



Standard Specification for Spirits of Turpentine¹

This standard is issued under the fixed designation D 13; 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 Department of Defense.

1. Scope

1.1 This specification covers the following kinds of spirits of turpentine as defined by the Code of Federal Regulations and Terminology D 804: gum spirits of turpentine, steam-distilled wood turpentine, sulfate wood turpentine, and destructively-distilled wood turpentine.

1.2 The purchaser should specify the kind of spirits of turpentine desired.

1.3 This specification is no longer widely used as it only specifies physical characteristics and not chemical composition. This specification was developed when the chief use for turpentine was as a solvent. Currently, especially in the United States, only a very limited quantity of turpentine is used as a solvent. Its main end use is as a raw material for the preparation of polyterpene type resins and synthetic organic chemicals. In spite of its limited application as a solvent, and hence the limited use of this specification, it is considered to be important to retain this specification. When information is required on chemical composition, gas chromatography is the recommended procedure (see Test Methods D 6387).

2. Referenced Documents

2.1 ASTM Standards:

D 233 Test Methods of Sampling and Testing Turpentine²

D 804 Terminology Relating to Naval Stores, Including Tall Oil, and Related Products²

D 6387 Test Methods for Composition of Turpentine and

Related Terpene Products by Capillary Gas Chromatography²

2.2 Other Document:

Code of Federal Regulations, Title 7, Part 160, "Regulations and Standards for Naval Stores," 1999³

3. Properties

3.1 Spirits of turpentine shall be pure and shall conform to the requirements prescribed in Table 1.

4. Appearance

4.1 Spirits of turpentine shall be clear and free from suspended matter and water.

5. Color

5.1 The color shall be "standard" or better.

6. Odor

6.1 The odor shall be characteristic of the kind of spirits of turpentine specified. If desired, deliveries shall conform to the odor of the sample agreed upon between the purchaser and the seller.

7. Test Methods

7.1 The material shall be sampled and the properties enumerated in this specification determined in accordance with the Test Methods D 233.

8. Keywords

8.1 turpentine

¹ This specification is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.34 on Naval Stores.

Current edition approved May 10, 2002. Published July 2002. Originally published as D 13 – 14 T. Last previous edition D 13 – 97.

² *Annual Book of ASTM Standards*, Vol 06.03.

³ Available from U.S. Government Printing Office, Superintendent of Documents, 732 North Capital St., NW, Mail Stop: SDE, Washington, DC 20401.

TABLE 1 Physical Requirements

| | Gum Spirits of Turpentine | | Wood Turpentine | | | | | |
|---|---------------------------|-------|-----------------|-------|---------|-------|-------------------------|-------|
| | max | min | Steam Distilled | | Sulfate | | Destructively Distilled | |
| | | | max | min | max | min | max | min |
| Specific gravity, 15.6/15.6°C | 0.875 | 0.860 | 0.875 | 0.860 | 0.875 | 0.860 | 0.865 | 0.850 |
| Refractive index at 20°C, D line | 1.478 | 1.465 | 1.478 | 1.465 | 1.478 | 1.465 | 1.483 | 1.463 |
| Initial boiling point at 760-mm Hg pressure, °C | 160 | 150 | 160 | 150 | 160 | 150 | 157 | 150 |
| Distilling below 170°C at 760-mm Hg pressure, % | ... | 90 | ... | 90 | ... | 90 | ... | 60 |
| Distilling below 180°C at 760-mm Hg pressure, % | ... | ... | ... | ... | ... | ... | ... | 90 |

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