



Designation: D4080 – 15 (Reapproved 2020)

Standard Specification for Trichloroethylene, Technical and Vapor-Degreasing Grade¹

This standard is issued under the fixed designation D4080; 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.

1. Scope

1.1 This specification covers technical and vapor degreasing grade trichloroethylene.

NOTE 1—Guide [D3844](#), Practice [D4276](#), and MNL2² provide additional important information on vapor degreasing and solvent properties.

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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

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](#)

[D2942](#) Test Method for Total Acid Acceptance of Halogenated Organic Solvents (Nonreflux Methods)

[D2988](#) Test Methods for Water-Soluble Halide Ion in Halogenated Organic Solvents and Their Admixtures

[D2989](#) Test Method for Acidity-Alkalinity of Halogenated Organic Solvents and Their Admixtures

[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

[D6806](#) Practice for Analysis of Halogenated Organic Solvents and Their Admixtures by Gas Chromatography

2.2 *Code of Federal Regulations:*⁵

[49 CFR 100 to 199](#) Department of Transportation Hazardous Materials Regulations

[29 CFR 1910.1200](#) Department of Labor, OSHA Regulations on Hazard Communications

3. Properties

3.1 Technical and vapor degreasing grade trichloroethylene shall conform to the requirements prescribed in [Table 1](#).

4. Packaging

4.1 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 in accordance with OSHA regulations found in 29 CFR 1910.1200.

5. Keywords

5.1 trichloroethylene; vapor degreasing solvent

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 [D26.02](#) on Vapor Degreasing.

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² *Manual on Vapor Degreasing. MNL2, Third Edition, ASTM International.*

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.

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

⁵ Available from U.S. Government Publishing Office, 732 N. Capitol St., NW, Washington, DC 20401, <http://www.gpo.gov>.

TABLE 1 Properties

Property	Specification	Test Method
Specific gravity, 25/25 °C	1.450 to 1.460	D2111
Acidity (as HCl), weight, %, max	0.0005	D2989
Alkalinity (as NaOH), weight, %, max	0.010	D2989
Water, weight, %, max	0.010	D3401
Appearance	clear and free from suspended matter	D3741
Color, Pt-Co, max	20	D2108
Halide (as Cl ⁻), weight, %, max	0.0005	D2988
Nonvolatile residue, weight, %, max	0.0050	D2109
Acid acceptance (as NaOH), weight, %, min	0.160	D2942
Total impurities, weight, %, max	0.20	D6806

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