INTERNATIONAL STANDARD

ISO 22258

First edition
2020-07

Traditional Chinese medicine — Determination of pesticide residues in natural products by gas chromatography

Médecine traditionnelle chinoise — Détermination des résidus de pesticides dans les produits naturels par chromatographie en phase gazeuse

Reference number
ISO 22258:2020(E)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

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 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 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

A pesticide is any substance or mixture of substances intended to prevent, destroy or control any pest, unwanted species of plants or animals causing harm during, or otherwise interfering with, the production, processing, storage, transport or marketing of uncontaminated products. At present, there is no uniformly accepted international standard which defines maximum limits for pesticides in natural products used in traditional Chinese medicine (TCM), resulting in disputes about what levels should be considered acceptable.

This document was developed in response to worldwide demand for harmonization of the determination of pesticide residues. This document is applicable to natural products used in TCM.

For reference, the method of determination of pesticide residues by gas chromatography (GC) is provided in Annex A, the maximum limits of pesticide residues in natural products used in TCM are provided in Annex B and the recommended limits of pesticide residues in dried fruit and vegetables, which is similar to TCM materials or herbal medicine from the World Health Organization (WHO) and Food and Drug Administration/Environmental Protection Agency (FDA/EPA), are given in Annex C.

Traditional Chinese medicine — Determination of pesticide residues in natural products by gas chromatography

1 Scope

This document specifies the method of determination of pesticide residues in natural products used in traditional Chinese medicine (TCM) by gas chromatography (GC), including Chinese materia medica (whole medicinal materials) and decoction pieces derived from plants.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
pesticide
substance or mixture of substances intended for preventing, destroying, repelling or reducing any pest or weeds

[SOURCE: ISO 27065:2017, 3.9, modified — Note 1 to entry removed.]

3.2
pesticide residue
pesticide, pesticide derivative or pesticide adjuvant that remains in or on a natural product

Note 1 to entry: Pesticide residues are expressed in mg/kg.

3.3
acceptable daily intake
ADI
estimate of the amount of a pesticide in natural products that can be safely consumed daily over a lifetime without adverse health effects

Note 1 to entry: ADI is expressed in milligrams of the pesticide, as it appears in the natural products, per kilograms of body mass per day (mg/kg/day).

4 Sampling

To reduce the effect of sampling in the determination of pesticide residues in natural products used in TCM, ensure that the composition of the sample used is representative of the batch of natural products used in TCM being examined. The sampling procedures may be used if they can be demonstrated to produce representative batch samples.