

Leather - Chemical tests - Determination of pesticide residues content (ISO 22517:2019)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 22517:2021 sisaldab Euroopa standardi EN ISO 22517:2021 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 22517:2021 consists of the English text of the European standard EN ISO 22517:2021.
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English Version

## Leather - Chemical tests - Determination of pesticide residues content (ISO 22517:2019)

Cuir - Essais chimiques - Détermination de la teneur en résidus de pesticides (ISO 22517:2019)

Leder - Chemische Prüfungen - Bestimmung des Pestizidrückstandsgehalts (ISO 22517:2019)

This European Standard was approved by CEN on 9 August 2021.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

The text of ISO 22517:2019 has been prepared by Technical Committee ISO/IULTCS "International Union of Leather Technologists and Chemists Societies" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 22517:2021 by Technical Committee CEN/TC 289 "Leather" the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2022, and conflicting national standards shall be withdrawn at the latest by February 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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## Endorsement notice

The text of ISO 22517:2019 has been approved by CEN as EN ISO 22517:2021 without any modification.

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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](http://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](http://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](http://www.iso.org/iso/foreword.html).

This document was prepared by the Chemical Tests Commission of the International Union of Leather Technologists and Chemists Societies (IUC Commission, IULTCS) in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 289, *Leather*, the secretariat of which is held by UNI, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

IULTCS, originally formed in 1897, is a world-wide organization of professional leather societies to further the advancement of leather science and technology. IULTCS has three Commissions, which are responsible for establishing international methods for the sampling and testing of leather. ISO recognizes IULTCS as an international standardizing body for the preparation of test methods for leather.

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](http://www.iso.org/members.html).

# Leather — Chemical tests — Determination of pesticide residues content

## 1 Scope

This document specifies a quantitative test method to determine 24 kinds of pesticide residues in leather by gas chromatography-mass spectrometry (GC-MS).

This document is applicable to all types of leather that could release pesticides.

## 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 2418, *Leather — Chemical, physical and mechanical and fastness tests — Sampling location*

ISO 4044, *Leather — Chemical tests — Preparation of chemical test samples*

## 3 Terms and definitions

No terms and definitions are listed in this document.

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/>

## 4 Principle

The leather sample is ultrasonically extracted with a mixed solution of *n*-hexane and ethyl acetate (1 + 1, volume). The extraction is detected and confirmed by GC-MS, and quantified using an external standard method.

## 5 Safety precautions

**5.1** The compounds of pesticides are classified as high toxicity substances. Some are persistent organic pollutants (POPs) and suspected to be human carcinogens.

Any handling and disposal of these substances shall be in strict accordance with the applicable health and safety requirements.

**5.2** It is the user's responsibility to use safe and proper techniques when handling materials in this test method. Consult manufacturers for specific details, such as safety data sheets and other recommendations.

**5.3** Good laboratory practice should be followed. Wear safety glasses in all laboratory areas, as well as a dust respirator and single-use gloves while handling those compounds and leather samples.