



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

## Zinc Sulfate Heptahydrate



### [General Notices](#)

(Ph. Eur. monograph 0111)

ZnSO<sub>4</sub>·7H<sub>2</sub>O 287.5 7446-20-0

### Action and use

Astringent.

### Preparations

[Zinc Sulfate Eye Drops](#)

[Zinc Sulfate Injection](#)

[Zinc Sulfate Lotion](#)

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## 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 28.75 mg of  $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$ .

## **STORAGE**

In a non-metallic, airtight container.

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