

ICS 65.050
CCS B 72

LY

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

LY/T 3157-2023

Test methods of oleoresin

松脂试验方法

(English Translation)

Issued on: June 19, 2023

Implemented on: November 1, 2023

Issued by: State Forestry and Grassland Administration

Table of Contents

Preface
1 Scope
2 Normative references
3 Terms and Definitions
4 Reagents and Materials
5 Instruments and Equipment
6 Sample
7 Experimental steps and results
8 Test Report
Appendix A (Informative) Correction coefficients of various factors affecting relative density of lipid liquid Table
Appendix B (Normative) Conversion relationship between rosin liquid volume and rosin content Figure
Appendix C (Informative) Masson pine resin gas chromatogram and data
Appendix D (Informative) Gas Chromatogram and Data of Longleaf Pine Resin
Appendix E (Informative) Gas Chromatography and Data of Pinus rosin from Simao
Appendix F (Informative) Yunnan pine resin gas chromatogram and data
Appendix G (Informative) Gas Chromatogram and Data of South Asian Pine Resin

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document integrates LY/T 1355-2010 "Rosin", LY/T 3157-2019 "Chemical composition of rosin", GB/T 18001-2015 "Longleaf Pine Resin", GB/T 33025-2016 "Evaluation Method for Adulterated Rosin", GB/T 33028-2016 "Industrial Salt Adulteration in Rosin" GB/T 33030-2016 "Identification Method for Starch Adulterants in Rosin".

This document replaces the following documents. LY/T 3157-2019, GB/T 33025-2016, GB/T 33028-2016, GB/T 33030-2016. Compared with the integrated documents, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

--- The calculation formula for the results of "Determination of turpentine content" has been changed (see 7.3.3, 4.1.3.3 of LY/T 1355-2010).

1 Scope

This document describes the appearance, moisture content, mechanical impurity content, turpentine content, rosin content, rosin chemical composition, etc.

The detection method and the identification method of rosin adulteration (sodium chloride, starch, sulfate, carbonate).

This document is applicable to the inspection and testing of rosin products.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 601 Preparation of standard titration solutions for chemical reagents GB/T 602 Preparation of standard solutions for determination of impurities in chemical reagents GB/T 6682 Specifications and test methods for water used in analytical laboratories GB/T 12901 Gum turpentine

3 Terms and definitions

The following terms and definitions apply to this document.

Oleoresin

A colorless, transparent fluid substance secreted by pine trees, which appears as a white to grayish white or light yellow viscous liquid or a blocky semisolid in the air.

Substances that are added to rosin and are not natural rosin.

Note: During the storage of rosin, water needs to be added to cover the surface to reduce the volatilization of turpentine and the oxidation of rosin. This water needs to be removed before trading.

If a large amount of water is mixed into the rosin and remains in the rosin and cannot be removed normally (such as by adsorption using a water absorbent, etc.), this excess water is also considered as rosin.

Adulteration.

4 Reagents and Materials

Unless otherwise specified, the solutions used in this document are prepared in accordance with the provisions of GB/T 601 and GB/T 602, and all reagents used are

analytical grade.

The water used shall comply with the requirements of Grade III water in GB/T 6682.

4.1 Turpentine

It meets the requirements of GB/T 12901 gum turpentine for superior or first-class products.

4.2 80% glycerol-water solution Glycerol and distilled water were mixed in a volume ratio of 8.2.