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NSAI Standards

Irish Standard
I.S. EN 16453:2014

Pulp, paper and paperboard - Determination of phthalates in extracts from paper and paperboard

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NSAI	T +353 1 807 3800	Sales:
1 Swift Square,	F +353 1 807 3838	T +353 1 857 6730
Northwood, Santry	E standards@nsai.ie	F +353 1 857 6729
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 16453

January 2014

ICS 67.250; 85.060

English Version

Pulp, paper and paperboard - Determination of phthalates in extracts from paper and paperboard

Pâtes, papier et carton - Dosage des phtalates dans des extraits de papier et carton

Zellstoff, Papier und Karton - Bestimmung von Phthalaten in Papier- und Kartonextrakten

This European Standard was approved by CEN on 9 November 2013.

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Foreword

This document (EN 16453:2014) has been prepared by 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of an identical text or by endorsement, at the latest by July 2014, and conflicting national standards shall be withdrawn at the latest by July 2014.

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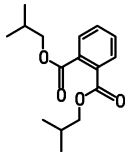
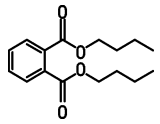
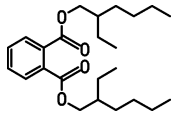
1 Scope

This European Standard specifies an analytical test method for the determination of phthalates in water, solvent and modified polyphenylene oxide (MPPO) extracts of paper and board materials and articles intended for food contact using gas chromatography coupled to mass spectrometry (GC-MS).

This method is applicable to the determination of phthalates in concentration ranging from 0,025 mg/l to 0,5 mg/l for water and solvent extracts and 0,002 mg/dm^2 to 0,040 mg/dm^2 for MPPO migration depending on the individual substance, the specified volume used for analysis and the value of the blank.

Table 1 — Phthlates determined by this method

Name	Abbreviation	Formula	CAS N°	Structure
Diisobutyl-phthalate	DIBP	$C_{16}H_{22}O_4$	84–69–5	
Dibutyl-phthalate	DBP	$C_{16}H_{22}O_4$	84–74–2	
Di-(-ethylhexyl)-phthalate	DEHP	$C_{24}H_{38}O_4$	117–81–7	

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 645, *Paper and board intended to come into contact with foodstuffs - Preparation of a cold water extract*

EN 647, *Paper and board intended to come into contact with foodstuffs - Preparation of a hot water extract*

EN 14338, *Paper and board intended to come into contact with foodstuffs - Conditions for determination of migration from paper and board using modified polyphenylene oxide (MPPO) as a simulant*

EN 15519, *Paper and board intended to come into contact with foodstuffs - Preparation of an organic solvent extract*

EN 27213, *Pulps - Sampling for testing (ISO 7213)*

EN ISO 186, *Paper and board - Sampling to determine average quality (ISO 186)*

EN ISO 536, *Paper and board - Determination of grammage (ISO 536)*

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

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