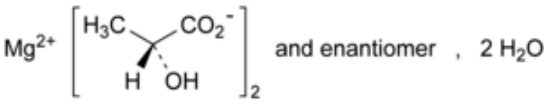
Edition: BP 2025 (Ph. Eur. 11.6 update)

# Magnesium Lactate Dihydrate

General Notices

*(Ph. Eur. monograph 2160)*




$C_6H_{10}MgO_6,2H_2O$ 238.5

Ph Eur

## DEFINITION

Magnesium bis(2-hydroxypropanoate) or mixture of magnesium (2*R*)-, (2*S*)- and (2*RS*)-2-hydroxypropanoate dihydrate.

### Content

98.0 per cent to 102.0 per cent (dried substance).

## CHARACTERS

### Appearance

White or almost white, crystalline or granular powder.

### Solubility

Slightly soluble in water, soluble in boiling water, practically insoluble in ethanol (96 per cent).

## IDENTIFICATION

A. It gives the reaction of lactates (*2.3.1*).
B. It gives the reaction of magnesium (*2.3.1*).

## TESTS

**Solution S**

Dissolve 5.0 g with heating in *carbon dioxide-free water R* prepared from *distilled water R*, allow to cool and dilute to 100 mL with the same solvent.

**Appearance of solution**

Solution S is not more opalescent than reference suspension II (*2.2.1*) and not more intensely coloured than reference solution $BY_6$ (*2.2.2, Method II*).

**pH** (*2.2.3*)

6.5 to 8.5 for solution S.

**Chlorides** (*2.4.4*)

Maximum 200 ppm.

Dilute 5 mL of solution S to 15 mL with *water R*.

**Sulfates** (*2.4.13*)

Maximum 400 ppm.

Dilute 7.5 mL of solution S to 15 mL with *distilled water R*.

**Iron** (*2.4.9*)

Maximum 50 ppm.

Dilute 4 mL of solution S to 10 mL with *water R*.

**Loss on drying** (*2.2.32*)

14.0 per cent to 17.0 per cent, determined on 0.500 g by drying in an oven at 125 °C.

## ASSAY

Dissolve 0.180 g in *water R* and dilute to 300 mL with the same solvent. Carry out the complexometric titration of magnesium (*2.5.11*).

1 mL of *0.1 M sodium edetate* is equivalent to 20.25 mg of $C_6H_{10}MgO_6$.