International Standard

ISO 19851

Traditional Chinese medicine — *Cinnamomum cassia* branch

Médecine traditionnelle chinoise — Branche de Cinnamomum cassia

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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 document 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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This document was prepared by Technical Committee ISO/TC 249, *Traditional Chinese medicine*.

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.

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Introduction

Cinnamomum cassia branch, the dried young branch of *Cinnamomum cassia* Presl (Lauraceae), has been used as a medicinal herb worldwide for a long time. According to traditional Chinese medicine (TCM) theory, it has various therapeutic effects, including dissipating cold and releasing the exterior, warming and unblocking meridians, assisting yang and transforming into qi. Clinically, *Cinnamomum cassia* branch is used to treat wind-cold common cold, cold-induced stomach duct and abdominal pain, arthralgia, phlegm-fluid retention, oedema, palpitations, running piglet, etc.

There is a large market demand for *Cinnamomum cassia* branch due to its frequent use in clinical prescriptions and compound preparations of TCM. However, cinnamaldehyde, one of the active ingredients of *Cinnamomum cassia* branch, becomes unstable when stored improperly and can lead to reduced efficacy. Moreover, the international trade of *Cinnamomum cassia* branch faces challenges due to varying in quality standards across different countries or regions.

To ensure the quality and enhance the market value of *Cinnamomum cassia* branch, the establishment of an International Standard is crucial. This document can help guarantee quality and clinical effectiveness, promote standardization and modernization, and regulate production, trade and usage. This document includes the following requirements for *Cinnamomum cassia* branch: macroscopic morphological observation, microscopic characteristics of transverse section and powder, phytochemical indexes, and standardized physical and chemical tests (moisture, total ash, and ethanol-extractives content). Volatile oils are the main active ingredient in Lauraceae plants. Among them, cinnamaldehyde, which has specific pharmacological activities such as anti-inflammation, anti-oxidation and anti-myocardial ischemia, is closely related to the biological activity of *Cinnamomum cassia* branch. In this document, a thin-layer chromatography (TLC) identification method using *Cinnamomum cassia* branch reference as a marker is established. Additionally, a high-performance liquid chromatography (HPLC) analysis method of *Cinnamomum cassia* branch using cinnamaldehyde as a marker is also developed.

As national implementation can differ, national standards bodies are invited to modify the values given in 5.5 and 5.6 in their national standards. An example of national values is given in Annex D.

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Traditional Chinese medicine — *Cinnamomum cassia* branch

1 Scope

This document specifies the quality and safety requirements for *Cinnamomum cassia* branch derived from *Cinnamomum cassia* Presl.

This document is applicable to *Cinnamomum cassia* branch that is sold as natural medicines in international trade including Chinese materia medica (whole medicinal materials) and decoction pieces derived from *Cinnamomum cassia* Presl.

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 18664, *Traditional Chinese Medicine — Determination of heavy metals in herbal medicines used in Traditional Chinese Medicine*

ISO 21371, *Traditional Chinese medicine — Labelling requirements of products intended for oral or topical use*

ISO 22258, *Traditional Chinese medicine — Determination of pesticide residues in natural products by gas chromatography*

ISO 22590, *Traditional Chinese medicine — Determination of sulfur dioxide in natural products by titration*

ISO 23723, *Traditional Chinese medicine — General requirements for herbal raw material and materia medica*

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/

3.1
***Cinnamomum cassia* branch**
dried young branch of *Cinnamomum cass*ia Presl. (Fam. Lauraceae)

3.2
marker compound
chemical constituent within a medicinal herb that can be used to verify its quality

Note 1 to entry: Usually described as active ingredients or chemicals that confirm the correct botanical identity of the starting material.

Note 2 to entry: There may be one or more marker compounds for a medicinal herb.

[SOURCE: ISO 22585:2022, 3.2]

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