



## Standard Test Methods for Sampling and Testing Dipentene<sup>1</sup>

This standard is issued under the fixed designation D 801; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 These test methods cover procedures for sampling and testing dipentene and related terpene solvents, consisting chiefly of monocyclic terpene hydrocarbons distilling above the range for turpentine.

1.2 The procedures given in these test methods appear in the following order:

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Refractive Index	10
Composition	11
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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.*

### 2. Referenced Documents

#### 2.1 ASTM Standards:

- D 268 Guide for Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint and Related Coatings and Materials<sup>2</sup>
- D 803 Standard Test Methods for Testing Tall Oil<sup>3</sup>
- D 890 Test Method for Water in Liquid Naval Stores<sup>3</sup>
- D 3009 Standard Test Method for Composition of Turpentine by Gas Chromatography<sup>3</sup>
- E 300 Practice for Sampling Industrial Chemicals<sup>4</sup>

### 3. Significance and Use

3.1 The testing procedures described in these test methods have been in use for many years and emphasize the physical properties rather than the chemical composition of dipentene.

<sup>1</sup> These test methods are under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings, Materials, and Applications and are the direct responsibility of Subcommittee D01.34 on Naval Stores.

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 06.04.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 06.03.

<sup>4</sup> *Annual Book of ASTM Standards*, Vol 15.05.

These procedures were sufficient when dipentene was used primarily as a solvent. Currently, however, dipentene finds application as a chemical raw material and a knowledge of its chemical composition is therefore important. Gas chromatography is the accepted method for determining the chemical composition of dipentene. An ASTM test method using an existing ASTM test method using packed column gas chromatography can be used for the major compounds in dipentene. A capillary GC procedure is currently being written which is suitable for both the major and minor components.

### 4. Sampling

4.1 Sample the material in accordance with the procedure described in Guide D 268 and Practice E 300. If a sample from close to the bottom of a tank shows a decided difference in color or appearance from samples taken at other depths, take an extra bottom sample and examine it separately from the composite sample. In such case the composite sample shall not include any portion of such bottom sample.

### 5. Detection and Removal of Separated Water

5.1 Draw a portion of the dipentene by means of a glass or metal container with a removable stopper or top,<sup>5</sup> or with a thief, from the lowest part of the container, or by opening the bottom valve of the level tank car. If water is found to be present, draw it all out, record the quantity, and deduct it from the total volume of liquid delivered.

### 6. Appearance

6.1 Examine a portion of the sample after agitation to determine its clarity and freedom from foreign matter and separated water.

### 7. Color

7.1 Compare the color of the sample in any suitable or designated apparatus with the accepted or specified color standard.

### 8. Odor

8.1 Compare the odor of the sample with an agreed upon water-free reference sample kept in the dark in a completely filled well-stoppered bottle. In the absence of such a reference

<sup>5</sup> Detailed description of equipment suitable for such sampling is given in Practice E 300.