



Designation: D 5680 – 95a

Standard Practice for Sampling Unconsolidated Solids in Drums or Similar Containers¹

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1. Scope

1.1 This practice covers typical equipment and methods for collecting samples of unconsolidated 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

D 4547 Practice for Sampling Waste and Soils for Volatile Organics³

D 4687 Guide for General Planning of Waste Sampling³

D 4700 Guide for Soil Sampling from the Vadose Zone⁴

D 5088 Practice for the Decontamination of Field Equipment Used at Non-Radioactive Waste Sites⁴

D 5283 Practice for Generation of Environmental Data Related to Waste Management Activities: Quality Assurance and Quality Control Planning³

D 5451 Practice for Sampling with a Trier Sampler³

E 300 Practice for Sampling Industrial Chemicals⁵

D 5633 Practice for Sampling With a Scoop³

2.2 NSC Document:

Accident Prevention Manual for Industrial Operations, 1992⁶

2.3 Government Documents:⁷

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

Soil Sampling and Analysis for Volatile Compounds, EPA/540/4-91/001, February 1991

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

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

3.1.6 *pail*—a small container, usually with a capacity of 5 U.S. gal. 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, custody seals, and chain of custody forms.

3.1.8 *unconsolidated*—for solid material, the characteristic of being uncemented or uncompacted, or both, and separated easily into smaller particles.

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

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 11.04.

⁴ *Annual Book of ASTM Standards*, Vol 04.08.

⁵ *Annual Book of ASTM Standards*, Vol 15.05.

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

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