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

GB/T 32732-2026

Replacing GB/T 32732-2016

Vanilla - Test methods

香荚兰 试验方法

(English Translation)

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Table of Contents

- Foreword
- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4.1 Principle
- 4.2 Reagents, working solutions, and internal standard solutions

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 replaces GB/T 32732-2016 "Test Methods for Vanilla". Compared with GB/T 32732-2016, the main differences are structural adjustments and rewriting.

Aside from the logical changes, the main technical changes are as follows.

---The method for determining the moisture content of vanilla beans and vanilla powder has been removed (see section 4.1 of the 2016 edition);

---The concentration requirements for ethanol have been changed, and requirements for 4-hydroxybenzoic acid standard stock solution have been added (see 4.2.2, 4.2.2.1 in the 2016 version);

---The standardized documents referenced for "instrument" have been modified, and the instruments and equipment have been changed (see 4.3 and 5.3, 4.2.3.2 and 4.3.3.2 in the 2016 edition);

---The formula description has been changed, with peak area replacing peak height, and the notes in the formula have been deleted [see formulas (1) and (2), 2016 edition].

Equations (2) and (3)).

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 by the All China Federation of Supply and Marketing Cooperatives.

This document is under the jurisdiction of the National Spices and Flavours Standardization

Technical Committee (SAC/TC408).

1 Scope

- a) High-performance liquid chromatography (HPLC) determination of vanillin, vanillic acid, 4-hydroxybenzaldehyde, and 4-hydroxybenzoic acid;
- b) Ultraviolet spectroscopy method for determining vanillin.

This document applies to the quality assessment and trade of vanilla (vanilla beans, chopped vanilla, mixed vanilla and vanilla powder).

This document does not apply to vanilla extract.

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 12806 Laboratory glassware - Single-mark volumetric flasks (GB/T 12806-2011, ISO 1042:1998, NEQ) GB/T 22268 Vanilla vocabulary (GB/T 22268-2021, ISO 3493:2014, IDT)

3 Terms and Definitions

The terms and definitions defined in GB/T 22268 apply to this document.

4.High-performance liquid chromatography (HPLC) determination of vanillin, vanillic acid, 4-hydroxybenzaldehyde, and 4-hydroxybenzoic acid

4.1 Principle

After extraction, the sample is diluted (if necessary), separated by high performance liquid chromatography (HPLC), and determined by internal standard method and ultraviolet spectroscopy detector.

4.2.1 Reagents

Unless otherwise specified, all reagents must be of analytical grade. Use distilled water, deionized water, or water of equivalent purity.

The required reagents are as follows.

- a) Ethanol. 96% (volume fraction).

b) Methanol. chromatographic grade.

c) Dilute phosphoric acid. $c(\text{H}_3\text{PO}_4) = 0.01 \text{ mol/L}$.

d) Mobile phase (for reference). Mix 75 parts dilute phosphoric acid with 25 parts methanol, filter through a porous membrane, and degas.

e) Participant/Standard Samples (Purity $\geq 99\%$).

- Vanillin (4-hydroxy-3-methoxybenzaldehyde);
- Vanillic acid (4-hydroxy-3-methoxybenzoic acid);
- 4-Hydroxybenzaldehyde;