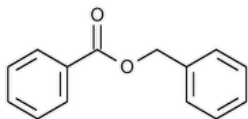


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Benzyl Benzoate



$C_{14}H_{12}O_2$ 212.24

Benzoic acid, phenylmethyl ester;

Benzyl benzoate CAS RN®: 120-51-4.

DEFINITION

Benzyl Benzoate contains NLT 99.0% and NMT 100.5% of $C_{14}H_{12}O_2$.

IDENTIFICATION

Change to read:

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

ASSAY

• PROCEDURE

Sample: 2 g of Benzyl Benzoate

Analysis: Transfer the *Sample* to a conical flask fitted with a reflux condenser. Add 50.0 mL of 0.5 N alcoholic potassium hydroxide VS, and boil gently for 1 h. Cool, add phenolphthalein TS, and titrate with 0.5 N hydrochloric acid VS. Perform a blank determination (see [Titrimetry \(541\)](#)). Each mL of 0.5 N alcoholic potassium hydroxide is equivalent to 106.1 mg of Benzyl Benzoate ($C_{14}H_{12}O_2$).

Acceptance criteria: 99.0%–100.5%

IMPURITIES

• LIMIT OF ALDEHYDES

Sample solution: Transfer 10.0 g to a 125-mL conical flask containing 50 mL of alcohol and 5 mL of hydroxylamine hydrochloride solution (3.5 in 100), mix, and allow to stand for 10 min.

Analysis: Add 1 mL of bromophenol blue TS, and titrate with 0.1 N sodium hydroxide VS to a light green endpoint. Perform a blank determination, and match the color of the endpoint with that of the titrated *Sample solution*.

Acceptance criteria: The net volume of 0.1 N sodium hydroxide consumed does not exceed 0.50 mL (0.05% as benzaldehyde).

SPECIFIC TESTS

- [SPECIFIC GRAVITY \(841\)](#): 1.116–1.120
- [CONGEALING TEMPERATURE \(651\)](#): Congelation may be brought about by the addition of a fragment of previously congealed Benzyl Benzoate when the temperature has reached the expected congealing temperature.

Acceptance criteria: NLT 18.0°

- [REFRACTIVE INDEX \(831\)](#): 1.568–1.570 at 20°
- **Acidity:** Add 2 drops of phenolphthalein TS to 25 mL of alcohol, and add 0.020 N sodium hydroxide until a pink color is produced. Add 5.0 g of Benzyl Benzoate, and titrate with 0.020 N sodium hydroxide.

Acceptance criteria: NMT 1.5 mL of 0.020 N sodium hydroxide is required to restore the pink color.

ADDITIONAL REQUIREMENTS

- **PACKAGING AND STORAGE:** Preserve in tight, well-filled, light-resistant containers, and avoid exposure to excessive heat.
- [USP REFERENCE STANDARDS \(11\)](#)
[USP Benzyl Benzoate RS](#)

Topic/Question	Contact	Expert Committee
BENZYL BENZOATE	Documentary Standards Support	SM12020 Small Molecules 1

Chromatographic Database Information: [Chromatographic Database](#)

Most Recently Appeared In:

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