
Essential oil of bergamot [*Citrus bergamia* Risso et Poit], Calabrian type

*Huile essentielle de bergamote [*Citrus bergamia* Risso et Poit], type calabrais*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 54, *Essential oils*.

This third edition cancels and replaces the second edition (ISO 3520:1998), which has been technically revised.

The main changes are as follows:

- the title has been changed;
- the structure has been revised;
- [3.1](#) has been reworded to update the botanical name to *Citrus bergamia* Risso et Poit and to add the Calabrian type;
- in [4.1](#), minor changes to a) relative density (formerly 0,883 max); b) refractive index (formerly 1,470 max); c) optical rotation (formerly +32° max); d) residue on evaporation (formerly 6,40 % max); and e) CD value (formerly 1,180 max) have been included;
- in [4.2](#), β -pinene % max has been reduced (formerly 9,5 %) and limonene % max has been increased (formerly 45 %);
- in [Annex A](#), the chromatograms in [Figures A.1](#) and [A.2](#) and the data have been updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Essential oil of bergamot [*Citrus bergamia* Risso et Poit], Calabrian type

1 Scope

This document specifies certain characteristics of the essential oil of bergamot (*Citrus bergamia* Risso et Poit), Calabrian type, with a view to facilitate the assessment of its quality.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. 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 4715, *Essential oils — Quantitative evaluation of residue on evaporation*

ISO 4735, *Oils of Citrus — Determination of CD value by ultraviolet spectrometric analysis*

ISO 7358, *Essential oils of bergamot, lemon, bitter orange and lime, fully or partially reduced in bergapten — Determination of bergapten content by high-performance liquid chromatography (HPLC)*

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.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>