



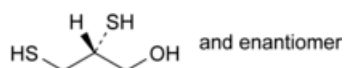
Edition: BP 2025 (Ph. Eur. 11.6 update)

Dimercaprol



[General Notices](#)

(Ph. Eur. monograph 0389)



C₃H₈OS₂ 124.2 59-52-9

Action and use

Chelating agent for use in heavy metal poisoning.

Preparation

[Dimercaprol Injection](#)

When B.A.L. is prescribed or demanded, Dimercaprol shall be dispensed or supplied.

Ph Eur

DEFINITION

(2*RS*)-2,3-Disulfanylpropan-1-ol.

Content

98.5 per cent to 101.5 per cent.

CHARACTERS

Appearance

Clear, colourless or slightly yellow liquid.

Solubility

Soluble in water and in arachis oil, miscible with ethanol (96 per cent) and with benzyl benzoate.

IDENTIFICATION

A. Dissolve 0.05 mL in 2 mL of [water R](#). Add 1 mL of [0.05 M iodine](#). The colour of the iodine is discharged immediately.

- B. Dissolve 0.1 mL in 5 mL of [water R](#) and add 2 mL of [copper sulfate solution R](#). A bluish-black precipitate is formed which quickly becomes dark grey.
- C. In a ground-glass-stoppered tube, suspend 0.6 g of [sodium bismuthate R](#), previously heated to 200 °C for 2 h, in a mixture of 2.8 mL of [dilute phosphoric acid R](#) and 6 mL of [water R](#). Add 0.2 mL of the substance to be examined, mix and allow to stand for 10 min with frequent shaking. To 1 mL of the supernatant add 5 mL of a 4 g/L solution of [chromotropic acid](#), [sodium salt R](#) in [sulfuric acid R](#) and mix. Heat in a water-bath for 15 min. A violet-red colour develops.

TESTS

Appearance

It is clear ([2.2.1](#)) and not more intensely coloured than reference solution B₆ or BY₆ ([2.2.2, Method II](#)).

Acidity or alkalinity

Dissolve 0.2 g in [carbon dioxide-free water R](#) and dilute to 10 mL with the same solvent. Add 0.25 mL of [bromocresol green solution R](#) and 0.3 mL of [0.01 M hydrochloric acid](#). The solution is yellow. Not more than 0.5 mL of [0.01 M sodium hydroxide](#) is required to change the colour of the indicator to blue.

Refractive index ([2.2.6](#))

1.568 to 1.574.

Halides

To 2.0 g add 25 mL of [alcoholic potassium hydroxide solution R](#) and boil under a reflux condenser for 2 h. Eliminate the ethanol by evaporation in a stream of hot air. Add 20 mL of [water R](#) and cool. Add 40 mL of [water R](#) and 10 mL of [strong hydrogen peroxide solution R](#), boil gently for 10 min, cool and filter rapidly. Add 10 mL of [dilute nitric acid R](#) and 5.0 mL of [0.1 M silver nitrate](#). Using 2 mL of [ferric ammonium sulfate solution R2](#) as indicator, titrate with [0.1 M ammonium thiocyanate](#) until a reddish-yellow colour is obtained. Carry out a blank titration. The difference between the titration volumes is not greater than 1.0 mL.

ASSAY

Dissolve 0.100 g in 40 mL of [methanol R](#). Add 20 mL of [0.1 M hydrochloric acid](#) and 50.0 mL of [0.05 M iodine](#). Allow to stand for 10 min and titrate with [0.1 M sodium thiosulfate](#). Carry out a blank titration.

1 mL of [0.05 M iodine](#) is equivalent to 6.21 mg of C₃H₈OS₂.

STORAGE

In a well-filled, airtight container, protected from light, at a temperature of 2 °C to 8 °C.

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