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Date: 19 June 2025

Origin: International

Latest date for receipt of comments: 12 August 2025

Project No. 2024/00721

Responsible committee: CH/100 Healthcare and Medical Equipment

Interested committees:

Title: Draft BS ISO 24902 Traditional Chinese medicine - Zanthoxylum nitidum root.

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/DIS 24902

Traditional Chinese medicine — *Zanthoxylum nitidum* root

ICS: 11.120.10

ISO/TC 249/SC 1

Secretariat: **SAC**

Voting begins on:
2025-06-19

Voting terminates on:
2025-09-11

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Reference number
ISO/DIS 24902:2025(en)

Full document details: 25/30488621 DC

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Published in Switzerland

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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).

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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.

Introduction

Zanthoxylum nitidum root is the dried root of *Zanthoxylum nitidum* (Roxb.) DC., which is known in China as Liang-Mian-Zhen. It is mainly distributed in southern China and Vietnam. *Zanthoxylum nitidum* root and its products are sold in China, Japan, Thailand, Myanmar, Singapore, Malaysia, the United States, Uganda, and many other countries. It is widely used in traditional Chinese medicine for treating stomachache, toothache, rheumatic arthralgia, traumatic injury, and venomous snake bites. Additional medical applications include the treatment of inflammations, various types of cancer, bacterial and viral infections, gastric and oral ulcers, and liver damage.

Zanthoxylum nitidum root contains a variety of effective chemical components, including alkaloids, coumarins, lignans, sterols, flavonoids, and volatile oils, among which alkaloids have the highest content, accounting for about 0,7 %. Modern pharmacological studies have shown that *Zanthoxylum nitidum* root has anti-inflammatory, analgesic, antioxidant, and anti-tumour activities. The anti-inflammatory and analgesic effects of *Zanthoxylum nitidum* root are widely used in the treatment of bruises, stomach pain, toothache, and rheumatism.

The alkaloids are the main active components of *Zanthoxylum nitidum* root. Nitidine chloride is one of the most frequently used alkaloids in *Zanthoxylum nitidum* root to study its various pharmacological effects.

At the same time, studies have also shown that the alkaloids in *Zanthoxylum nitidum* root have a certain degree of toxicity and can cause toxic effects such as hepatocyte toxicity, renal cytotoxicity, developmental toxicity, and cardiotoxicity.

On the market, the quality of *Zanthoxylum nitidum* root is uneven. There are forgeries and adulterations. The common forgeries and confused products of *Zanthoxylum nitidum* root are the stem of *Zanthoxylum nitidum* (Roxb.) DC. and roots from the plants of *Toddalia asiatica* (L.) Lam., *Zanthoxylum armatum* DC., *Zanthoxylum dimorphophyllum* Hemsl. var. *spinifolium* Rehd.et Wils..

The quality evaluation of *Zanthoxylum nitidum* root in Chinese Pharmacopoeia has inspection items that are different from *Zanthoxylum nitidum* (Roxb.) DC. prodr. var. *tomentosum* Huang..

The development of standards for the quality and safety control of *Zanthoxylum nitidum* root can now provide a reference for the better development and use of *Zanthoxylum nitidum* root. Moreover, *Zanthoxylum nitidum* root is ranked the 94 in the ISO/TR 23975: 2025 Traditional Chinese medicine — Priority list of single herbal medicines for developing standards. Thus, it is essential to develop the international standard for *Zanthoxylum nitidum* root to ensure the consistency in the quality of *Zanthoxylum nitidum* root, which is for the safe use of this herb and also promote the international trade.

In this document, the identification of commonly adulterated species of *Zanthoxylum nitidum* root is also introduced.

In addition, as the requirement and implementation may differ in different countries, the users are invited to modify the values given in [5.8](#) and [5.11](#) according to their national standards. Examples of national values are given in [Annex C](#).