

Textiles and textile products - Determination of dimethylfumarate (DMFu), method using gas chromatography

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Textiles and textile products - Determination of
dimethylfumarate (DMFu), method using gas
chromatography

Textiles et produits textiles - Détermination du
diméthylfumarate (DMFu), méthode par
chromatographie en phase gazeuse

Textilien und textile Erzeugnisse - Bestimmung von
Dimethylfumarat (DMFu), Verfahren mittels
Gaschromatographie

This European Standard was approved by CEN on 26 May 2019.

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European foreword

This document (EN 17130:2019) has been prepared by Technical Committee CEN/TC 248 “Textiles and textile products”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by January 2020, and conflicting national standards shall be withdrawn at the latest by January 2020.

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 is adapted from CEN ISO/TS 16186 prepared by Technical Committee CEN/TC 309, “Footwear”, in collaboration with ISO Technical Committee TC 216, “Footwear”, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement). The adaptation is based on the extension of the scope to textile products.

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Introduction

In Europe according to Regulation (EC) No 1907/2006 (REACH), Annex XVII, Entry 61, Dimethylfumarate is not to be used in articles, or any parts thereof, in concentrations greater than 0,1 mg/kg. Articles, or any parts thereof, containing DMFu in concentrations greater than 0,1 mg/kg are not to be placed on the market.

WARNING — The use of this document involves hazardous materials. It does not purport to address all of the safety or environmental problems associated with its use. It is the responsibility of users of this document to take appropriate measures to ensure the safety and health of personnel and the environment prior to application of the document, and fulfil statutory and regulatory requirements for this purpose.

1 Scope

This document gives a test method for determining the amounts of dimethyl fumarate (DMFu) in textile materials and textile articles. It also includes desiccant sachets that can be present.

The test method is not applicable to metal parts. The materials to which it is applicable are given in CEN/TR 16741:2015, Tables 1 and 3.

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.

CEN/TR 16741:2015, *Textiles and textile products — Guidance on health and environmental issues related to chemical content of textile products intended for clothing, interior textiles and upholstery*

EN ISO 5089, *Textiles — Preparation of laboratory test samples and test specimens for chemical testing (ISO 5089)*

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:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Principle

The sample is cut into small pieces and extracted with acetone in a sealed vial at a defined temperature in an ultrasonic bath. Two different procedures are proposed to be used, depending on the material being tested:

- a) the first procedure, without purification (concentration of the extracted solution is optional), can be used for samples giving a simple chromatograph, for example, textiles;
- b) the second procedure, with purification and concentration of the extract, can be used for samples with a complex matrix effect, such as leather.

An aliquot of the extract is analysed using a gas chromatograph with mass selective detector.