Pulp, paper and board - Determination of pentachlorophenol in an aqueous extract (ISO 15320:2011)

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 15320:2011 sisaldab Euroopa standardi EN ISO 15320:2011 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 15320:2011 consists of the English text of the European standard EN ISO 15320:2011.
Standard on kinnitatud Eesti Standardikeskuse 31.08.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.08.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 15.08.2011.	Date of Availability of the European standard text 15.08.2011.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 85.040, 85.060

Inglisekeelsed võtmesõnad: boar, chemical analysis and testin, chemical analysis and testing, determination, edible paper, food packages, food-container c, gas chromatography, materials in contact with food, paper, paper packings, pentachlorophenol, pulp, sampling, sampling methods, testing,

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 15320

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ICS 85.040; 85.060

Supersedes EN ISO 15320:2003

English Version

Pulp, paper and board - Determination of pentachlorophenol in an aqueous extract (ISO 15320:2011)

Pâtes, papiers et cartons - Dosage du pentachlorophénol dans un extrait aqueux (ISO 15320:2011)

Zellstoff, Papier und Pappe - Bestimmung von Pentachlorphenol in einem wässrigen Extrakt (ISO 15320:2011)

This European Standard was approved by CEN on 14 August 2011.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN ISO 15320:2011: E

Foreword

This document (EN ISO 15320:2011) has been prepared by Technical Committee ISO/TC 6 "Paper, board and pulps" in collaboration with Technical Committee CEN/TC 172 “Pulp, paper and board” the secretariat of which is held by DIN.

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 February 2012, and conflicting national standards shall be withdrawn at the latest by February 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 15320:2011 has been approved by CEN as a EN ISO 15320:2011 without any modification.

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WARNING — The use of this International Standard may involve hazardous materials, e.g. methanol and pentachlorophenol, which are toxic substances, as well as acetic anhydride, which is corrosive. This International Standard does not address all the safety and environmental problems associated with its use. It is the responsibility of the user of this International Standard to establish appropriate safety, health and environmental practices and determine the applicability of safety regulations prior to use.

1 Scope

This International Standard specifies a test method for the determination of pentachlorophenol (PCP) in an aqueous extract of pulp, paper and board. Although it was developed for paper and board intended to come into contact with foodstuffs, it is applicable to all kinds of pulp, paper and board.

The working range for acetylation is 0,05 mg/kg to 0,5 mg/kg.

NOTE The upper limit of the working range could be increased if the aqueous extract is diluted.

2 Normative references

The following referenced documents are indispensable for the application 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 186, *Paper and board — Sampling to determine average quality*

ISO 536, *Paper and board — Determination of grammage*

ISO 638, *Paper, board and pulps — Determination of dry matter content — Oven-drying method*

ISO 7213, *Pulps — Sampling for testing*

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

3 Principle

A specimen of the material to be tested is extracted with either cold or hot water. The pentachlorophenol extract is concentrated by adsorption onto a phenyl silica column using solid-phase extraction. The pentachlorophenol is then eluted from the phenyl silica column with *n*-hexane and an acetylated derivative formed with acetic anhydride. The amount of pentachlorophenol present is then determined using gas chromatography employing an electron-capture detector (ECD) or mass spectrometer (MS) detector. The result is expressed as milligrams per kilogram of material.