

Paper and board — Paper and board intended to come into contact with foodstuffs — Determination of mercury in an aqueous extract

The European Standard EN 12497:2005 has the status of a
British Standard

ICS 67.250; 85.060

Confirmed July 2010

National foreword

This British Standard is the official English language version of EN 12497:2005. It supersedes DD ENV 12497:1998 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee CW/47, Materials and articles in contact with foodstuffs, to Subcommittee CW/47/3, Paper and board in contact with foodstuffs, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 8, an inside back cover and a back cover.

The BSI copyright notice displayed in this document indicates when the document was last issued.

Amendments issued since publication

Amd. No.	Date	Comments

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 12 December 2005

© BSI 12 December 2005

English Version

**Paper and board - Paper and board intended to come into
contact with foodstuffs - Determination of mercury in an aqueous
extract**

Papier et carton - Papiers et cartons destinés à entrer en
contact avec les denrées alimentaires - Détermination du
mercure dans un extrait aqueux

Papier und Pappe - Papier und Pappe für den Kontakt mit
Lebensmitteln - Bestimmung von Quecksilber in einem
wässrigen Extrakt

This European Standard was approved by CEN on 27 June 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

page

Foreword	3
1 Scope	4
2 Normative references	4
3 Principle.....	4
4 Reagents.....	4
4.1 General	4
4.2 Nitric acid (HNO ₃), 65 % (<i>d</i> = 1,42).....	4
4.2.1 Nitric acid (4.2), diluted 1 : 1 (V/V) with water	4
4.2.2 Nitric acid (4.2), diluted to 1,5 % (V/V) with water	4
4.3 Potassium permanganate (KMnO ₄), 5 % aqueous solution (<i>m/V</i>)	4
4.4 Mercury, stock solution, 1000 mg/l.....	4
Sulphuric acid (H ₂ SO ₄), (<i>d</i> = 1,84)	5
4.6 Potassium dichromate (K ₂ Cr ₂ O ₇), 50 g/l in sulphuric acid solution	5
4.7 Hydroxylammonium chloride (HONH ₃ Cl), 20 g/l aqueous solution.....	5
4.8 Reducing solutions.....	5
4.8.1 Tin (II) chloride (SnCl ₂ · 2H ₂ O), 50 g/l in 10 % hydroxhloric acid (4.9.1)	5
4.8.2 Sodium tetrahydroborate (NaBH ₄), 0,2 g/l in 0,05 % sodium hydroxide solution (4.10)	5
4.9 Hydrochloric acid (HCl), 36 % (<i>d</i> = 1,19).....	5
4.9.1 Hydrochloric acid (4.9) (HCl), diluted 10 % (V/V)	5
4.10 Sodium hydroxide (NaOH), 0,05 % aqueous solution (<i>m/V</i>)	5
5 Apparatus	5
5.1 General	5
5.2 General laboratory equipment	5
5.3 Volumetric flasks, 100 ml	5
5.4 Analytical balance, accuracy 0,1 mg	5
5.5 Pipettes from 100 µl to 10 ml, glass or plastics, (high density polyethylene/polypropylene)	5
5.6 Atomic absorption spectrometer with an appropriate detection system and sensitivity.....	6
6 Preparation of sample	6
7 Procedure	6
7.1 General	6
7.2 Preparation of reference solution	6
7.3 Determination of mercury.....	6
7.3.1 General	6
7.3.2 Standard additions.....	7
7.4 Determination of blank value	7
8 Expression of results.....	7
9 Precision.....	8
10 Test report	8