



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

Isopropyl Isostearate



[General Notices](#)

(Ph. Eur. monograph 2867)

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DEFINITION

Product obtained by esterification of isostearic acid (regioisomers mainly of octadecanoic acid, a complex mixture of branched and straight-chain fatty acids) with isopropyl alcohol. The monograph applies to isopropyl isostearate for cutaneous use.

CHARACTERS

Appearance

Clear, colourless or pale yellow liquid.

Solubility

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

[Viscosity](#)

About 11 mPa·s at 20 °C.

[Relative density](#)

About 0.866 at 20 °C.

[Refractive index](#)

About 1.447 at 20 °C.

IDENTIFICATION

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

Comparison [isopropyl isostearate CRS](#).

An additional weak absorption band at 1780 cm⁻¹ may be present.

B. Saponification value (see Tests).

C. Composition of fatty acids (see Tests).

TESTS

Appearance of solution

The solution is not more intensely coloured than reference solution Y₇ ([2.2.2, Method II](#)).

Dissolve 10.0 g in [ethanol \(96 per cent\) R](#) and dilute to 20 mL with the same solvent.

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

Maximum 1.0, determined on 20.0 g.

[Iodine value \(2.5.4, Method B\)](#)

Maximum 3.0, determined on 3.0 g.

[Peroxide value \(2.5.5, Method B\)](#)

Maximum 5.0.

[Saponification value \(2.5.6\)](#)

165 to 180, determined on 2.0 g.

[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 65.0 per cent;
- *sum of the contents of myristic acid, palmitic acid and stearic acid:* maximum 11.0 per cent.

[Water \(2.5.12\)](#)

Maximum 0.1 per cent, determined on 5.00 g.

[Sulfated ash \(2.4.14\)](#)

Maximum 0.1 per cent, determined on 1.0 g.

STORAGE

In an airtight container.

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