



Designation: **D4081 – 00 (Reapproved 2011) D4081 – 16**

Standard Specification for Drycleaning-Grade Perchloroethylene¹

This standard is issued under the fixed designation D4081; 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 drycleaning-grade perchloroethylene suitable for use in the drycleaning industry.
- 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—[Practice Guide D3844](#) provides additional important information on proper labeling.

2. Referenced Documents

2.1 *ASTM Standards:*²

~~D1078 Test Method for Distillation Range of Volatile Organic Liquids~~

~~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)~~

~~D3316 Test Method for Stability of Perchloroethylene with Copper~~

~~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~~D3844 Guide for Labeling Chlorinated Hydrocarbon Solvent Containers (Withdrawn 2013)~~³

~~D4494~~[D6806 Test Method for Detecting Residual Odor of Drycleaning-Grade Perchloroethylene](#)[Practice for Analysis of Halogenated Organic Solvents and Their Admixtures by Gas Chromatography](#)

2.2 *Code of Federal Regulations:*⁴

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

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

3. Properties

- 3.1 Drycleaning-grade perchloroethylene shall conform to the requirements prescribed in [Table 1](#).
- 3.2 Maximum acid acceptance specification of 0.03 weight % as NaOH distinguishes drycleaning-grade perchloroethylene from vapor-degreasing-grade perchloroethylene which is formulated specifically for that application.

4. Packaging and Package Marking

- 4.1 Package and label industrial or commercial quantities in accordance with DOT regulations 49 CFR 100 to 199, and in accordance with state and local regulations, and with OSHA regulations found in 29 CFR 1910.1200.
 - 4.1.1 The proper shipping name for perchloroethylene is UN 1897, tetrachloroethylene.

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 D26.06 on Drycleaning.

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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.

³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ The *Code of Federal Regulations* is available from U.S. Government Printing Office Superintendent of Documents, Publishing Office, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, <http://www.access.gpo.gov>, 20401-0001, <http://www.gpo.gov>.