



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

## Macrogol 30 Dipolyhydroxystearate



### [General Notices](#)

(Ph. Eur. monograph 2584)

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## DEFINITION

Mixture of mainly diesters of polymerised 12-hydroxystearic ((12 $\Xi$ )-hydroxyoctadecanoic) acid and [Macrogols \(1444\)](#) obtained by esterification of macrogol with 12-hydroxystearic acid. The average number of moles of ethylene oxide reacted per mole of substance is 30.

## CHARACTERS

### Appearance

Brownish-red, waxy mass.

### Solubility

Practically insoluble in water, very soluble in methylene chloride and soluble in most aliphatic and aromatic hydrocarbons.

### mp

30 °C to 40 °C.

## IDENTIFICATION

A. Infrared absorption spectrophotometry ([2.2.24](#)).

Comparison [macrogol 30 dipolyhydroxystearate CRS](#).

B. Hydroxyl value (see Tests).

C. Saponification value (see Tests).

## TESTS

### Acid value (2.5.1)

Maximum 10.0.

### Hydroxyl value (2.5.3, *Method A*)

12 to 30.

### Iodine value (2.5.4, *Method A*)

Maximum 10.0.

### Peroxide value (2.5.5)

Maximum 5.0.

### Saponification value (2.5.6)

125 to 145, determined on 2.0 g.

Use 30.0 mL of 0.5 M alcoholic potassium hydroxide, heat under reflux for 60 min and add 50 mL of anhydrous ethanol R before carrying out the titration.

### Water (2.5.12)

Maximum 1.0 per cent, determined on 0.50 g.

### Sulfated ash (2.4.14)

Maximum 0.5 per cent.

Heat a silica crucible to redness for 30 min, allow to cool in a desiccator and weigh. Evenly distribute 1.0 g in the crucible and weigh. Dry at 100-105 °C for 1 h and ignite in a muffle furnace at 600 ± 25 °C, until the substance is thoroughly charred. Carry out the test for sulfated ash (2.4.14) on the residue obtained, starting from “Moisten the substance to be examined...”.

## STORAGE

In an airtight container.

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