SLOVENSKI STANDARD
SIST EN ISO 7932:2005/A1:2020

01-junij-2020

Mikrobiologija živil in krme - Splošno navodilo za štetje domnevno prisotnih Bacillus cereus - Štetje kolonij pri 30 °C - Dopolnilo A1: Vključitev izbirnega preskusa (ISO 7932:2004/Amd 1:2020)

Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of presumptive Bacillus cereus - Colony-count technique at 30 degrees C - Amendment 1: Inclusion of optional tests (ISO 7932:2004/Amd 1:2020)

Mikrobiologie von Lebensmitteln und Futtermitteln - Horizontales Verfahren zur Zählung von präsumtivem Bacillus cereus - Koloniezählverfahren bei 30 °C - Änderung 1: Aufnahme optionaler Testmethoden (ISO 7932:2004/Amd 1:2020)

Microbiologie des aliments - Méthode horizontale pour le dénombrement de Bacillus cereus présomptifs - Technique par comptage des colonies à 30 degrés C - Amendement 1: Ajout de tests optionnels (ISO 7932:2004/Amd 1:2020)

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EN ISO 7932:2004/A1

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English Version

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This amendment A1 modifies the European Standard EN ISO 7932:2004; it was approved by CEN on 22 March 2020.

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European foreword

This document (EN ISO 7932:2004/A1:2020) has been prepared by Technical Committee ISO/TC 34 "Food products" in collaboration with Technical Committee CEN/TC 463 “Microbiology of the food chain” the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by October 2020, and conflicting national standards shall be withdrawn at the latest by October 2020.

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Endorsement notice

The text of ISO 7932:2004/Amd1:2020 has been approved by CEN as EN ISO 7932:2004/A1:2020 without any modification.

INTERNATIONAL STANDARD

ISO 7932

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AMENDMENT 1
2020-03

Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of presumptive Bacillus cereus — Colony-count technique at 30 degrees C

AMENDMENT 1: Inclusion of optional tests

Microbiologie des aliments — Méthode horizontale pour le dénombrement de Bacillus cereus présomptifs — Technique par comptage des colonies à 30 degrés C

AMENDEMENT 1: Ajout de tests optionnels

Reference number
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Foreword

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This document was prepared by ISO Technical Committee TC 34, *Food products*, Subcommittee SC 9, *Microbiology*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 463, *Microbiology of the food chain*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of presumptive Bacillus cereus — Colony-count technique at 30 degrees C

AMENDMENT 1: Inclusion of optional tests

In the Scope

Designate the existing NOTE as NOTE 1 and add the following new NOTE:

NOTE 2 The diversity within the *Bacillus cereus* group is large with 7 phylogenetic groups[21][22] and a growing number of species.

After 9.4

Add the following new subclause 9.5:

9.5 Optional tests

9.5.1 General

All the tests mentioned below are optional and intended for complementary investigations (i.e. epidemiological) on isolated *Bacillus cereus* group strains obtained in 9.4.1, following the procedures described in Annexes C to F.

In this amendment, the term "*B. cereus* group" is used instead of "presumptive *B. cereus*", as it is scientifically more precise, as explained in the EFSA scientific opinion published in 2016[28].

9.5.2 Detection of *cytK-1* or *cytK-2* gene variants of the gene encoding Cytotoxin K

Some strains within the *B. cereus* group bacteria carry one of the two variants found for the gene encoding Cytotoxin K, *cytK-1* and *cytK-2.* The *cytK-1* gene is specific to *Bacillus cytotoxicus*[17][22] and thus constitutes the possibility to rapidly identify *B. cytotoxicus*[20]. The procedure in Annex C describes a validated PCR method that targets both *cytK* gene variants and, if present, indicates which of the two forms is present. It also allows confirmation of isolates as *B. cytotoxicus*.

9.5.3 Detection of *Bacillus cereus* group strains able to produce cereulide

Some strains within the *B. cereus* group bacteria are able to produce a heat-stable dodecadepsipeptide, named cereulide. This cereulide, when produced in food, can cause an emetic food poisoning syndrome.

NOTE The method for cereulide quantification is described in ISO 18465[10].

A cereulide peptide synthetase (*ces*) gene is involved in the non-ribosomal synthesis of cereulide[16]. The procedure in Annex D describes a rapid and validated PCR method that targets the *ces* gene.

9.5.4 Motility test for *B. anthracis* screening

The motility test described in Annex E allows for screening for presumptive *B. anthracis* among isolated *B. cereus* group bacteria.

NOTE This test has nevertheless strong limitations as indicated in Annex E (see E.1 and Table E.1).

9.5.5 Microscopic examination of the parasporal crystal from *Bacillus thuringiensis*

B. thuringiensis, one of the *B. cereus* group species, can be distinguished from the other species of this group by the microscopic examination of the parasporal crystal formation.

The procedure for the examination of the parasporal crystal formation is described in Annex F.

After Annex B

Add the following as Annexes C, D, E and F.