



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

## Benzyl Benzoate Application

### [General Notices](#)

Benzyl Benzoate Cutaneous Emulsion

### DEFINITION

Benzyl Benzoate Application is a *cutaneous emulsion*. It contains 25% w/v of Benzyl Benzoate in a suitable oil-in-water emulsified basis.

### Extemporaneous preparation

The following formula and directions apply.

Benzyl Benzoate	250 g
<a href="#">Emulsifying Wax</a>	20 g
Purified Water, freshly boiled and cooled	Sufficient to produce 1000 mL

Melt the [Emulsifying Wax](#), add the Benzyl Benzoate and mix. Pour the mixture into sufficient warm Purified Water to produce 1000 mL and stir thoroughly until cold.

*The application complies with the requirements stated under Liquids for Cutaneous Application and with the following requirements.*

### Content of benzyl benzoate, $C_{14}H_{12}O_2$

23.1 to 26.9% w/v.

### ASSAY

Carry out the method for [liquid chromatography](#), [Appendix III D](#), using the following solutions.

- (1) Dissolve 1 g of the application in sufficient of the mobile phase to produce 100 mL and dilute 1 volume of the resulting solution to 50 volumes with the mobile phase.
- (2) 0.0050% w/v of [benzyl benzoate BPCRS](#) in the mobile phase.

#### CHROMATOGRAPHIC CONDITIONS

- (a) Use a stainless steel column (20 cm × 4.6 mm) packed with [end-capped octadecylsilyl silica gel for chromatography](#) (10 µm) (Nucleosil C18 is suitable).
- (b) Use isocratic elution and the mobile phase described below.
- (c) Use a flow rate of 1.5 mL per minute.
- (d) Use an ambient column temperature.
- (e) Use a detection wavelength of 230 nm.
- (f) Inject 20 µL of each solution.

#### MOBILE PHASE

30 volumes of [water](#) and 70 volumes of [acetonitrile](#).

#### DETERMINATION OF CONTENT

Determine the [weight per mL](#) of the application, [Appendix V G](#), and calculate the content of  $C_{14}H_{12}O_2$ , weight in volume, using the declared content of  $C_{14}H_{12}O_2$  in [benzyl benzoate BPCRS](#).