Quality standards

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

Paraldehyde Injection

General Notices

DEFINITION

Paraldehyde Injection is Paraldehyde that has been sterilised. It does not contain any added antimicrobial preservatives.

The injection complies with the requirements stated under Parenteral Preparations and with the following requirements.

IDENTIFICATION

- A. A 10.0% v/v solution in carbon dioxide-free water (solution A) is clear, Appendix IV A, but becomes turbid on warming.
- B. Heat 5 mL with 0.1 mL of 1_M sulfuric acid. Acetaldehyde is evolved.
- C. To 5 mL of solution A in a test tube add 5 mL of *ammoniacal* <u>silver nitrate solution</u> and heat on a water bath. Silver is deposited as a mirror on the side of the tube.

TESTS

Acidity

Titrate 50 mL of solution A with <u>0.1M sodium hydroxide VS</u> using 0.05 mL of <u>phenolphthalein solution</u> as indicator. Not more than 1.5 mL of <u>0.1M sodium hydroxide VS</u> is required to change the colour of the solution.

Distillation range

Not more than 10% distils below 123° and not less than 95% distils below 126°, Appendix V C.

Freezing point

10° to 13°, Appendix V B.

Refractive index

1.403 to 1.406, Appendix V E.

Relative density

0.991 to 0.996, Appendix V G.

Acetaldehyde

Shake 5 mL with a mixture of 5 mL of <u>ethanol</u> (60%), 5 mL of <u>alcoholic hydroxylamine solution</u> and 0.2 mL of <u>methyl</u> <u>orange solution</u>. Not more than 0.8 mL of <u>0.5m sodium hydroxide VS</u> is required to change the colour of the solution to

https://nhathuocngocanh.com/bp/pure yellow.

Peroxides

To 50 mL of solution A in a ground-glass-stoppered flask add 5 mL of 1M sulfuric acid and 10 mL of potassium iodide solution, close the flask and allow to stand in the dark for 15 minutes. Titrate with 0.1M sodium thiosulfate VS using 1 mL of starch solution as indicator; allow to stand for 5 minutes and, if necessary, complete the titration. Not more than 2.0 mL of 0.1M sodium thiosulfate VS is required.

STORAGE

Paraldehyde Injection should be supplied in single-dose glass ampoules sealed by fusion of the glass. It should be kept in complete darkness.