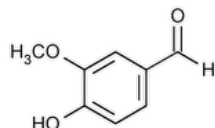


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Vanillin



$C_8H_8O_3$ 152.15
 Benzaldehyde, 4-hydroxy-3-methoxy-;
 Vanillin CAS RN®: 121-33-5.

DEFINITION

Vanillin contains NLT 97.0% and NMT 103.0% of vanillin ($C_8H_8O_3$), calculated on the dried basis.

IDENTIFICATION

Change to read:

- A. ▲ [SPECTROSCOPIC IDENTIFICATION TESTS \(197\)](#), [Infrared Spectroscopy: 197K](#) ▲ (CN 1-MAY-2020)

Change to read:

- B. ▲ [SPECTROSCOPIC IDENTIFICATION TESTS \(197\)](#), [Ultraviolet-Visible Spectroscopy: 197U](#) ▲ (CN 1-MAY-2020)

Sample solution: 8 µg/mL in methanol

Acceptance criteria: Meets the requirements

ASSAY

• PROCEDURE

Standard solution: 8 µg/mL of [USP Vanillin RS](#) in methanol

Sample solution: 8 µg/mL of Vanillin in methanol

Blank: Methanol

Instrumental conditions

(See [Ultraviolet-Visible Spectroscopy \(857\)](#).)

Mode: UV

Analytical wavelength: 308 nm

Cell: 1 cm

Analysis

Samples: *Standard solution, Sample solution, and Blank*

Calculate the percentage of vanillin ($C_8H_8O_3$) in the portion of Vanillin taken:

$$\text{Result} = (A_U/A_S) \times (C_S/C_U) \times 100$$

A_U = absorbance of the *Sample solution*

A_S = absorbance of the *Standard solution*

C_S = concentration of [USP Vanillin RS](#) in the *Standard solution* (µg/mL)

C_U = concentration of the *Sample solution* (µg/mL)

Acceptance criteria: 97.0%–103.0% on the dried basis

IMPURITIES

- [RESIDUE ON IGNITION \(281\)](#): NMT 0.05%

SPECIFIC TESTS

- [MELTING RANGE OR TEMPERATURE \(741\)](#): 81°–83°
- [LOSS ON DRYING \(731\)](#): Dry the sample over silica gel for 4 h: it loses NMT 1.0% of its weight.

ADDITIONAL REQUIREMENTS

- **PACKAGING AND STORAGE:** Preserve in tight, light-resistant containers.
- [USP REFERENCE STANDARDS \(11\)](#)
[USP Vanillin RS](#)

Auxiliary Information - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
VANILLIN	Documentary Standards Support	SE2020 Simple Excipients
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SE2020 Simple Excipients

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:
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