



Designation: E 394 – 9400

Standard Test Method for Iron in Trace Quantities Using the 1,10-Phenanthroline Method¹

This standard is issued under the fixed designation E 394; 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 test method covers the determination of iron in the range from 1 to 100 µg.

1.2 This test method is intended to be general for the final steps in the determination of iron and does not include procedures for sample preparation.

1.3 This test method is applicable to samples whose solutions have a pH less than 2. It is assumed that the pH is adjusted to within this range in the sample preparation.

1.4 Review the current material safety data sheets (MSDS) for detailed information concerning toxicity, first-aid procedures, handling, and safety precautions.

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 limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*

D 1193 Specification for Reagent Water²

¹ This test method is under the jurisdiction of ASTM Committee E-15 on Industrial and Specialty Chemicals and is the direct responsibility of Subcommittee E15.201 on Elements—General Standards.

Current edition approved June 15, 1994; April 10, 2000. Published August 1994; July 2000. Originally published as E 394 – 70. Last previous edition E 394 – 80 (1991). E 394 – 94.