

English Version

Microbiology of food and animal feeding stuffs - Guidelines on preparation and production of culture media - Part 1: General guidelines on quality assurance for the preparation of culture media in the laboratory (ISO/TS 11133-1:2009)

Microbiologie des aliments - Lignes directrices pour la préparation et la production des milieux de culture - Partie 1: Lignes directrices générales d'assurance qualité pour la préparation des milieux de culture en laboratoire (ISO/TS 11133-1:2009)

Mikrobiologie von Lebensmitteln und Futtermitteln - Anleitungen für die Zubereitung und Herstellung von Nährmedien - Teil 1: Allgemeine Anleitungen für die Qualitätssicherung bei der Zubereitung von Nährmedien im Laboratorium (ISO/TS 11133-1:2008)

This Technical Specification (CEN/TS) was approved by CEN on 23 June 2008 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

This document (CEN ISO/TS 11133-1:2009) has been prepared by Technical Committee CEN/TC 275 "Food analysis - Horizontal methods", the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 34 "Agricultural food products".

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.

This document supersedes ENV ISO 11133-1:2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
3.1 General.....	1
3.2 Culture media.....	2
3.3 Test microorganisms.....	5
4 Quality assurance of culture media	5
4.1 Documentation.....	5
4.2 Storage.....	6
4.3 Laboratory preparation of media.....	7
4.4 Preparation for use.....	9
4.5 Disposal of media.....	10
5 Preservation and maintenance of control strains	10
5.1 General.....	10
5.2 Control strains from commercial sources.....	10
5.3 Laboratory-prepared reference stocks.....	10
5.4 Stock cultures.....	10
5.5 Working cultures.....	11
6 Performance testing of finished culture media	11
6.1 General.....	11
6.2 Physical quality control.....	11
6.3 Microbiological quality control.....	11
Annex A (informative) Designation of the components of the culture media in standards on microbiological analysis of food and animal feeding stuffs	13
Annex B (informative) Preparation of reference stock and working culture	15
Annex C (informative) Quality assurance of culture media — Troubleshooting	17
Bibliography	18

Introduction

Culture media are used in all traditional culture techniques and also for many alternative techniques. In the microbiology laboratory, many tests and procedures depend upon culture media being consistent and providing reproducible results. Many formulations of dehydrated culture media are commercially available and many more, designed for specific growth purposes, are described in the literature. In laboratories carrying out microbiological examinations of foods and feedstuffs, the main objectives are to maintain, resuscitate, grow, detect and/or enumerate a wide variety of microorganisms. The requirements for media are specific to both the sample and the organisms to be detected. Culture media meeting established or minimal performance criteria are therefore a prerequisite for any reliable microbiological work. Sufficient testing should be carried out to demonstrate: i) the acceptability of each batch of medium; ii) that the medium is “fit for purpose”; and iii) that the medium can produce consistent results.

These three criteria are an essential part of internal quality control procedures and, with appropriate documentation, will permit effective monitoring of culture media and contribute to the production of both accurate and precise data.

Microbiology of food and animal feeding stuffs — Guidelines on preparation and production of culture media —

Part 1:

General guidelines on quality assurance for the preparation of culture media in the laboratory

1 Scope

This part of ISO/TS 11133 provides the general terminology related to quality assurance and specifies the minimum requirements for the preparation of culture media to be used for the microbiological analysis of products intended for human consumption or animal feeding.

It is also applicable to culture media to be used for the microbiological analysis of all kinds of water.

These requirements are applicable to four categories of culture media used in laboratories that prepare and/or use culture media for performing microbiological analyses:

- commercially manufactured ready-to-use media;
- media to be remelted, supplemented and distributed;
- media prepared from commercially available dehydrated formulations;
- media prepared from their individual components.

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 7218, *Microbiology of food and animal feeding stuffs — General requirements and guidance for microbiological examinations*

ISO 11133-2:2003, *Microbiology of food and animal feeding stuffs — Guidelines on preparation and production of culture media — Part 2: Practical guidelines on performance testing of culture media*