

ICS 75.080
CCS E 30



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 11134-1989

Replacing GB/T 11134-1989

**Determination of kauri-butanol value of hydrocarbon solvents
(English Translation)**

Issued on: October 5, 2025

Implemented on: May 1, 2026

Issued by: State Administration for Market Regulation

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document supersedes GB/T 11134-1989 "Determination of Butanol Value of Pinecone Resin as a Hydrocarbon Solvent" and is consistent with GB/T 11134-1989.

Compared to previous versions, aside from structural adjustments and editorial changes, the main technical changes are as follows.

- a) The scope of application has been changed (see Chapter 1, Chapter 1 of the 1989 edition);
- b) A definition for "Shellspine resin butanol value" has been added (see Chapter 3);
- c) The description of the method summary has been revised (see Chapter 4, Chapter 3 of the 1989 edition);
- d) Technical requirements for balances, electromagnetic stirrers, Buchner funnels, and thermometers have been added (see 5.2, 5.3, 5.4, and 5.10);
- e) The technical requirements for turbidity observation cards have been changed (see 5.12, 5.6 of the 1989 edition);
- f) Added pine resin-n-butanol solution and n-heptane-toluene mixed solution (see Chapter 6);
- g) The chapter on "Preparation" has been deleted (see Chapter 7 in the 1989 edition);
- h) A new chapter on "Sampling" has been added (see Chapter 7);
- i) The test temperature was changed from "25°C±1°C" to "25°C±5°C" (see Chapter 8, Chapter 8 of the 1989 edition);

j) The volume correction formula for the solvent in the burette has been removed (see 9.2 in the 1989 edition);

k) The terminology for precision has been revised (see Chapter 10, Chapter 10 of the 1989 edition);

l) Added report content such as sample name and number (see Chapter 11).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Petroleum Products and Lubricants (SAC/TC280).

1 Scope

This document specifies a method for determining the relative solubility of hydrocarbon solvents used in paints, varnishes and related products.

This document applies to the determination of the butanol value of pine resin in hydrocarbon solvents with an initial boiling point greater than 40°C and a dry point less than 300°C. Its determination range...

The range is 30 to 90; this document also applies to samples with butanol values outside this range, but the precision is not determined.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 4756 Manual Sampling Method for Petroleum Liquids GB/T 6680 General Rules for Sampling of Liquid Chemical Products GB/T 8170 Rules for rounding off numerical values and the representation and determination of limiting values GB/T 24988 Copy paper

3 Terms and Definitions

The following terms and definitions apply to this document.

Kauri-butanol value (Kauri-butanol value) at 25°C, a hydrocarbon solvent was added to 20g of pine resin-n-butanol solution, and the amount of hydrocarbon solvent consumed when the specified turbidity was achieved was recorded.

The number of milliliters is a value calculated using a formula.

Note: The pine resin-n-butanol solution was standardized using a toluene and n-heptane-toluene mixture (75% n-heptane and 25% toluene by volume) as a reference.

The value of toluene is set at 105, and the value of the n-heptane-toluene mixed solution is set at 40.

4 Method Overview

At 25°C, a mixed solution of toluene (with a concentration of 105) and 75% n-heptane (with a concentration of 40) and 25% toluene was used to treat 20g of seashells.

The pine resin-n-butanol solution was standardized, and the concentration of the pine resin-n-butanol solution was adjusted to a suitable level. Under the same conditions, the sample was titrated.

For a pine resin-n-butanol solution, record the number of milliliters of sample required to produce the specified turbidity. Calculate the pine resin butanol content of the sample using a formula.

Alcohol value.

5 Instruments and Materials

5.1

Water bath. capable of maintaining a constant temperature of 25°C±5°C. Other environments capable of maintaining a constant temperature of 25°C±5°C may also be used.