ICS 61.060 SLOVENSKÁ TECHNICKÁ NORMA Júl 2025

STN	**Obuv Kritické látky potenciálne prítomné v obuvi a častiach obuvi Stanovenie organociničitých zlúčenín v materiáloch obuvi (ISO 16179: 2025)**	**STN EN ISO 16179** 79 5698

Footwear - Critical substances potentially present in footwear and footwear components - Determination of organotin compounds in footwear materials (ISO 16179:2025)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/25

Obsahuje: EN ISO 16179:2025, ISO 16179:2025

Oznámením tejto normy sa ruší
STN P CEN ISO/TS 16179 (79 5698) z januára 2013

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 16179

March 2025

ICS 61.060 Supersedes CEN ISO/TS 16179:2012

English Version

Footwear - Critical substances potentially present in footwear and footwear components - Determination of organotin compounds in footwear materials (ISO 16179:2025)

Chaussures - Substances critiques potentiellement présentes dans les chaussures et les composants de chaussures - Détermination des composés organostanniques dans les matériaux de chaussures (ISO 16179:2025)

Schuhe - Möglicherweise in Schuhen und Schuhbestandteilen vorhandene kritische Substanzen - Bestimmung zinnorganischer Verbindungen in Schuhwerkstoffen (ISO 16179:2025)

This European Standard was approved by CEN on 20 March 2025.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN ISO 16179:2025) has been prepared by Technical Committee ISO/TC 216 "Footwear" in collaboration with Technical Committee CEN/TC 309 “Footwear” the secretariat of which is held by UNE.

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of an identical text or by endorsement, at the latest by September 2025, and conflicting national standards shall be withdrawn at the latest by September 2025.

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.

This document supersedes CEN ISO/TS 16179:2012.

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

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Endorsement notice

The text of ISO 16179:2025 has been approved by CEN as EN ISO 16179:2025 without any modification.

International Standard

ISO 16179

Footwear — Critical substances potentially present in footwear and footwear components — Determination of organotin compounds in footwear materials

Chaussures — Substances critiques potentiellement présentes dans les chaussures et les composants de chaussures — Détermination des composés organostanniques dans les matériaux de chaussures

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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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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 216, *Footwear*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 309, *Footwear*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO/TS 16179:2012), which has been technically revised.

The changes are as follows:

— the technical specification becomes an ISO standard;

— GC-MS/MS technique added in 8.9.3 and in Clause B.2;

— new extraction solvent in Clause 4;

— new Table 1 (certain substances added) in Clause 4;

— change in the safety instructions at the preparation of the sodium tetraethylborate solution in Clause 8;

— sample preparation reference to ISO 21061 in Clause 7;

— new Table 2 (certain substances added) in 8.3.1;

— deletion of the need for duplicate determinations in Clause 7;

— new Annex B for mass spectroscopy;

— deletion of the reference to ISO 22744-1 in the Bibliography.

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

Certain organotin compounds have been identified as carcinogenic. Thus, several countries have restricted them in articles such as footwear, e.g. in the European Union by commission regulation (EU) 276/2010[1] amending regulation (EC) No 1907/2006[2].

Further organotin compounds are restricted by footwear brands in their restricted substances lists (RSL).

International Standard **ISO 16179:2025(en)**

Footwear — Critical substances potentially present in footwear and footwear components — Determination of organotin compounds in footwear materials

1 Scope

This document specifies a test method for the qualification and quantification of organotin compounds by applying gas chromatography coupled with mass spectrometry. This test method is applicable to all types of footwear materials except metal hardware (see ISO/TR 16178).

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 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 4787, *Laboratory glass and plastic ware — Volumetric instruments — Methods for testing of capacity and for use*

ISO 21061, *Footwear — Chemical tests — General principles on the preparation of samples*