



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

Strong Glutaraldehyde Solution

[General Notices](#)



$C_5H_8O_2$ 100.1 (anhydrous) 111-30-8

Action and use

Used in treatment of warts.

Preparation

[Glutaraldehyde Solution](#)

DEFINITION

Strong Glutaraldehyde Solution is an aqueous solution of glutaraldehyde (pentanedial). It contains not less than 47.0% and not more than 53.0% w/w of glutaraldehyde, $C_5H_8O_2$.

CHARACTERISTICS

A colourless or almost colourless solution.

IDENTIFICATION

- A. Heat 1 mL with 10 mL of a solution containing 1 g of [hydroxylamine hydrochloride](#) and 2 g of [sodium acetate](#) in [water](#) on a water bath for 10 minutes, allow to cool and filter. The [melting point](#) of the residue, after washing with [water](#) and drying at 105°, is about 178°, [Appendix V A](#).
- B. Add 0.05 mL to 2 mL of *ammoniacal* [silver nitrate solution](#) and mix gently for a few minutes. Silver is deposited.

TESTS

Acidity

Dilute 10 mL with 10 mL of [carbon dioxide-free water](#) and titrate with [0.1M sodium hydroxide VS](#) using [bromothymol blue solution R3](#) as indicator. Not more than 5.0 mL of [0.1M sodium hydroxide VS](#) is required to change the colour of the solution.

Clarity and colour of solution

Dilute 1 volume with 4 volumes of [water](#). The resulting solution is *clear*, [Appendix IV A](#), and not more intensely coloured than *reference solution B₆*, [Appendix IV B](#), Method I.

Weight per mL

1.126 to 1.134 g, [Appendix V G](#).

ASSAY

Dissolve 4 g in 100 mL of a 7% w/v solution of [hydroxylamine hydrochloride](#) previously neutralised to [bromophenol blue solution](#) with [1M sodium hydroxide VS](#) and allow to stand for 30 minutes. Add 20 mL of [petroleum spirit](#) (boiling range, 40° to 60°) and titrate with [1M sodium hydroxide VS](#) until the colour of the aqueous phase matches that of a 7% w/v solution of [hydroxylamine hydrochloride](#) previously neutralised to [bromophenol blue solution](#) with [1M sodium hydroxide VS](#). Each mL of [1M sodium hydroxide VS](#) is equivalent to 50.05 mg of C₅H₈O₂.

STORAGE

Strong Glutaraldehyde Solution should be stored at a temperature not exceeding 15°.