



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

Triglycerol Diisostearate



[General Notices](#)

(Ph. Eur. monograph 2032)

Ph Eur

DEFINITION

Mixture of polyglycerol diesters of mainly isostearic acid, obtained by esterification of polyglycerol and isostearic acid. The polyglycerol consists mainly of triglycerol.

CHARACTERS

Appearance

Clear, yellowish, viscous liquid.

Solubility

Practically insoluble in water, miscible with ethanol (96 per cent) and with fatty oils.

IDENTIFICATION

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

Preparation Film between 2 plates of [sodium chloride R](#).

Comparison [triglycerol diisostearate CRS](#).

B. Composition of fatty acids (see Tests).

TESTS

Appearance of solution

The solution is not more intensely coloured than reference solution BY₃ ([2.2.2, Method I](#)).

Mix 10 mL with 10 mL of [ethanol \(96 per cent\) R](#).

[Acid value \(2.5.1\)](#)

Maximum 3.0, determined on 1.0 g.

Hydroxyl value (2.5.3, Method A)

180 to 230, determined on 0.25 g.

Iodine value (2.5.4, Method B)

Maximum 5.0.

Peroxide value (2.5.5, Method B)

Maximum 6.0.

Saponification value (2.5.6)

128 to 160.

Composition of fatty acids (2.4.22, Method B)

Use the mixture of calibrating substances in Table 2.4.22.-1.

Composition of the fatty-acid fraction of the substance:

- *sum of the contents of the fatty acids eluting between palmitic acid and stearic acid:* minimum 60.0 per cent;
- *sum of the contents of myristic acid, palmitic acid and stearic acid:* maximum 11.0 per cent.

Water (2.5.12)

Maximum 0.5 per cent, determined on 2.00 g.

Sulfated ash

Maximum 0.5 per cent, determined on 1.0 g.

Heat a silica crucible to redness for 30 min, allow to cool in a desiccator and weigh. Evenly distribute 1.00 g of the substance to be examined in the crucible and weigh. Dry at 100-105 °C for 1 h and ignite in a muffle furnace at 600 °C ± 25 °C until the substance is thoroughly charred. Carry out the test for sulfated ash (2.4.14) on the residue obtained, starting with "Moisten the substance to be examined...".

STORAGE

In an airtight container, protected from light.

Ph Eur