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

GB/T 14454.15-2008

Replacing GB/T 14454.15-1993

**Oil of sassafras -- Determination of safrole and isosafrole
content -- Gas chromatographic method on packed columns**

黄樟油 黄樟素和异黄樟素含量的测定 填充柱气相色谱法

(English Translation)

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Table of Contents

Foreword
Introduction
1 Scope
2 Normative references
4 Reagents and products
4.1 Reference material
4.2 Internal Standard
4.3 Solvent
5 Instruments
5.1 Chromatograph, recorder and integrator
5.2 Column
5.3 Detector

Foreword

GB/T 14454 "spice general test method" consists of the following components.

- Part 1. perfume sample preparation;
- Part 2. spice aroma evaluation method;
- Part 4. Determination of the refractive index of spices;
- Part 5. Determination of optical rotation of spices;
- Part 6. assessment perfume evaporation residue content;
- Part 7. Determination of spices freezing point;
- Part 11. Determination of phenol content of spices;
- Part 12. Determination of trace chlorine spices;
- Part 13. Determination of carbonyl value and carbonyl compounds content;
- Part 14. Preparation of spices standard solution, the test solution and the indicator solution;
- Part 15. Determination of saffron saffron and saffron exclusive content packed column gas chromatography.

This is Part 15 GB/T 14454 of.

The partial modification of international standards ISO 7355. 1985 "sassafras and nutmeg oil safrole and cis, trans - different safrole content measured Given Packed Column Gas Chromatography. " This part of ISO 7355. 1985 as compared to the main technical differences are as follows.

--- Increasing the reference retention index;

--- Remove the ISO 7355. 1985 superposition method.

This part is GB/T 14454.15-1993 "sassafras safrole and safrole different Determination of Packed Column Gas Chromatography Amendment Act ". This section compared with the GB/T 14454.15-1993, mainly made editorial changes.

Appendix A of this section is an informative annex.

This part is proposed by the China National Light Industry Council.

This part of the National Fragrance Flavor and Cosmetic Standardization Technical Committee.

This section is responsible for drafting the Shanghai Institute of spices.

Introduction

Since the description of gas chromatography is very lengthy, so that the following approach is useful. On the one hand the development of common methods, pointed out that Detailed information about the common parameters, equipment, products, methods, formulas, and other aspects; the other hand, the determination to develop a more specific brief essential oil component Standard, given only for specific operating conditions.

This section references General Standard GB/T 11539 General Chapter "spice Packed Column Gas Chromatography common law".

Determination of sassafras safrole and safrole exclusive content Packed Column Gas Chromatography

1 Scope

This section GB/T 14454 specifies the determination of the oil content of sassafras safrole and iso-safrole by packed column gas chromatography.

This section applies to the determination of safrole and safrole different content in sassafras oil.

2 Normative references

The following documents contain provisions which, through reference GB/T 14454 in this section constitute provisions of this section. For dated reference documents Member, all

subsequent amendments (not including errata content) or revisions do not apply to this section. However, under this part are encouraged to reach Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 11539 Spices Packed Column Gas Chromatography common method (GB/T 11539-2008, ISO 7359. 1985, IDT) GB/T 14454.1 perfume sample preparation (GB/T 14454.1-2008, ISO 356:1996, MOD) Principle 3 A small amount of sassafras oil under specified conditions, with a packed column gas chromatography analysis. Determination of safrole and safrole-exclusive content by the internal standard method.

4.1.1 Safrole

Freshly distilled, under the test conditions determined by gas chromatography purity of at least 95%, about 100mg/L ethanol standard solution.

4.1.2 Isosafrole (cis and trans isomer mixture)

Under the experimental conditions determined by gas chromatography purity of at least 95% (cis and trans isomers peaks), about 100mg/L ethanol standard solution, Refrigerated freshly prepared and protected from light.

4.2 Internal Standard

Freshly distilled ethyl decanoate, under the test conditions determined by gas chromatography purity of at least 95%, 100mg/L ethanol solution.

4.3 Solvent

Ethanol, under the test conditions without interference of impurities.

5.1 Chromatograph, recorder and integrator

See GB/T 11539.

5.2 Column

Length 3m ~ 4m, the inner diameter of 3mm ~ 4mm. Stationary Phase. Polyethylene glycol 20000.

5.3 Detector

Hydrogen flame ionization detector.