



Standard Practice for Sampling Single or Multilayered Liquids, With or Without Solids, in Drums or Similar Containers¹

This standard is issued under the fixed designation D5743; 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 typical equipment and methods for collecting samples of single or multilayered liquids, with or without solids, in drums or similar containers. These methods are adapted specifically for sampling drums having a volume of 110 gal (416 L) or less. These methods are applicable to hazardous material, product, or waste. Specific sample collection and handling requirements should be described in the site-specific work plan.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered 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 and health practices and determine the applicability of regulatory limitations prior to use.* Specific precautionary statements are given in 7.2.7.1 and Notes 1 and 2.

2. Referenced Documents

2.1 ASTM Standards:²

- D4687 Guide for General Planning of Waste Sampling
- D5088 Practice for Decontamination of Field Equipment Used at Waste Sites
- D5283 Practice for Generation of Environmental Data Related to Waste Management Activities: Quality Assurance and Quality Control Planning and Implementation
- D5495 Practice for Sampling With a Composite Liquid Waste Sampler (COLIWASA)

¹ This practice is under the jurisdiction of ASTM Committee D34 on Waste Management and is the direct responsibility of Subcommittee D34.01.02 on Sampling Techniques.

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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.

2.2 Other Documents:

- Drum Handling Practices at Hazardous Waste Sites*, EPA/600/S2-86/013, PB 165362, October 1986³
- Accident Prevention Manual; Engineering and Technology 13th Edition*, 2009⁴
- Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities*, No. 85-115, October 1985⁵

3. Terminology

3.1 Definitions:

3.1.1 *bonding*—touching the sampling equipment to the drum to form an electrically conductive path to minimize potential electrical differences between the sampling equipment and drum, reducing the buildup of static electricity.

3.1.2 *bung*—usually a 2-in. (5.1-cm) or ¾-in. (1.3-cm) diameter threaded plug designed specifically to close a bung hole.

3.1.3 *bung hole*—an opening in a barrel or drum through which it can be filled, emptied, or vented.

3.1.4 *deheading*—removal of the lid of a closed-head drum; it is usually accomplished with a drum deheader.

3.1.5 *drum*—implicitly any drum, barrel, or non-bulk container of 5 to 110-gal (19 to 416-L) capacity.

3.1.6 *pail*—a small container, usually of 5-gal (19-L) capacity. Pails typically have bungs or spouts, or the entire lid can be removed.

3.1.7 *paperwork*—all required site documentation, which may include the manifests, waste profiles, material safety data sheets (MSDS), site forms, sample labels, seals, and chain of custody forms.

3.1.8 *sludge*—any mixture of solids that settles out of solution. Sludges contain liquids that are not apparent as free liquids.

³ Available (for free) at <http://www.epa.gov/nscep>.

⁴ Available from National Safety Council, 1121 Spring Lake Dr., Itasca, IL 60143 and at www.nsc.org.

⁵ Available from National Institute of Occupational Safety and Health (NIOSH) at 800-356-4674 (hardcopy) or <http://www.osha.gov/publications/complinks/OSHG-Hazwaste/4agency.html> (download)