Designation: D 4836 – 95 (Reapproved 1999)

Standard Specification for Dipropylene Glycol Monomethyl Ether[1]

This standard is issued under the fixed designation D 4836; 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 specification covers dipropylene glycol monomethyl ether (DPM).

NOTE 1—Dipropylene glycol monomethyl ether (DPM) is a mixture of isomers, the predominant isomer being 1-(2-methoxy-1-methylethoxy)-2-propanol.

1.2 For specific hazard information and guidance, consult the supplier's Material Safety Data Sheet for materials listed in this standard.

2. Referenced Documents

2.1 *ASTM Standards:*

D 268 Guide for Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint and Related Coatings and Materials[2]

D 891 Test Methods for Specific Gravity, Apparent, of Liquid Industrial Chemicals[3]

D 1078 Test Method for Distillation Range of Volatile Organic Liquids[2]

D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)[2]

D 1364 Test Method for Water in Volatile Solvents (Karl Fischer Reagent Titration Method)[2]

D 1613 Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products[2]

D 4052 Test Method for Density and Relative Density of Liquids by Digital Density Meter[4]

D 4773 Test Method for Purity of Propylene Glycol Monomethyl Ether, Dipropylene Glycol Monomethyl Ether, and Propylene Glycol Monomethyl Ether Acetate[2]

E 1 Specification for ASTM Thermometers[5]

E 300 Practice For Sampling Industrial Chemicals[3]

2.2 *U.S. Federal Specification:fnr*

PPP-C-2020 Chemicals, Liquid, Dry, and Paste: Packaging of[6]

3. Properties

3.1 Dipropylene glycol monomethyl ether (DPM) shall conform to the following requirements:

Assay, weight %, min	98.0
Initial boiling point, min	184
Dry point, max	195
Apparent specific gravity:	
20/20°C	0.953 to 0.956
25/25°C	0.949 to 0.952
Color, platinum-cobalt scale, max	15
Water, weight %, max	0.15
Acidity (free acid as acetic acid), weight %, max	0.01[A]

[A] Equivalent to 0.1 mg of potassium hydroxide (KOH) per 1 g of specimen.

4. Sampling

4.1 The material shall be sampled in accordance with Practice E 300.

5. Test Methods

5.1 The properties enumerated in this specification shall be determined in accordance with the following test methods:

5.1.1 *Assay*—Test Method D 4773.

5.1.2 *Distillation Range*—Test Method D 1078, using an ASTM Solvents Distillation Thermometer 104C, having a range from 173 to 227°C and conforming to the requirements of Specification E 1.

5.1.3 *Apparent Specific Gravity*—Determine the apparent specific gravity by any convenient method that is accurate to the third decimal place, the temperature of both specimen and water being 20°C or 25°C. See Guide D 268 or Test Methods D 891 or D 4052.

5.1.4 *Color*—Test Method D 1209.

5.1.5 *Water*—Test Method D 1364.

5.1.6 *Acidity*—Test Method D 1613.

6. Packaging and Package Marking

6.1 Package size shall be as agreed upon between the purchaser and the supplier.

6.2 Packaging shall conform to applicable carrier rules and regulations or when specified shall conform to Fed. Spec. PPP-C-2020.

[1] This specification is under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.35 on Solvents, Plasticizers, and Chemical Intermediates.

Current edition approved Feb. 15, 1995. Published April 1995. Originally published as D 4836 – 88. Last previous edition D 4836 – 90.

[2] *Annual Book of ASTM Standards*, Vol 06.04.

[3] *Annual Book of ASTM Standards*, Vol 15.05.

[4] *Annual Book of ASTM Standards*, Vol 05.02.

[5] *Annual Book of ASTM Standards*, Vol 14.03.

[6] Available from Standardization Documents, Order Desk, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094.

7. Keywords

7.1 dipropylene glycol monoethyl ether.