

Textiles and textile products - Determination of biocide additives - Part 1: 2-Phenylphenol and triclosan, method using liquid chromatography

EESTI STANDARDI EESSÕNA

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EUROPEAN STANDARD

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English Version

Textiles and textile products - Determination of biocide additives - Part 1: 2-Phenylphenol and triclosan, method using liquid chromatography

Textiles et produits textiles - Détermination des additifs biocides - Partie 1 : 2-phénylphénol et triclosan, méthode par chromatographie en phase liquide

Textilien und textile Erzeugnisse - Bestimmung von Biozid-Zusatzstoffen - Teil 1: 2-Phenylphenol und Triclosan, Verfahren mittels Flüssigkeitschromatographie

This European Standard was approved by CEN on 15 April 2024.

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European foreword

This document (EN 17134-1:2024) 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of an identical text or by endorsement, at the latest by November 2024, and conflicting national standards shall be withdrawn at the latest by November 2024.

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 EN 17134:2019.

The main changes compared to the previous edition are listed below:

- the previous edition has been split into 3 parts (Part 3 has not been drafted yet);
- the title has been changed;
- Clause 4 has been rephrased;
- Clause 5 has been rephrased;
- 5.3.1, 5.3.2 and 5.5 have been technically changed and rephrased;
- 6.2 and 6.4 has been technically changed and rephrased;
- 8.1 has been technically changed and rephrased;
- the title of 9.1 has been added;
- in Formula (1), the factors 1 000 of the numerator and denominator have been deleted;
- 9.2 has been added;
- Clause 10 has been amended and rephrased;
- bibliographical reference [1] has been replaced.

This document is Part 1 of the EN 17134 series of standards under the title *Textiles and textile products — Determination of biocide additives*:

- *Part 1: 2-Phenylphenol and triclosan, method using liquid chromatography* (this document);
- *Part 2: Chlorophenol-based preservatives, method using gas chromatography*.

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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Introduction

The European Biocidal Product Regulation [1] concerns the placing on the market and use of biocidal products, which are used to protect humans, animals, materials or articles against harmful organisms, like pests or bacteria, by the action of the active substances contained in the biocidal product. The Biocidal Products Regulation (BPR) also sets rules for the use of articles treated with, or intentionally incorporating, one or more biocidal products.

Article 17 *“Making available on the market and use of biocidal products”* states *“that biocidal products are not to be made available on the market or used unless authorized in accordance with this regulation.”*

For placing on the market of Treated Articles, Article 58 defines that a *“Treated Article is not to be placed on the market unless all active substances contained in the biocidal products that it was treated with or incorporates are approved active substances and included in a Union list of approved active substances for the relevant product type and use or listed in Annex I (“treated article” means any substance, mixture or article which has been treated with, or intentionally incorporates, one or more biocidal products).”*

This test method was established to verify the compliance of textiles and textile products with the Biocidal Product Regulation for particular product-type 9 preservatives. (Product-type 9: Fibre, leather, rubber and polymerised materials preservatives: Products used for the preservation of fibrous or polymerised materials, such as leather, rubber or paper or textile products by the control of microbiological deterioration.)

This product-type includes biocidal products which antagonise the settlement of microorganisms on the surface of materials and therefore hamper or prevent the development of odour and/or offer other kinds of benefits.

WARNING — The use of this document involves hazardous chemicals. It does not purport to address all of the safety or environmental problems associated with their 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 specifies a test method for the determination of the content of the preservative agents (biocidal products) 2-phenylphenol (OPP) and triclosan in textile materials and articles composed of textile products, by liquid chromatography.

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.

EN ISO 3696, *Water for analytical laboratory use — Specification and test methods (ISO 3696)*

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

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 terminology databases for use in standardization at the following addresses:

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

4 Principle

The sample is cut into small pieces and extracted with acetonitrile using an ultrasonic bath. The filtered extract is analysed by liquid chromatography (LC) with diode array detector (DAD) and/or mass selective detector (MS).

5 Reagents

Unless otherwise specified, all reagents shall be of a recognized analytical grade.

5.1 2-Phenylphenol (OPP), CAS Registry Number^{®1} (CAS RN[®]): 90-43-7, highest available defined purity standard or certified stock solution.

5.2 Triclosan, CAS RN[®]: 3380-34-5, highest available defined purity standard or certified stock solution.

¹ CAS Registry Number[®] (CAS RN[®]) is a trademark of the American Chemical Society (ACS). This information is given for the convenience of users of this document and does not constitute an endorsement by CEN of the product named. Equivalent products may be used if they can be shown to lead to the same results.