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**Mikrobiologija v prehranski verigi - Horizontalna metoda za ugotavljanje prisotnosti in števila enterobakterij - 1. del: Ugotavljanje prisotnosti enterobakterij (ISO 21528-1:2017)**

Microbiology of the food chain - Horizontal method for the detection and enumeration of Enterobacteriaceae - Part 1: Detection of Enterobacteriaceae (ISO 21528-1:2017)

Mikrobiologie der Lebensmittelkette - Horizontales Verfahren für den Nachweis und die Zählung von Enterobacteriaceae Teil 1: Nachweis von Enterobacteriaceae (ISO 21528-1:2017)

Microbiologie de la chaîne alimentaire - Méthode horizontale par la recherche et le dénombrement des Enterobacteriaceae - Partie 1: Recherche des Enterobacteriaceae (ISO 21528-1:2017)

**Ta slovenski standard je istoveten z: EN ISO 21528-1:2017**

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**ICS:**

07.100.30 Mikrobiologija živil Food microbiology

**SIST EN ISO 21528-1:2017 en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 21528-1**

July 2017

ICS 07.100.30

English Version

**Microbiology of the food chain - Horizontal method for the detection and enumeration of Enterobacteriaceae - Part 1: Detection of Enterobacteriaceae (ISO 21528-1:2017)**

Microbiologie de la chaîne alimentaire - Méthode horizontale par la recherche et le dénombrement des Enterobacteriaceae - Partie 1: Recherche des Enterobacteriaceae (ISO 21528-1:2017)

Mikrobiologie der Lebensmittelkette - Horizontales Verfahren für den Nachweis und die Zählung von Enterobacteriaceae Teil 1: Nachweis von Enterobacteriaceae (ISO 21528-1:2017)

This European Standard was approved by CEN on 27 April 2017.

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

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## European foreword

This document (EN ISO 21528-1:2017) has been prepared by Technical Committee ISO/TC 34 “Food products” in collaboration with Technical Committee CEN/TC 275 “Food analysis - Horizontal methods” 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 January 2018, and conflicting national standards shall be withdrawn at the latest by January 2018.

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.

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According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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INTERNATIONAL  
STANDARD

ISO  
21528-1

Second edition  
2017-06

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**Microbiology of the food chain —  
Horizontal method for the detection  
and enumeration of  
*Enterobacteriaceae* —**

Part 1:

**Detection of *Enterobacteriaceae***

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*Microbiologie de la chaîne alimentaire — Méthode horizontale par  
la recherche et le dénombrement des Enterobacteriaceae —*

*Partie 1: Recherche des Enterobacteriaceae*

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Reference number  
ISO 21528-1:2017(E)

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# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Principle</b> .....	<b>2</b>
4.1 Enrichment in non-selective medium.....	2
4.2 Isolation and selection for confirmation.....	2
4.3 Confirmation.....	2
<b>5 Diluent, culture media and reagent</b> .....	<b>2</b>
<b>6 Equipment and consumables</b> .....	<b>2</b>
<b>7 Sampling</b> .....	<b>3</b>
<b>8 Preparation of test sample</b> .....	<b>3</b>
<b>9 Procedure</b> .....	<b>3</b>
9.1 General.....	3
9.2 Test portion and initial suspension.....	4
9.3 Enrichment.....	4
9.4 Isolation and selection for confirmation.....	4
9.4.1 Isolation.....	4
9.4.2 Selection of colonies for confirmation.....	4
9.5 Subculturing selected colonies.....	4
9.6 Biochemical confirmation tests.....	4
9.6.1 Oxidase reaction.....	4
9.6.2 Fermentation test.....	5
<b>10 Expression of results</b> .....	<b>5</b>
<b>11 Precision</b> .....	<b>5</b>
11.1 Interlaboratory study.....	5
11.2 Sensitivity.....	5
11.3 Specificity.....	5
<b>12 Test report</b> .....	<b>5</b>
<b>13 Quality assurance</b> .....	<b>6</b>
<b>Annex A (informative) Enumeration by MPN technique</b> .....	<b>7</b>
<b>Annex B (normative) Culture media and reagents</b> .....	<b>10</b>
<b>Annex C (informative) Method validation studies and performance characteristics</b> .....	<b>15</b>
<b>Bibliography</b> .....	<b>17</b>

## ISO 21528-1:2017(E)

### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html)

This document was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 275, *Food analysis — Horizontal methods*, in collaboration with ISO Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 9, *Microbiology*, in accordance with the agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 21528-1:2004), which has been technically revised with the following main changes:

- the MPN method has become an informative [Annex A](#);
- the pre-enrichment step in BPW followed by enrichment in EE broth has been changed to enrichment in BPW[Z] and confirmation now takes place in Glucose OF medium instead of using glucose agar;
- performance testing for the quality assurance of the culture media has been added;
- performance characteristics for this method have been added to [Annex C](#).

A list of all the parts in the ISO 21528 series can be found on the ISO website.

## Introduction

This document is intended to provide general guidance for the examination of products not dealt with by existing International Standards and to be taken into account by organizations preparing microbiological test methods for application to foods or animal feeding stuffs. Because of the large variety of products within this field of application, these guidelines may not be appropriate in every detail for certain products, and for some other products it may be necessary to use different methods. Nevertheless, it is hoped that in all cases, every attempt will be made to apply the guidelines provided as far as possible and that deviations from them will only be made if absolutely necessary for technical reasons.

The main changes, listed in the foreword, introduced in this document compared to ISO 21528-1:2004 are considered as major (see ISO 17468).

The harmonization of test methods cannot be immediate, and for certain groups of products, International Standards and/or national standards may already exist that do not comply with this horizontal method. It is hoped that when such standards are reviewed, they will be changed to comply with this document so that eventually the only remaining departures from this horizontal method will be those necessary for well-established technical reasons.

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