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English version

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 (ISO/TS 11133-2:2003)

Microbiologie des aliments - Guide pour la préparation et la production des milieux de culture - Partie 2: Guide général pour les essais de performance des milieux de culture (ISO/TS 11133-2:2003)

Mikrobiologie von Lebensmitteln und Futtermitteln - Anleitung für die Vorbereitung und Herstellung von Nährmedien - Teil 2: Praktische Anleitung zur Leistungsprüfung von Nährmedien (ISO/TS 11133-2:2003)

This Technical Specification (CEN ISO/TS) was approved by CEN on 8 December 2002 for provisional application.

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Contents		Page
Foreword.....		3
Introduction		3
1 Scope		3
2 Normative references		4
3 Terms and definitions		4
4 Criteria for routine quality control		4
5 Methods for use in performance testing of culture media		7
6 Documentation of test results		13
Annex A (informative) Example of card for recording test results of culture media prepared by the user laboratory		15
Annex B (normative) Recommended test microorganisms for commonly used culture media (giving information on the culture medium, culture conditions, test microorganisms, culture collection number of test organisms and the expected reactions)		16
Bibliography		26

Foreword

This document (CEN ISO/TS 11133-2:2003) 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 "Food products".

This document "Microbiology of food and animal feeding stuffs – Guidelines on preparation and production of culture media" consist of two parts:

- *Part 1: General guidelines on quality assurance for the preparation of culture media in the laboratory*
- *Part 2: Practical guidelines on performance testing of culture media*

Annex A is informative. Annex B is normative.

This document includes a Bibliography.

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

Introduction

It is essential to use culture media of proven quality to carry out microbiological analysis of food reliably. For all media described in standardized methods it is essential to define the minimum acceptance criteria required to ensure media reliability. It is recommended that in the determination of the performance characteristics of a culture medium tests are carried out that conform with this Technical Specification. This applies to:

- a) commercially prepared ready-to-use or dehydrated media;
- b) culture media prepared from basic constituents in the user's laboratory.

The establishment of widely accepted minimum performance criteria for media should lead to more consistent quality of commercially made products and thus reduce the extent of testing necessary in the user's laboratory.

Furthermore the minimum acceptance criteria measured by the methods defined in this Technical Specification can be used by all microbiological laboratories to evaluate the productive, selective and/or elective properties of a culture medium.

In the microbiological analysis of food and animal feeding stuffs the requirements of this Technical Specification have priority in the assessment of media quality.

1 Scope

This Technical Specification sets criteria and methods for the performance testing of culture media. This Technical Specification applies to:

- commercial bodies producing and/or distributing ready-to-use or semi-finished reconstituted or dehydrated media to microbiological laboratories;

- non-commercial bodies supplying media to third parties;
- microbiological laboratories preparing culture media for their own use and evaluating the performance of these media.

2 Normative references

This Technical Specification incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this Technical Specification only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

ENV ISO 11133-1:2000, *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/TR 11133-1:2000)*.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ENV ISO 11133-1:2000 apply.

4 Criteria for routine quality control

4.1 General quality criteria

4.1.1 Quality of culture media

The quality of culture media depends on the quality of the basic ingredients, correct formulation, quality of preparation procedures, elimination of contaminant microbial agents and appropriate packaging and storage conditions (see ENV ISO 11133-1).

The manufacturer or producer in the laboratory shall comply with the physico-chemical characteristics of the culture media as specified in the corresponding standard. Furthermore, quality assessment shall ensure that the culture medium conforms to stated recommendations, including:

- distributed quantity and/or thickness;
- appearance, colour and homogeneity;
- gel consistency;
- moisture content;
- pH value;
- buffering capacity;
- microbial contamination.

The individual components and any nutritive or selective supplements shall also undergo suitable quality assessment procedures.