



Designation: D7261 – 17

Standard Test Method for Determining Water Separation Characteristics of Diesel Fuels by Portable Separometer¹

This standard is issued under the fixed designation D7261; 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 test method covers a rapid portable means for field and laboratory use to rate the ability of diesel fuels (both neat and those containing additives) to release entrained or emulsified water when passed through fiberglass coalescing material.

1.2 This test method is applicable to diesel fuels such as Specification **D975** Grade No. 1-D and Grade No. 2-D of all sulfur levels, Specification **D7467** biodiesel blends B6-B20, and MIL-DTL-16884, naval distillate fuel (NATO F-76).

NOTE 1—This test method is similar to Test Method **D3948** which is applicable to aviation turbine fuels.

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

1.5 *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

D975 Specification for Diesel Fuel Oils

D1193 Specification for Reagent Water

D3948 Test Method for Determining Water Separation Char-

acteristics of Aviation Turbine Fuels by Portable Separometer

D4057 Practice for Manual Sampling of Petroleum and Petroleum Products

D4176 Test Method for Free Water and Particulate Contamination in Distillate Fuels (Visual Inspection Procedures)

D4177 Practice for Automatic Sampling of Petroleum and Petroleum Products

D4306 Practice for Aviation Fuel Sample Containers for Tests Affected by Trace Contamination

D4860 Test Method for Free Water and Particulate Contamination in Middle Distillate Fuels (Clear and Bright Numerical Rating)

D6300 Practice for Determination of Precision and Bias Data for Use in Test Methods for Petroleum Products and Lubricants

D6426 Test Method for Determining Filterability of Middle Distillate Fuel Oils

D7224 Test Method for Determining Water Separation Characteristics of Kerosine-Type Aviation Turbine Fuels Containing Additives by Portable Separometer

D7467 Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20)

2.2 Military Standard:

MIL-DTL-16884 Fuel, Naval Distillate ³

3. Terminology

3.1 For definitions of terms used in this test method that are not shown below, refer to Test Methods **D3948** and **D7224**.

3.2 Definitions:

3.2.1 *reference fluid, n—in MSEP⁴ and DSEP⁴, [diesel separability] water separability tests* a reference fluid base to which a prescribed quantity of a known surface active agent has been added.

3.2.1.1 *Discussion*—The known surface active agent is typically bis-2-ethylhexyl sodium sulfosuccinate, commonly referred to as AOT, dissolved in toluene.

¹ This test method is under the jurisdiction of ASTM Committee **D02** on Petroleum Products, Liquid Fuels, and Lubricants and is the direct responsibility of Subcommittee **D02.14** on on Stability, Cleanliness and Compatibility of Liquid Fuels.

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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.

³ Available for electronic download at ASSIST Quick Search (<http://quicksearch.dla.mil>).

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