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Standard Specification for Reclaimed Trichloroethylene¹

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1. Scope

1.1 This specification covers the grades of trichloroethylene² typically needed in various industries for noncritical applications such as in metal cleaning formulations. It may be used as a reference document by purchasers or persons establishing in-house trichloroethylene recovery programs.

1.2 *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

[D1064 Test Methods for Iron in Rosin Tall Oil Fatty Acids and Other Related Products](#) (Withdrawn 2002)⁴

[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 \(Nonreflux Methods\)](#)

[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 D26.02 on Vapor Degreasing.

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² Trichloroethylene: CAS No. 79-01-6.

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.

[D3401 Test Methods for Water in Halogenated Organic Solvents and Their Admixtures](#)

[D3741 Test Methods for Appearance of Admixtures Containing Halogenated Organic Solvents](#)

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

2.2 *Code of Federal Regulations:*⁵

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

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

3. Classification

3.1 *Type I*—Generally recognized for use in precision applications.

3.2 *Type II*—Use for less-demanding precision applications.

3.3 *Type III*—May not be suitable for all applications.

4. Properties

4.1 Type I reclaimed trichloroethylene shall meet the requirements of [Table 1](#).

4.2 Type II reclaimed trichloroethylene shall meet the requirements of [Table 1](#).

4.3 Type III reclaimed trichloroethylene shall meet the requirements of [Table 1](#).

5. Packaging

5.1 Industrial or commercial quantities shall be packaged and labeled in accordance with DOT regulations as found in 49 CFR Parts 100 to 199, in accordance with state and local regulations, and in accordance with OSHA regulations found in 29 CFR 1919.1200.

6. Keywords

6.1 halogenated solvent; reclaimed; TCE; tri; trichloroethylene—Types I, II, and III

⁵ Available from U.S. Government Publishing Office (GPO), 732 N. Capitol St., NW, Washington, DC 20401-0001, <http://www.gpo.gov>.

TABLE 1 Properties

Property	Specification			Test Method
	Type I	Type II	Type III	
Specific gravity, 25/25	1.45 to 1.46	1.44 to 1.47	1.43 to 1.48	D2111
Nonvolatile residue, ppm, max	50	50	50	D2109
Water, ppm, max	100	100	150	D3401 or D1064
Assay, wt %	99.5	99.0	97.0	D6806
1,1,1 trichloroethane content, wt %, max	0.02	0.05	0.5	D6806
Color, Pt-Co, max	20	20	35	D2108
Appearance	clear and free from suspended matter	clear and free from suspended matter	clear and free from suspended matter	D3741
Acid acceptance, as NaOH, wt %, min	0.16	0.16	0.20	D2942
Acidity, as HCl, ppm, max	1.0	1.0	1.0	D2989

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