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

Glycerol Eye Drops

General Notices

DEFINITION

Glycerol Eye Drops are a sterile solution of Glycerol in Purified Water.

The eye drops comply with the requirements stated under Eye Preparations and with the following requirements.

Content of glycerol, $C_3H_8O_3$

95.0 to 105.0% of the stated amount.

IDENTIFICATION

Mix 1 mL of the eye drops with 0.5 mL of *nitric acid* and superimpose 0.5 mL of *potassium dichromate solution*. A blue ring develops at the interface of the liquids, which does not diffuse into the lower layer within 10 minutes.

TESTS

Acidity or alkalinity

pH, 4.5 to 7.5, Appendix V L.

ASSAY

Dilute a suitable volume of the eye drops with sufficient *water* to produce a solution containing 3% w/v of Glycerol. To 5 mL add 150 mL of *water* and neutralise with *0.1M sodium hydroxide VS*, using *bromocresol purple solution* as indicator. Add 1.6 g of *sodium periodate* and allow to stand protected from light for 15 minutes. Add 3 mL of *propan-1,2-diol*, shake, allow to stand protected from light for 5 minutes and titrate with *0.1M sodium hydroxide VS*. Each mL of *0.1M sodium hydroxide VS* is equivalent to 9.21 mg of $C_3H_8O_3$.

STORAGE

Glycerol Eye Drops should be protected from light.

Strengths available

Eye Drops containing 10, 20, 30 and 50% w/v of glycerol are available.