test Methods for Analysis of Lubricating Grease
- D240 Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter
- D445 Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and Calculation of Dynamic Viscosity)
- D473 Test Method for Sediment in Crude Oils and Fuel Oils by the Extraction Method
- D482 Test Method for Ash from Petroleum Products
- D664 Test Method for Acid Number of Petroleum Products by Potentiometric Titration
- D974 Test Method for Acid and Base Number by Color-Indicator Titration
- D1266 Test Method for Sulfur in Petroleum Products (Lamp Method)
- D1298 Test Method for Density, Relative Density, or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method
- D1552 Test Method for Sulfur in Petroleum Products by High Temperature Combustion and Infrared (IR) Detection or Thermal Conductivity Detection (TCD)
- D1796 Test Method for Water and Sediment in Fuel Oils by the Centrifuge Method (Laboratory Procedure)

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.P0 on Recycled Products.

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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.