



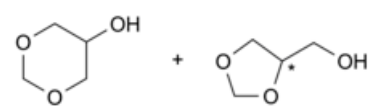
Edition: BP 2025 (Ph. Eur. 11.6 update)

Glycerol Formal



[General Notices](#)

(Ph. Eur. monograph 1671)



C₄H₈O₃ 104.1

Ph Eur

DEFINITION

Mixture of 1,3-dioxan-5-ol and (1,3-dioxolan-4-yl)methanol.

CHARACTERS

Appearance

Clear, colourless liquid.

Solubility

Miscible with water and with ethanol (96 per cent).

IDENTIFICATION

- A. Relative density (see Tests).
- B. Refractive index (see Tests).
- C. Infrared absorption spectrophotometry ([2.2.24](#)).

Comparison [glycerol formal CRS](#).

TESTS

Appearance

The substance to be examined is clear ([2.2.1](#)) and colourless ([2.2.2, Method II](#)).

pH (2.2.3)

4.0 to 6.5.

Dilute 1 mL to 10 mL with [carbon dioxide-free water R](#).

Relative density (2.2.5)

1.210 to 1.220.

Refractive index (2.2.6)

1.445 to 1.455.

Peroxide value (2.5.5)

Maximum 15.

Formaldehyde

Maximum 200 ppm.

Dilute 0.250 g to 10 mL with [water R](#). Add 2.0 mL of [acetylacetone reagent R2](#), mix and heat on a water-bath at 60 °C for 20 min. Cool and dilute to 20.0 mL with [water R](#). The absorbance (2.2.25) of the solution measured at 412 nm is not greater than that of a standard prepared at the same time and in the same manner using 5.0 mL of a dilution of [formaldehyde solution R](#) containing 10 µg of formaldehyde (CH₂O) per millilitre.

Water (2.5.12)

Maximum 0.5 per cent, determined on 5.000 g.

IMPURITIES

Specified impurities A.



A. formaldehyde.

STORAGE

Under nitrogen, in an airtight container.

Ph Eur