INTERNATIONAL STANDARD

ISO 3527

Third edition
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Essential oil of parsley fruits (*Petroselinum sativum* Hoffm.)

*Huile essentielle de fruits de persil (*Petroselinum sativum *Hoffm.)*

Reference number
ISO 3527:2016(E)

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information.

The committee responsible for this document is ISO/TC 54, *Essential oils.*

This third edition cancels and replaces the second edition (ISO 3527:2000), of which it constitutes a minor revision.

Essential oil of parsley fruits (*Petroselinum sativum* Hoffm.)

1 Scope

This International Standard specifies certain characteristics of the essential oil of parsley fruits (*Petroselinum sativum* Hoffm.), in order to facilitate assessment of its quality.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/TS 210, *Essential oils — General rules for packaging, conditioning and storage*

ISO/TS 211, *Essential oils — General rules for labelling and marking of containers*

ISO 212, *Essential oils — Sampling*

ISO 279, *Essential oils — Determination of relative density at 20 °C — Reference method*

ISO 280, *Essential oils — Determination of refractive index*

ISO 592, *Essential oils — Determination of optical rotation*

ISO 709, *Essential oils — Determination of ester value*

ISO 875, *Essential oils — Evaluation of miscibility in ethanol*

ISO 1242, *Essential oils — Determination of acid value*

ISO 11024 (all parts), *Essential oils — General guidance on chromatographic profiles*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
essential oil of parsley fruits
essential oil obtained by steam distillation of the ripe fruits of cultivated parsley (*Petroselinum sativum* Hoffm.) of the Apiaceae family

Note 1 to entry: Essential oil of parsley fruits is commercially known as “essential oil of parsley seed”.

Note 2 to entry: For information on CAS number, see ISO/TR 21092.

4 Requirements

4.1 Appearance

Clear liquid, sometimes crystallized.

4.2 Colour

Almost colourless to amber yellow.

4.3 Odour

Characteristic of the crushed fruit, but distinct from that of the green part of the plant.

4.4 Relative density at 20 °C, d_{20}^{20}

Minimum: 1,043

Maximum: 1,083

4.5 Refractive index at 20 °C

Minimum: 1,513 0

Maximum: 1,522 0

4.6 Optical rotation at 20 °C

Between –10° and –4°.

4.7 Miscibility in 85 % ethanol (volume fraction) at 20 °C

It shall not be necessary to use more than six volumes of 85 % ethanol (volume fraction) to obtain a clear solution with one volume of essential oil.

4.8 Acid value

Maximum: 4

4.9 Ester value

Minimum: 1

Maximum: 10

4.10 Chromatographic profile

Carry out the analysis of the essential oil by gas chromatography. Identify in the chromatogram obtained, the representative and characteristic components shown in Table 1. The proportions of these components, indicated by the integrator, shall be as shown in Table 1. This constitutes the chromatographic profile of the essential oil.

Table 1 — Chromatographic profile

Component	Min. %	Max. %
α-Pinene	10	22
β-Pinene	7	15
Myristicin	25	50
Apiol	5	35
1,2,3,4-Tetramethoxy-5-allylbenzene	1	12
Elemicin	1	12
NOTE The chromatographic profile is normative, contrary to typical chromatograms given for information in Annex A.		