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AMERICAN SOCIETY FOR TESTING AND MATERIALS
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Standard Specification for Trichloroethylene, Technical and Vapor-Degreasing Grade[1]

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

1. Scope

1.1 This specification covers technical and vapor degreasing grade trichloroethylene.

NOTE 1—Practices D 3844 and D 4276, and MNL2[2] provide additional important information on vapor degreasing and solvent properties.

2. Referenced Documents

2.1 *ASTM Standards:*

D 1078 Test Method for Distillation Range of Volatile Organic Liquids[3]

D 2108 Test Method for Color of Halogenated Organic Sol vents and Their Admixtures (Platinum-Cobalt Scale)[4]

D 2109 Test Methods for Nonvolatile Matter in Halogenated Organic Solvents and Their Admixtures[4]

D 2111 Test Methods for Specific Gravity of Halogenated Organic Solvents and Their Admixtures[4]

D 2942 Test Method for Total Acid Acceptance of Halogenated Organic Solvents (Nonreflux Methods)[4]

D 2988 Test Method for Water-Soluble Halide Ion in Halogenated Organic Solvents and Their Admixtures[4]

D 2989 Test Method for Acidity-Alkalinity of Halogenated Organic Solvents and Their Admixtures[4]

D 3401 Test Methods for Water in Halogenated Organic Solvents and Their Admixtures[4]

D 3741 Test Method for Appearance of Admixtures Containing Halogenated Organic Solvents[4]

D 3844 Practice for Labeling Halogenated Hydrocarbon Solvent Containers[4]

D 4276 Practice for Confined Area Entry[4]

TABLE 1 Physical Properties

Property	Specification	Test Method
Specific gravity, 25/25°C	1.450 to 1.460	D 2111
Distillation range (760 mm Hg)		D 1078
Initial boiling point,° C, min	85.0	
Dry point, °C, max	90.0	
Acidity (as HCl), weight, %, max	0.0005	D 2989
Alkalinity (as NaOH), weight, %, max	0.010	D 2989
Water, weight, %, max	0.010	D 3401
Appearance	clear and free from suspended matter	D 3741
Color, Pt-Co, max	20	D 2108
Halide (as Cl^-), weight, %, max	0.0005	D 2988
Nonvolatile residue, weight, %, max	0.0050	D 2109
Acid acceptance (as NaOH), weight, %, min	0.160	D 2942

2.2 *Other Document:*

49 CFR 100 to 199 Department of Transportation Hazardous Materials Regulations[5]

3. Properties

3.1 Technical and vapor degreasing grade trichloroethylene shall conform to the requirements prescribed in Table 1.

4. Packaging

4.1 Industrial or commercial quantities shall be packaged and labeled in accordance with DOT regulations as found in 49 CFR 100 to 199 and state and local regulations.

5. Keywords

5.1 trichloroethylene; vapor degreasing solvent

[1] This specification is under the jurisdiction of ASTM Committee D-26 on Halogenated Organic Solvents and Fire Extinguishing Agents and is the direct responsibility of Subcommittee D26.02 on Vapor Degreasing.

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[2] *Manual on Vapor Degreasing, MNL2, third edition, ASTM.*

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

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

[5] The Code of Federal Regulations may be obtained from the Superintendent of Documents, US Government Printing Office, Washington, DC 20402.