

#### Obuv Kritické látky potenciálne prítomné v obuvi a častiach obuvi Stanovenie určitých organických rozpúšťadiel (ISO 20686: 2025)

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Footwear - Critical substances potentially present in footwear and footwear components - Determination of certain organic solvents (ISO 20686:2025)

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

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#### **English Version**

## Footwear - Critical substances potentially present in footwear and footwear components - Determination of certain organic solvents (ISO 20686:2025)

Chaussures - Substances critiques potentiellement présentes dans les chaussures et les composants de chaussures - Dosage de certains solvants organiques (ISO 20686:2025) Schuhe - Kritische Stoffe, die in Schuhen und Schuhbestandteilen enthalten sein können -Bestimmung bestimmter organischer Lösemittel (ISO 20686:2025)

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#### **European foreword**

This document (EN ISO 20686:2025) 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of an identical text or by endorsement, at the latest by December 2025, and conflicting national standards shall be withdrawn at the latest by December 2025.

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#### **Endorsement notice**

The text of ISO 20686:2025 has been approved by CEN as EN ISO 20686:2025 without any modification.



### International Standard

ISO 20686

Footwear — Critical substances potentially present in footwear and footwear components — Determination of certain organic solvents

Chaussures — Substances critiques potentiellement présentes dans les chaussures et les composants de chaussures — Dosage de certains solvants organiques First edition 2025-05



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#### Foreword

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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).

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#### Introduction

Industrial organic solvents are often used as ingredients in adhesive, treating agents and coating agents for footwear.

Some organic solvents are toxic. Harmful solvents left in footwear materials can penetrate into the human body through skin contact during wearing and by inhalation after being released from the footwear, harming the health of consumers. Both glycol ethers and amide solvents will form highly toxic compounds after metabolism in the body, which cause permanent damage to the blood and nervous system. Long-term exposure to high concentrations of these compounds can cause cancer. In addition, ethylene glycol ether solvents can cause permanent damage to the female reproductive system.

Due to this potential effect, the listed organic solvents in Annex A are based on those which have been restricted in some regulations (e.g. by the EU regulation No  $1907/2006^{[1]}$  in the European Union, and by the U.S. Environmental Protection Agency). ISO/TR 16178 describes which materials are concerned by this determination.

# Footwear — Critical substances potentially present in footwear and footwear components — Determination of certain organic solvents

WARNING — The use of this document can involve hazardous materials, operations and equipment. This document does not purport to address all the safety problems associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and determine the applicability of any other restrictions prior to use.

#### 1 Scope

This document specifies a method to quantify residues of certain organic solvents (see <u>Annex A</u>) in footwear materials with gas chromatography-mass spectrometry (GC-MS).

This document is applicable to footwear materials where there is a risk for the presence of certain solvent residues (e.g. solvent present in glues, leather finishing and coated textiles, plastics, rubber).

#### 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 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

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