



Designation: D3437 – 15 (Reapproved 2022)

Standard Practice for Sampling and Handling Liquid Cyclic Products¹

This standard is issued under the fixed designation D3437; 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 practice covers procedures for sampling and handling several liquid cyclic products. These specifically cover liquids at ambient temperature and include benzene, toluene, xylenes, cyclohexane, styrene, pyridine, ethylbenzene, isopropylbenzene, and alpha-methylstyrene in a manner which represents and preserves product quality.

1.2 Any person sampling or handling these products should consult the applicable Safety Data Sheet (SDS) for specific first aid instructions and information on the proper equipment to have available for use in the event of personal contact or exposure.

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.* For specific hazard statements, see Sections 3, 4, 5, 6 and 7 and an appropriate SDS.

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

D56 Test Method for Flash Point by Tag Closed Cup Tester

¹ This practice is under the jurisdiction of ASTM Committee D16 on Aromatic, Industrial, Specialty and Related Chemicals and is the direct responsibility of Subcommittee D16.08 on Handling and Sampling Aromatic and Cyclic Hydrocarbons.

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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.

D850 Test Method for Distillation of Industrial Aromatic Hydrocarbons and Related Materials

D3505 Test Method for Density or Relative Density of Pure Liquid Chemicals

E300 Practice for Sampling Industrial Chemicals

2.2 *American National Standards Institute Standard:*

Z 288.1 Flammable and Combustible Liquids Code³

2.3 *API Document:*⁴

RP-500A Classification of Locations for Electrical Installations in Petroleum Refineries⁴

2.4 *Other Documents:*

OSHA Regulations, 29 CFR paragraphs 1910.1000 and 1910.2000⁵

OSHA Benzene Standard, 29 CFR 1910.1028⁵

U.S. DOT Regulations, 49 CFR Transportation Subchapter C, Parts 171-180⁵

DOT/USCG 46 CFR Subchapter O, Part 171⁵

3. Significance and Use

3.1 This practice is issued to provide information useful in establishing sampling and handling procedures. It is expected that this information will only be utilized in conjunction with an existing health and safety program and consultation with the appropriate SDS. The information provided herein cannot be used as a substitute for expert safety and medical advice, but rather as a supplement to such advice.

4. Description of Products (See Table 1)

4.1 These liquids are marketed in different grades of purity so the physical properties may vary slightly.

4.2 The products listed in Table 1 are classified by the Department of Transportation as flammable liquids, and containers must bear flammable liquid labels. Trucks and tank cars must have flammable liquid placards.

4.2.1 These products are ordinarily transported in steel drums, tank cars, tank trucks, barges and ships.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁴ Available from American Petroleum Institute (API), 1220 L. St., NW, Washington, DC 20005-4070, <http://www.api.org>.

⁵ Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, <http://www.ecfr.gov>.