



Designation: D8174 – 18

Standard Test Method for Finite Flash Point Determination of Liquid Wastes by Small-Scale Closed Cup Tester¹

This standard is issued under the fixed designation D8174; 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.

INTRODUCTION

Flash point values are a function of the apparatus design, the condition of the apparatus used, and the operational procedure carried out. Flash point can, therefore, only be defined in terms of a standard test method, and no general valid correlation can be guaranteed between results obtained by different test methods or with different test apparatus.

This test method, and Test Method [D8175](#), are used to determine the flash point of liquid wastes.

This procedure is primarily derived from Method B of Test Methods [D3828](#) (EN ISO 3679 and IP 523) and is informally known in federal and other regulations as the Setaflash method.

1. Scope

1.1 This test method covers the procedure for a flash point test, within the range of -20 to 70 °C, of liquid wastes using a small-scale closed cup tester.

NOTE 1—Some apparatus are not designed for subambient temperature tests, so the testing range would be between 20 °C and 70 °C.

NOTE 2—This test method is not applicable for liquid waste that forms a surface film (see Test Method [D8175](#) for Finite Flash Point Determination of Wastes by Pensky-Martens Closed Cup Tester).

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

1.3 This standard measures the ignitability properties of liquid wastes (which may be any discarded material), which may include secondary materials, off-specification products, and materials containing free liquids recovered during emergency response actions. Results from this test method may be used as part of a fire risk assessment of the material, but it is the responsibility of the user to perform any additional characterization needed for determination of storage, transport, treatment, or disposal per current regulations.

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.*

Warning statements appear throughout. See applicable Safety Data Sheets (SDS) for information about certified reference materials (CRMs) or secondary working standards (SWSs) that may be used in this test method. SDS may also be useful if some components of the waste sample are known.

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

[D3828](#) Test Methods for Flash Point by Small Scale Closed Cup Tester

[D6299](#) Practice for Applying Statistical Quality Assurance and Control Charting Techniques to Evaluate Analytical Measurement System Performance

[D7236](#) Test Method for Flash Point by Small Scale Closed Cup Tester (Ramp Method)

[D8175](#) Test Method For Finite Flash Point Determination of Liquid Wastes by Pensky-Martens Closed Cup Tester

[E502](#) Test Method for Selection and Use of ASTM Standards for the Determination of Flash Point of Chemicals by Closed Cup Methods

[E1137/E1137M](#) Specification for Industrial Platinum Resistance Thermometers

¹ This test method is under the jurisdiction of ASTM Committee [D34](#) on Waste Management and is the direct responsibility of Subcommittee [D34.01](#) on Monitoring and Characterization.

Current edition approved March 15, 2018. Published March 2018. Originally approved in 2018. DOI: 10.1520/D8174-18.

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.