



Standard Specification for Technical Grade Methylene Chloride¹

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

1. Scope

1.1 This specification covers technical grade methylene chloride.

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

1.3 *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.*

NOTE 1—See Guide D3844, Practice D4276, and STP 403A² for additional important information on solvent handling and solvent properties.

2. Referenced Documents

2.1 *ASTM Standards:*³

D2108 Test Method for Color of Halogenated Organic Solvents and Their Admixtures (Platinum-Cobalt Scale)

D2109 Test Methods for Nonvolatile Matter in Halogenated Organic Solvents and Their Admixtures

D2111 Test Methods for Specific Gravity and Density of Halogenated Organic Solvents and Their Admixtures

D2989 Test Method for Acidity-Alkalinity of Halogenated Organic Solvents and Their Admixtures

¹ This specification is under the jurisdiction of ASTM Committee D26 on Halogenated Organic Solvents and Fire Extinguishing Agents and is the direct responsibility of Subcommittee D26.03 on Cold Cleaning.

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² *Cold Cleaning with Halogenated Solvents, ASTM STP 403 A*, ASTM, 1981.

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.

D3401 Test Methods for Water in Halogenated Organic Solvents and Their Admixtures

D3741 Test Methods for Appearance of Admixtures Containing Halogenated Organic Solvents

D3844 Guide for Labeling Chlorinated Hydrocarbon Solvent Containers (Withdrawn 2013)⁴

D4276 Practice for Confined Area Entry

D4755 Test Method for Free Halogens in Halogenated Organic Solvents and Their Admixtures

E300 Practice for Sampling Industrial Chemicals

2.2 *Federal Documents:*⁵

29 CFR, Section 1910.1200 Department of Labor, OSHA Regulations on Hazard Communication

49 CFR, Sections 100 to 199 Department of Transportation Hazardous Materials Regulations

3. Chemical Properties

3.1 Technical grade methylene chloride shall conform to the requirements prescribed in Table 1.

4. Sampling

4.1 Conduct sampling by any of the appropriate procedures for simple liquids as specified in Practice E300.

5. Packaging and Package Marking

5.1 Package and label industrial or commercial quantities in accordance with DOT regulations in 49 CFR 100 to 199, in accordance with state and local regulations, and with OSHA regulations found in 29 CFR 1910.1200.

6. Keywords

6.1 dichloromethane; methylene chloride

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

⁵ *Code of Federal Regulations*, available from U.S. Government Publishing Office, 732 N. Capitol St., NW, Washington, DC 20401-0001, <http://www.gpo.gov>.

TABLE 1 Requirements for Technical Grade Methylene Chloride

Property	Specification	Method
Appearance	clear and free from suspended matter	D3741
Color, Pt-Co units, max	20	D2108
Specific gravity, 25°/25°C	1.318 to 1.323	D2111
Distillating range (760 mm Hg)		
initial boiling point, °C, min	39.0	
dry point, °C, max	41.0	
Nonvolatile residue, weight %, max	0.002	D2109
Acidity (as HCl), weight %, max	0.0005	D2989
Water, weight %, max	0.0100	D3401
Free halogens	none detected	D4755

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