



Edition: BP 2025 (Ph. Eur. 11.6 update)

Benzoic Acid Solution

[General Notices](#)

DEFINITION

Benzoic Acid	50 g
Propylene Glycol	750 mL
Purified Water, freshly boiled and cooled	Sufficient to produce 1000 mL

Extemporaneous preparation

The following directions apply.

Dissolve the Benzoic Acid in the Propylene Glycol and add sufficient Purified Water, in small quantities and with constant stirring, to produce 1000 mL.

Content of benzoic acid, $C_7H_6O_2$

4.75 to 5.25% w/v.

IDENTIFICATION

A. To 5 mL add 30 mL of 1M [sulfuric acid](#) and extract the precipitated acid with three 25-mL quantities of [petroleum spirit](#) (boiling range, 40° to 60°). Wash the combined extracts with three 25-mL quantities of [water](#), filter through absorbent cotton and evaporate to dryness. The [infrared absorption spectrum](#) of the residue, [Appendix II A](#), is concordant with the [reference spectrum](#) of benzoic acid ([RS 025](#)).

B. [Melting point](#) of the residue obtained in test A, about 121°, [Appendix V A](#).

TESTS

[Weight per mL](#)

1.045 to 1.055 g, [Appendix V G](#).

ASSAY

To 10 mL add 20 mL of [ethanol \(96%\)](#) previously neutralised to [phenolphthalein solution R1](#) and titrate with [0.1M sodium hydroxide VS](#) using [phenolphthalein solution R1](#) as indicator. Each mL of [0.1M sodium hydroxide VS](#) is equivalent to 12.21 mg of $C_7H_6O_2$.

