



Standard Practices for Preparation of Sample Containers and for Preservation of Organic Constituents¹

This standard is issued under the fixed designation D3694; 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 These practices cover the various means of (1) preparing sample containers used for collection of waters to be analyzed for organic constituents and (2) preservation of such samples from the time of sample collection until the time of analysis.

1.2 The sample preservation practice is dependent upon the specific analysis to be conducted. See Section 9 for preservation practices listed with the corresponding applicable general and specific constituent test method. The preservation method for waterborne oils is given in Practice D3325. Use of the information given herein will make it possible to choose the minimum number of sample preservation practices necessary to ensure the integrity of a sample designated for multiple analysis. For further considerations of sample preservation, see the *Manual on Water*.²

1.3 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

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 and health practices and determine the applicability of regulatory limitations prior to use.* For specific hazard statements, see 6.7, 6.24, and 8.1.3.

2. Referenced Documents

2.1 ASTM Standards:³

D1129 Terminology Relating to Water

D1193 Specification for Reagent Water

D1252 Test Methods for Chemical Oxygen Demand (Dichromate Oxygen Demand) of Water

D1783 Test Methods for Phenolic Compounds in Water

D2036 Test Methods for Cyanides in Water

D2330 Test Method for Methylene Blue Active Substances (Withdrawn 2011)⁴

D2579 Test Method for Total Organic Carbon in Water (Withdrawn 2002)⁴

D2580 Test Method for Phenols in Water by Gas-Liquid Chromatography

D2908 Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography

D3113 Test Methods for Sodium Salts of EDTA in Water (Withdrawn 2005)⁴

D3325 Practice for Preservation of Waterborne Oil Samples

D3371 Test Method for Nitriles in Aqueous Solution by Gas-Liquid Chromatography (Withdrawn 2002)⁴

D3534 Test Method for Polychlorinated Biphenyls (PCBs) in Water (Withdrawn 2003)⁴

D3590 Test Methods for Total Kjeldahl Nitrogen in Water

D3695 Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography

D3856 Guide for Management Systems in Laboratories Engaged in Analysis of Water

D3871 Test Method for Purgeable Organic Compounds in Water Using Headspace Sampling

D3921 Test Method for Oil and Grease and Petroleum Hydrocarbons in Water

D3973 Test Method for Low-Molecular Weight Halogenated Hydrocarbons in Water

D4129 Test Method for Total and Organic Carbon in Water by High Temperature Oxidation and by Coulometric Detection

D4165 Test Method for Cyanogen Chloride in Water

D4193 Test Method for Thiocyanate in Water

D4281 Test Method for Oil and Grease (Fluorocarbon Extractable Substances) by Gravimetric Determination

D4282 Test Method for Determination of Free Cyanide in Water and Wastewater by Microdiffusion

D4374 Test Methods for Cyanides in Water—Automated Methods for Total Cyanide, Weak Acid Dissociable Cyanide, and Thiocyanate

¹ These practices are under the jurisdiction of ASTM Committee D19 on Water and are the direct responsibilities of Subcommittee D19.06 on Methods for Analysis for Organic Substances in Water.

Current edition approved May 1, 2011. Published June 2011. Originally approved in 1978. Last previous edition approved in 2004 as D3694 – 96 (2004). DOI: 10.1520/D3694-96R11.

² *Manual on Water*, ASTM STP 442, ASTM, 1969.

³ 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.

⁴ The last approved version of this historical standard is referenced on www.astm.org.