



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

Zinc Sulfate Hexahydrate



[General Notices](#)

(Ph. Eur. monograph 1683)

ZnSO₄·6H₂O 269.5 13986-24-8

Action and use

Astringent.

Ph Eur

DEFINITION

Content

99.0 per cent to 104.0 per cent.

CHARACTERS

Appearance

White or almost white, crystalline powder or colourless transparent crystals, efflorescent.

Solubility

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

IDENTIFICATION

- A. Solution S (see Tests) gives the reactions of sulfates ([2.3.1](#)).
- B. Solution S gives the reaction of zinc ([2.3.1](#)).
- C. It complies with the limits of the assay.

TESTS

Solution S

Dissolve 2.5 g in [carbon dioxide-free water R](#) and dilute to 50 mL with the same solvent.

Appearance of solution

Solution S is clear ([2.2.1](#)) and colourless ([2.2.2, Method II](#)).

pH ([2.2.3](#))

4.4 to 5.6 for solution S.

Chlorides ([2.4.4](#))

Maximum 300 ppm.

Dilute 3.3 mL of solution S to 15 mL with [water R](#).

Iron ([2.4.9](#))

Maximum 100 ppm.

Dilute 2 mL of solution S to 10 mL with [water R](#). Use in this test 0.5 mL of [thioglycollic acid R](#).

ASSAY

Dissolve 0.200 g in 5 mL of [dilute acetic acid R](#). Carry out the complexometric titration of zinc ([2.5.11](#)).

1 mL of [0.1 M sodium edetate](#) is equivalent to 26.95 mg of $\text{ZnSO}_4 \cdot 6\text{H}_2\text{O}$.

STORAGE

In a non-metallic, airtight container.

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