



Designation: D4081 – 16

# Standard Specification for Drycleaning-Grade Perchloroethylene<sup>1</sup>

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 reappraisal. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reappraisal.

## 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—Guide D3844 provides additional important information on proper labeling.

## 2. Referenced Documents

2.1 *ASTM Standards*:<sup>2</sup>

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)

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

D3741 Test Methods for Appearance of Admixtures Containing Halogenated Organic Solvents

<sup>1</sup> 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.

Current edition approved July 1, 2016. Published July 2016. Originally approved in 1982. Last previous edition approved in 2011 as D4081–00(2011). DOI: 10.1520/D4081-16.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

D3844 Guide for Labeling Chlorinated Hydrocarbon Solvent Containers (Withdrawn 2013)<sup>3</sup>

D6806 Practice for Analysis of Halogenated Organic Solvents and Their Admixtures by Gas Chromatography

2.2 *Code of Federal Regulations*:<sup>4</sup>

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.

## 5. Keywords

5.1 perchloroethylene; tetrachloroethylene drycleaning solvent

<sup>3</sup> The last approved version of this historical standard is referenced on [www.astm.org](http://www.astm.org).

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