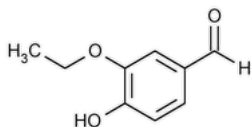


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## Ethyl Vanillin



$C_9H_{10}O_3$  166.17

Benzaldehyde, 3-ethoxy-4-hydroxy-;

3-Ethoxy-4-hydroxybenzaldehyde CAS RN®: 121-32-4.

### DEFINITION

Ethyl Vanillin, dried over phosphorus pentoxide for 4 h, contains NLT 98.0% and NMT 101.0% of  $C_9H_{10}O_3$ .

### 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

**Sample:** 300 mg of Ethyl Vanillin (previously dried)

#### Titrimetric system

(See [Titrimetry \(541\)](#).)

**Mode:** Direct titration

**Titrant:** 0.1 N sodium methoxide VS

**Blank:** 50 mL of dimethylformamide, accurately measured

**Endpoint detection:** Visual

**Analysis:** Transfer the *Sample solution* to a 125-mL conical flask, and dissolve in 50 mL of dimethylformamide. Add thymol blue TS and titrate, using a magnetic stirrer and taking precautions against the absorption of atmospheric carbon dioxide. Perform a blank determination.

Calculate the percentage of ethyl vanillin ( $C_9H_{10}O_3$ ) in the *Sample* taken:

$$\text{Result} = \{[(V_s - V_b) \times N \times F] / W\} \times 100$$

$V_s$  = *Titrant* volume consumed by the *Sample* (mL)

$V_b$  = *Titrant* volume consumed by the *Blank* (mL)

$N$  = actual normality of the *Titrant* (mEq/mL)

$F$  = equivalency factor, 166.2 mg/mEq

$W$  = *Sample* weight (mg)

**Acceptance criteria:** 98.0%–101.0% on the previously dried basis

### IMPURITIES

- [RESIDUE ON IGNITION \(281\)](#): NMT 0.1%

### SPECIFIC TESTS

- [MELTING RANGE OR TEMPERATURE \(741\)](#): 76°–78°

- [Loss on Drying \(731\)](#): Dry a sample over phosphorus pentoxide 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 Ethyl Vanillin RS](#)

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

| Topic/Question | Contact                                       | Expert Committee         |
|----------------|-----------------------------------------------|--------------------------|
| ETHYL VANILLIN | <a href="#">Documentary Standards Support</a> | SE2020 Simple Excipients |

Chromatographic Database Information: [Chromatographic Database](#)

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