



Designation: **E1119–09 (Reapproved 2015) E1119 – 09 (Reapproved 2015)^{ε1}**

Standard Specification for Industrial Grade Ethylene Glycol¹

This standard is issued under the fixed designation E1119; 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.

This standard has been approved for use by agencies of the U.S. Department of Defense.

ϵ^1 NOTE—Editorial change was made in Subsection 1.2 in May 2016.

1. Scope*

1.1 This specification covers industrial grade ethylene glycol.

1.2 Review the current ~~Materials~~ Safety Data Sheets (~~MSDS~~)(SDS) for detailed information concerning toxicity, first aid procedures, handling and safety precautions.

1.3 The following applies to all specified limits in this standard; for purposes of determining conformance with this standard, an observed value or a calculated value shall be rounded off “to the nearest unit” in the last right-hand digit used in expressing the specification limit, in accordance with the rounding-off method of Practice **E29**.

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

1.5 The following safety hazards caveat pertains only to the test methods portion, Section 5, of this specification: *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*:²

D482 Test Method for Ash from Petroleum Products

D1078 Test Method for Distillation Range of Volatile Organic Liquids

D1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)

D1722 Test Method for Water Miscibility of Water-Soluble Solvents

D4052 Test Method for Density, Relative Density, and API Gravity of Liquids by Digital Density Meter

E29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

E202 Test Methods for Analysis of Ethylene Glycols and Propylene Glycols

E300 Practice for Sampling Industrial Chemicals

E1064 Test Method for Water in Organic Liquids by Coulometric Karl Fischer Titration

E2409 Test Method for Glycol Impurities in Mono-, Di-, Tri- and Tetraethylene Glycol and in Mono- and Dipropylene Glycol (Gas Chromatographic Method)

E2679 Test Method for Acidity in Mono-, Di-, Tri- and Tetraethylene Glycol by Non-Aqueous Potentiometric Titration

E2680 Test Method for Appearance of Clear, Transparent Liquids (Visual Inspection Procedure)

3. Requirements

3.1 Industrial grade ethylene glycol shall conform to the specification chemical and physical requirements (see **Table 1**).

4. Sampling

4.1 Sample ethylene glycol in accordance with the appropriate sections of Practice **E300** for liquid samples.

¹ This specification is under the jurisdiction of ASTM Committee **E15** on Industrial and Specialty Chemicals and is the direct responsibility of Subcommittee **E15.02** on Product Standards.

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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.

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