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.

Designation: D665 – 19

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Standard Test Method for Rust-Preventing Characteristics of Inhibited Mineral Oil in the Presence of Water[1]

This standard is issued under the fixed designation D665; 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.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope*

1.1 This test method covers the evaluation of the ability of inhibited mineral oils, particularly steam-turbine oils, to aid in preventing the rusting of ferrous parts should water become mixed with the oil. This test method is also used for testing other oils, such as hydraulic oils and circulating oils. Provision is made in the procedure for testing heavier-than-water fluids.

NOTE 1—For synthetic fluids, such as phosphate ester types, the plastic holder and beaker cover should be made of chemically resistant material suitable for the type of fluid tested.

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

1.3 *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.* For specific warning statements, see 7.4 – 7.6.

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]

A108 Specification for Steel Bar, Carbon and Alloy, Cold-Finished

A240/A240M Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications

D91 Test Method for Precipitation Number of Lubricating Oils

D1193 Specification for Reagent Water

D2422 Classification of Industrial Fluid Lubricants by Viscosity System

D3603 Test Method for Rust-Preventing Characteristics of Steam Turbine Oil in the Presence of Water (Horizontal Disk Method)

D4057 Practice for Manual Sampling of Petroleum and Petroleum Products

E1 Specification for ASTM Liquid-in-Glass Thermometers

2.2 *Other Documents:*

Motor Fuels, Section I, Annex A2, Table 32, Reference Materials and Blending Accessories[3]

Specifications-IP Standard Thermometers, Vol 2, Appendix A[4]

Specifications for IP Standard Reference Liquids, Appendix B[4]

[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.C0.02 on Corrosion and Water/Air Separability.

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This standard has been developed through the cooperative effort between ASTM International and the Energy Institute, London. The EI and ASTM International logos imply that the ASTM International and EI standards are technically equivalent, but does not imply that both standards are editorially identical.

[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] See 1996 *Annual Book of ASTM Standards*, Vol 05.04.

[4] *Annual Book of IP Standard Methods for Analysis and Testing of Petroleum and Related Products*, Vol 2. Available from Energy Institute, 61 New Cavendish St., London, WIG 7AR, U.K.

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

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