



Standard Guide for Packaging and Shipping Environmental Samples for Laboratory Analysis¹

This standard is issued under the fixed designation D6911; 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 standard provides guidance on the selection of procedures for proper packaging and shipment of environmental samples to the laboratory for analysis to ensure compliance with appropriate regulatory programs and protection of sample integrity during shipment.

1.2 This standard does not address transport of hazardous wastes for disposal purposes.

1.3 This standard does not address the selection of parameter-specific sample bottles or containers.

1.4 This guide offers an organized collection of information or a series of options and does not recommend a specific course of action. This guide cannot replace education or experience and should be used in conjunction with professional judgment. Not all aspects of this guide may be applicable in all circumstances. This guide is not intended to represent or replace the standard of care by which the adequacy of a given professional service must be judged, nor should this guide be applied without consideration of the many unique aspects of a project. The word “standard” in the title of this guide means only that the guide has been approved through the ASTM consensus process.

1.5 *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 requirements prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

D653 Terminology Relating to Soil, Rock, and Contained Fluids

¹ This guide is under the jurisdiction of ASTM Committee **D18** on Soil and Rock and is the direct responsibility of Subcommittee **D18.21** on Groundwater and Vadose Zone Investigations.

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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.

D4220 Practices for Preserving and Transporting Soil Samples

D4840 Guide for Sample Chain-of-Custody Procedures

D5079 Practices for Preserving and Transporting Rock Core Samples

D5903 Guide for Planning and Preparing for a Groundwater Sampling Event

D6089 Guide for Documenting a Groundwater Sampling Event

D6517 Guide for Field Preservation of Groundwater Samples

2.2 Shipping Regulations:

International Air Transport Association (IATA) Dangerous Goods Regulations, 56th Edition, January 2015, or current edition

International Atomic Energy Agency (IAEA) Regulations for the Safe Transport of Radioactive Material, Section 10, Publication IAEA TS-R-1 (2005), or current edition

International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air, Document #9284-AN/905 (2013-2014 edition), or current edition

United States Government Printing Office, Title 40 Code of Federal Regulations Resource Conservation and Recovery Act (RCRA), Part 261

United States Government Printing Office, Title 49 Code of Federal Regulations Transportation (DOT), Parts 170-174

United States Postal Service, Hazardous, Restricted and Perishable Mail USPS Publication 52 (Updated May 15, 2014), or current edition

3. Terminology

3.1 For definitions of common terminology terms used within this guide, refer to Terminology **D653**.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *carrier*—a commercial company that is responsible for the actual shipment of environmental samples from the point of sample receipt from the shipper to the sample's final destination.

3.2.2 *dangerous goods*—those goods that meet the criteria of one or more of nine United Nations (UN) hazard classes

*A Summary of Changes section appears at the end of this standard