~~Designation:D847–96 (Reapproved 2000)~~ Designation: D 847 – 08

Standard Test Method for Acidity of Benzene, Toluene, Xylenes, Solvent Naphthas, and Similar Industrial Aromatic Hydrocarbons[1]

This standard is issued under the fixed designation D 847; 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 Department of Defense.

1. Scope*

1.1 This test method is intended for the detection of acidity and for the quantitative determination of acidity of benzene, toluene, xylenes, solvent naphthas, and similar industrial aromatic hydrocarbons.

~~1.2The following applies to all specified limits in this test method: for purposes of determining conformance with this test method, an observed value or a calculated value shall be rounded off "to the nearest unit" in the last right-hand digit used in expressing the specification limit, in accordance with the rounding-off method of Practice E29~~

1.2 In determining the conformance of the test results using this method to applicable specifications, results shall be rounded off in accordance with the rounding-off method of Practice E 29.

~~1.3~~

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 and health practices and determine the applicability of regulatory limitations prior to use.* For specific hazard statements see Section 8.

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D 1193 Specification for Reagent Water

D 3437 Practice for Sampling and Handling Liquid Cyclic Products

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

2.2 *Other Documents:*

~~OSHA Regulations, 29CFR, Paragraphs 1910.1000 and 1910.1200~~ OSHA Regulations, 29CFR paragraphs 1910.1000 and 1910.1200[3]

3. Terminology

3.1 *Definitions:*

3.1.1 ~~*acidity*~~acidity, *n*—the number of milligrams of sodium hydroxide consumed when 100 mL of the specimen are titrated under the conditions prescribed in this test method.

3.1.2 ~~*acid reaction*~~acid reaction, *n*—a characteristic of materials producing the acid-color of the indicator used under the conditions prescribed in this test method.

3.1.3 ~~*alkaline or basic reaction*~~alkaline or basic reaction, *n*—a characteristic of the materials producing the alkali-color of the indicator used under the conditions prescribed in this test method.

4. Summary of Test Method

4.1 The acidity of aromatic hydrocarbons is detected and determined quantitatively using a sodium hydroxide titration and a color change in a phenolphthalein indicator.

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[1] This test method is under the jurisdiction of ASTM Committee ~~D-16~~D16 on Aromatic Hydrocarbons and Related Chemicals and is the direct responsibility of Subcommittee ~~D16.0A~~D16.01 on Benzene, Toluene, Xylenes, Cyclohexane~~,~~ and Their Derivatives.

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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 ~~, Vol 11.01.~~*volume information, refer to the standard's Document Summary page on the ASTM website.

~~[3] Annual Book of ASTM Standards, Vol 06.04.~~

[3] Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, http://www.access.gpo.gov.

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