



Designation: D 5679 – 95a

Standard Practice for Sampling Consolidated Solids in Drums or Similar Containers¹

This standard is issued under the fixed designation D 5679; 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 consolidated solids in drums or similar containers. These methods are adapted specifically for sampling drums having a volume of 110 U.S. 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 the standard. The values given in parentheses are for information only.

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.*

2. Referenced Documents

2.1 ASTM Standards:

C 702 Practice for Reducing Samples of Aggregate to Testing Size²

C 783 Practice for Core Sampling of Graphite Electrodes³

D 4547 Practice for Sampling Waste and Soils for Volatile Organics⁴

D 4687 Guide for General Planning of Waste Sampling⁴

D 4700 Guide for Soil Sampling from the Vadose Zone⁵

D 5088 Practice for the Decontamination of Field Equipment Used at Non-Radioactive Waste Sites⁵

D 5283 Practice for Generation of Environmental Data Related to Waste Management Activities: Quality Assurance and Quality Control Planning⁴

2.2 NSC Document:

Accident Prevention Manual for Industrial Operations, 1985⁶

¹ This practice is under the jurisdiction of ASTM Committee D-34 on Waste Management and is the direct responsibility of Subcommittee D34.01 on Sampling and Monitoring.

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² *Annual Book of ASTM Standards*, Vol 04.02.

³ *Annual Book of ASTM Standards*, Vol 15.01.

⁴ *Annual Book of ASTM Standards*, Vol 11.04.

⁵ *Annual Book of ASTM Standards*, Vol 04.08.

⁶ Available from National Safety Council, P.O. Box 558, Itasca, IL 60143-0558.

2.3 Government Documents:⁷

Drum Handling Practices at Hazardous Waste Sites, EPA/600/2-86/013, January 1986

Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, National Institute for Occupational Safety and Health (NIOSH), Occupational Safety and Health Administration (OSHA), U.S. Coast Guard (USCG), and U.S. Environmental Protection Agency (EPA), October 1985

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 the 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 *consolidated*—the characteristic of being cemented or compacted, or both, and not separated easily into smaller particles.

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

3.1.6 *drum*—implies any drum, barrel, or non-bulk container of 5 to 110 U.S. gal (19 to 416 L) capacity.

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

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

3.1.9 *work plan*—a plan, specific to a particular site, for conducting activities specified in the plan.

4. Summary of Practice

4.1 The drum and its contents are inspected, and appropriate sampling equipment is selected. A clean device is then used to

⁷ Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.