



SLOVENSKI STANDARD
SIST EN ISO 16186:2021

01-september-2021

Nadomešča:

SIST-TS CEN ISO/TS 16186:2012

Obutev - Kritične snovi, ki so lahko v obutvi in delih obutve - Ugotavljanje dimetil fumarata (DMFU) (ISO 16186:2021)

Footwear - Critical substances potentially present in footwear and footwear components
- Determination of dimethyl fumarat (DMFU) (ISO 16186:2021)

Schuhe - Möglicherweise in Schuhen und Schuhbestandteilen vorhandene kritische Substanzen - Bestimmung von Dimethylfumarat (DMFU) in Schuhwerkstoffen (ISO/FDIS 16186:2021)

Chaussures - Substances critiques potentiellement présentes dans les chaussures et les composants de chaussures - Détermination du diméthylformamide (DMF) (ISO 16186:2021)

Ta slovenski standard je istoveten z: EN ISO 16186:2021

ICS:

61.060

Obuvala

Footwear

SIST EN ISO 16186:2021

en,fr,de

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EUROPEAN STANDARD

EN ISO 16186

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2021

ICS 61.060

Supersedes CEN ISO/TS 16186:2012

English Version

Footwear - Critical substances potentially present in footwear and footwear components - Determination of dimethyl fumarat (DMFU) (ISO 16186:2021)

Chaussures - Substances critiques potentiellement présentes dans les chaussures et les composants de chaussures - Détermination du diméthylformamide (DMF) (ISO 16186:2021)

Schuhe - Möglicherweise in Schuhen und Schuhbestandteilen vorhandene kritische Substanzen - Bestimmung von Dimethylfumarat (DMFU) in Schuhwerkstoffen (ISO 16186:2021)

This European Standard was approved by CEN on 17 May 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN ISO 16186:2021) 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 2021, and conflicting national standards shall be withdrawn at the latest by December 2021.

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 16186:2012.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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INTERNATIONAL
STANDARD

ISO
16186

First edition
2021-05

**Footwear — Critical substances
potentially present in footwear
and footwear components —
Determination of dimethyl fumarate
(DMFU)**

*Chaussures — Substances critiques potentiellement présentes dans
les chaussures et les composants de chaussures — Détermination du
fumarate de diméthyle (DMFU)*

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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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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 first edition of ISO 16186 cancels and replaces ISO/TS 16186:2012, which has been technically revised.

The main changes compared to the previous edition are as follows:

- new [Clause 3](#), [6.6](#), [6.8](#), [6.9](#);
- gas chromatograph with tandem quadrupole mass spectrometer (GC-MS/MS);
- in [Clause 7](#), desiccant treated as a note;
- in [8.2.2](#), new clean up procedure;
- new [Annexes A](#), [B](#) and [C](#);
- Tabled [D.1](#) aligned with [Table D.2](#);
- bibliography added.

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

Dimethyl fumarate (DMFU) has been found to be a sensitizer at very low concentrations, producing extensive, pronounced eczema, which is difficult to treat.

There are regulations that limit the use of DMFU. For example in the EU, products, or any parts thereof, containing DMFU in concentrations greater than 0,1 mg/kg are not authorized on the market^[3].

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