



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

Magnesium Hydroxide



[General Notices](#)

(Ph. Eur. monograph 0039)

Mg(OH)₂ 58.32 1309-42-8

Action and use

Antacid; osmotic laxative.

Preparations

[Co-magaldrox Oral Suspension](#)

[Co-magaldrox Tablets](#)

[Magnesium Hydroxide Mixture](#)

Ph Eur

DEFINITION

Content

95.0 per cent to 100.5 per cent of Mg(OH)₂.

CHARACTERS

Appearance

White or almost white, fine, amorphous powder.

Solubility

Practically insoluble in water. It dissolves in dilute acids.

IDENTIFICATION

- A. Dissolve about 15 mg in 2 mL of [dilute nitric acid R](#) and neutralise with [dilute sodium hydroxide solution R](#). The solution gives the reaction of magnesium ([2.3.1](#)).
- B. Loss on ignition (see Tests).

TESTS

Solution S

Dissolve 5.0 g in a mixture of 50 mL of [acetic acid R](#) and 50 mL of [distilled water R](#). Not more than slight effervescence is produced. Boil for 2 min, cool and dilute to 100 mL with [dilute acetic acid R](#). Filter, if necessary, through a previously ignited and tared porcelain or silica filter crucible of suitable porosity to give a clear filtrate. Keep the residue for the test for substances insoluble in acetic acid.

Appearance of solution

Solution S is not more intensely coloured than reference solution B₃ ([2.2.2, Method II](#)).

Soluble substances

Maximum 2.0 per cent.

Mix 2.00 g with 100 mL of [water R](#) and boil for 5 min. Filter whilst hot through a sintered-glass filter (40) ([2.1.2](#)), allow to cool and dilute to 100 mL with [water R](#). Evaporate 50 mL of the filtrate to dryness and dry at 100-105 °C. The residue weighs a maximum of 20 mg.

Substances insoluble in acetic acid

Maximum 0.1 per cent.

Any residue obtained during the preparation of solution S, washed, dried, and ignited at 600 ± 50 °C, weighs not more than 5 mg.

Chlorides ([2.4.4](#))

Maximum 0.1 per cent.

Dilute 1 mL of solution S to 15 mL with [water R](#).

Sulfates ([2.4.13](#))

Maximum 1.0 per cent.

Dilute 0.3 mL of solution S to 15 mL with [distilled water R](#).

Calcium ([2.4.3](#))

Maximum 1.5 per cent.

Dilute 1.3 mL of solution S to 150 mL with [distilled water R](#).

Iron ([2.4.9](#))

Maximum 0.07 per cent.

Dissolve 0.15 g in 5 mL of [*dilute hydrochloric acid R*](#) and dilute to 10 mL with [*water R*](#). Dilute 1 mL of the solution to 10 mL with [*water R*](#).

Loss on ignition

29.0 per cent to 32.5 per cent.

Heat 0.5 g gradually to 900 ± 50 °C and ignite to constant mass.

ASSAY

Dissolve 0.100 g in a mixture of 2 mL of [*dilute hydrochloric acid R*](#) and 20 mL of [*water R*](#). Carry out the complexometric titration of magnesium ([2.5.11](#)).

1 mL of [0.1 M sodium edetate](#) is equivalent to 5.832 mg of Mg(OH)_2 .

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