BS ISO 24381:2023

BSI Standards Publication

Bee propolis — Specifications

National foreword

This British Standard is the UK implementation of ISO 24381:2023.

The UK participation in its preparation was entrusted to Technical Committee AW/34/19, Bee Products.

A list of organizations represented on this committee can be obtained on request to its committee manager.

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

Published by BSI Standards Limited 2023

ISBN 978 0 539 12668 6

ICS 65.140

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 November 2023.

Amendments/corrigenda issued since publication

Date	Text affected

BS ISO 24381:2023

INTERNATIONAL STANDARD

ISO 24381

First edition
2023-11-23

Bee propolis — Specifications

Propolis d'abeille — Spécifications

Reference number
ISO 24381:2023(E)

COPYRIGHT PROTECTED DOCUMENT

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

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 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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 34, *Food products*, Subcommittee SC 19, *Bee products*.

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

Propolis is a resinous substance produced by worker bees combining plant resins and/or fragments of newly formed buds with their salivary and wax gland secretions.

The chemical composition of propolis is quite complex. Hundreds of natural compounds such as flavonoids and phenolic acids have been identified in propolis. Different geographical and plant sources, bee species, production methods, etc., have a significant influence on the chemical composition of propolis.

For the purposes of this document, propolis is divided into *Populus, Baccharis* and *Dalbergia* types (the primary sources) and opens the opportunity in the future to cover other types, such as *Araucaria* spp., *Betula* spp., *Castanea* spp., *Clusia* spp., *Cupressus* spp., *Eucalyptus* spp., *Macaranga* spp., *Symphonia* spp., and the mixed plant source propolis (this list is not exhaustive). Only propolis produced by *Apis mellifera* bees is covered in this document.

Scientific literature predominantly relates to three main propolis types (brown, green and red) of which brown (*Populus*) and green (*Baccharis*) propolis are the main types traded internationally. This document considers the complex chemical composition of propolis, and the influences that geographical and plant species variation, and honey bee sub-species have on the proximate, flavonoid and phenolic composition of propolis. Propolis is rich in polyphenols, in particular flavonoids, phenolic acids and derivatives, which can be involved in the biological activities. The decisions made about the types, methodologies and requirements included in this document were based on the scientific literature available at the time.

This document sets out the terms, definitions, classification, quality requirements, authenticity requirements, test method procedures, transportation, storage conditions and packing marks. It aims to provide a document for the classification and quality control for the international trade of raw propolis.

INTERNATIONAL STANDARD **ISO 24381:2023**

Bee propolis — Specifications

1 Scope

This document specifies the quality requirements, analytical methods, and packaging, marking, labelling, storage and transportation conditions for bee propolis.

This document is applicable to propolis collected from beehives of *Apis mellifera* colonies, i.e. raw propolis.

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 22005, *Traceability in the feed and food chain — General principles and basic requirements for system design and implementation*

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
antioxidant capacity
ability of a substance that retards deterioration of oxidation

3.2
ash content
incombustible component remaining after a sample of *raw propolis* (3.17) is completely burnt

3.3
authenticity requirement
requirement that the addition of resins, extracts or any compounds, and/or bioactive substances in raw propolis is not allowed

3.4
balsamic
relating to or containing balsam

3.5
beeswax
honey bee secretions including mixtures of substituted long-chain aliphatic hydrocarbons, containing alkanes, alkyl esters, fatty acids, primary and secondary alcohols, diols, ketones and aldehydes