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An American National Standard

Standard Methods of Testing Detergent Alkylate[1]

This standard is issued under the fixed designation D 1569; 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 These test methods cover the various test methods that are applicable to alkylbenzene in order to evaluate those properties pertinent to the characterization of the alkylbenzene with respect to its suitability for desired uses.

NOTE 1—Detergent alkylate comprises alkylbenzenes prepared by varying processes, of varying alkyl chain configuration and length. The alkylate is sulfonated for surfactant use, the largest application being in detergent products. Careful control of detergent alkylate characteristics is desired, for along with sulfonation procedure, variations of the sulfonate can ensue that may result in either desirable or undesirable end-use properties.

1.2 *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.*

2. Referenced Documents

2.1 *ASTM Standards:*

D 88 Test Method for Saybolt Viscosity[2]

D 92 Test Method for Flash and Fire Points by Cleveland Open Cup[3]

D 156 Test Method for Saybolt Color of Petroleum Products (Saybolt Chromometer Method)[3]

D 270 Methods of Sampling Petroleum and Petroleum Products[4]

D 445 Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Viscosity)[3]

D 484 Specification for Hydrocarbon Drycleaning Solvents[5]

D 611 Test Method for Aniline Point and Mixed Aniline Point of Petroleum Products and Hydrocarbon Solvents[3]

D 848 Test Method for Acid Wash Color of Industrial Aromatic Hydrocarbons[6]

D 891 Test Methods for Specific Gravity, Apparent, of Liquid Industrial Chemicals[7]

D 1133 Test Method for Kauri-Butanol Value of Hydrocarbon Solvents[6]

D 1159 Test Method for Bromine Number of Petroleum Distillates and Commercial Aliphatic Olefins by Electrometric Titration[3]

D 1193 Specification for Reagent Water[8]

D 1218 Test Method for Refractive Index and Refractive Dispersion of Hydrocarbon Liquids[3]

D 1364 Test Method for Water in Volatile Solvents (Fischer Reagent Titration Method)[6]

3. Purity of Reagents

3.1 *Purity of Reagents*—Reagent grade chemicals shall be used in all tests. Unless otherwise indicated, it is intended that all reagents shall conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available.[9] Other grades may be used, provided it is first ascertained that the reagent is of sufficiently high purity to permit its use without lessening the accuracy of the determination.

3.2 Unless otherwise indicated, references to water shall be understood to mean reagent water conforming to Specification D 1193.

4. Sampling

4.1 Unless otherwise indicated in a specific test method, sample the material in accordance with Methods D 270, with especial application of Sections 41 and 42 pertaining to industrial aromatic hydrocarbons.

[1] These test methods are under the jurisdiction of ASTM Committee D-12 on Soaps and Other Detergents and is the direct responsibility of D12.12 on Analysis of Soaps and Synthetic Detergents.

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[2] *Annual Book of ASTM Standards,* Vol 04.04.

[3] *Annual Book of ASTM Standards,* Vol 05.01.

[4] Discontinued; see *1984 Annual Book of ASTM Standards,* Vol 05.01.

[5] Discontinued; see *1982 Annual Book of ASTM Standards,* Part 23.

[6] *Annual Book of ASTM Standards,* Vol 06.04.

[7] *Annual Book of ASTM Standards,* Vol 15.05.

[8] *Annual Book of ASTM Standards,* Vol 11.01.

[9] *Reagent Chemicals, American Chemical Society Specifications,* American Chemical Society, Washington, DC. For suggestions on the testing of reagents not listed by the American Chemical Society, see *Analar Standards for Laboratory Chemicals,* BDH Ltd., Poole, Dorset, U.K., and the *United States Pharmacopeia and National Formulary,* U.S. Pharmacopeial Convention, Inc. (USPC), Rockville, MD.

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