



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

Virgin Almond Oil



[General Notices](#)

Almond Oil

(*Ph. Eur. monograph 0261*)

Preparation

[Almond Oil Ear Drops](#)

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DEFINITION

Fatty oil obtained by cold expression from the ripe seeds of *Prunus dulcis* (Mill.) D.A.Webb var. *dulcis* or *Prunus dulcis* (Mill.) D.A.Webb var. *amara* (DC.) Buchheim or a mixture of both varieties.

CHARACTERS

Appearance

Yellow, clear liquid.

Solubility

Slightly soluble in ethanol (96 per cent), miscible with light petroleum.

[Relative density](#)

About 0.916.

It solidifies at about -18 °C.

IDENTIFICATION

First identification: A, C.

Second identification: A, B.

- A. Absorbance (see Tests).
- B. Identification of fatty oils by thin-layer chromatography ([2.3.2](#)).

Results The chromatogram obtained is similar to the corresponding chromatogram shown in Figure 2.3.2.-1.

- C. Composition of fatty acids (see Tests).

TESTS

Specific absorbance ([2.2.25](#))

Maximum 0.2, determined at the absorption maximum at 270 nm. The ratio of the absorbance measured at 232 nm to that measured at 270 nm is greater than 7.

To 0.100 g add [cyclohexane R](#) and dilute to 10.0 mL with the same solvent. Adapt the concentration of the solution so that the absorbance lies between 0.5 and 1.5, measured in a 1 cm cell.

Acid value ([2.5.1](#))

Maximum 2.0, determined on 5.0 g.

Peroxide value ([2.5.5, Method A](#))

Maximum 15.0.

Unsaponifiable matter ([2.5.7](#))

Maximum 0.9 per cent, determined on 5.0 g.

Composition of fatty acids ([2.4.22, Method A](#))

Use the mixture of calibrating substances in Table 2.4.22.-3.

Composition of the fatty-acid fraction of the oil:

- *saturated fatty acids of chain length less than C₁₆*: maximum 0.1 per cent,
- [palmitic acid](#): 4.0 per cent to 9.0 per cent,
- [palmitoleic acid](#): maximum 0.8 per cent,
- *margaric acid*: maximum 0.2 per cent,
- [stearic acid](#): maximum 3.0 per cent,
- [oleic acid](#): 62.0 per cent to 86.0 per cent,
- [linoleic acid](#): 20.0 per cent to 30.0 per cent,
- [linolenic acid](#): maximum 0.4 per cent,
- *arachidic acid*: maximum 0.2 per cent,
- *eicosenoic acid*: maximum 0.3 per cent,
- *behenic acid*: maximum 0.2 per cent,
- *erucic acid*: maximum 0.1 per cent.

Sterols ([2.4.23](#))

Composition of sterol fraction of the oil:

- [cholesterol](#): maximum 0.7 per cent,
- [campesterol](#): maximum 4.0 per cent,
- [stigmasterol](#): maximum 3.0 per cent,
- [β-sitosterol](#): 73.0 per cent to 87.0 per cent,

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- Δ^5 -avenasterol: minimum 10.0 per cent,
- Δ^7 -stigmastenol: maximum 3.0 per cent,
- Δ^7 -avenasterol: maximum 3.0 per cent,
- brassicasterol: maximum 0.3 per cent.

Water (2.5.32)

Maximum 0.1 per cent, determined on 1.00 g.

STORAGE

In a well-filled container, protected from light.

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