



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

Magnesium Chloride Injection

[General Notices](#)

DEFINITION

Magnesium Chloride Injection is a sterile solution of Magnesium Chloride Hexahydrate in Water for Injections.

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

Content of magnesium chloride hexahydrate, $\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$

95.0 to 105.0% of the stated amount.

CHARACTERISTICS

A clear, colourless solution.

IDENTIFICATION

Yields the reactions characteristic of [magnesium](#) salts and of *chlorides*, [Appendix VI](#).

Acidity or alkalinity

pH, 5.0 to 8.0, [Appendix V L](#).

ASSAY

Dilute a volume containing 2.5 g of Magnesium Chloride Hexahydrate to 100 mL with [water](#). To 20 mL of this solution add 10 mL of [ammonia buffer pH 10.9](#) and titrate with [0.1M disodium edetate VS](#) using 0.1 g of [mordant black 11 triturate](#) as indicator, until the pink tint is discharged from the blue colour. Each mL of [0.1M disodium edetate VS](#) is equivalent to 20.33 mg of $\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$.

LABELLING

The strength is stated as the percentage w/v of Magnesium Chloride Hexahydrate and as the approximate concentration of magnesium ions (Mg^{2+}) in millimoles per mL.

For a preparation containing 10% w/v of Magnesium Chloride Hexahydrate, the concentration of magnesium ions is approximately 0.5 millimoles per millilitre (0.5 mmol Mg^{2+} /mL).

