BRITISH STANDARD

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In vitro diagnostic systems — Culture media for microbiology — Terms and definitions

The European Standard EN 1659 : 1996 has the status of a British Standard

ICS 01.040.07; 07.100.10

Committees responsible for this British Standard

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Association of Clinical Biochemists
Association of Clinical Pathologists
BLWA Ltd. (The Association of the Laboratory Supply Industry)
British Blood Transfusion Society
British In Vitro Diagnostics Association
British Society for Antimicrobial Chemotherapy
British Society for Haematology
Department of Health
Health and Safety Executive
Institute of Biomedical Science
National Biological Standards Board
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National foreword

This British Standard has been prepared by Technical Committee CH/69 and is the English language version of EN 1659 : 1996 *In vitro diagnostic systems — Culture media for microbiology — Terms and definitions*, published by the European Committee for Standardization (CEN).

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 4, an inside back cover and a back cover.

EUROPEAN STANDARD
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English version

In vitro diagnostic systems — Culture media for microbiology — Terms and definitions

Systèmes de diagnostic in vitro — Milieux de culture de microbiologie — Termes et définitions

In-vitro-Diagnostik/Diagnostika — Kulturmedien für die Mikrobiologie — Begriffe

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 140, ln vitro diagnostic systems, the secretariat of which is held by DIN.

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1 Scope

This European Standard provides terms for different classifications of culture media used in microbiology (bacteriology and mycology).

2 Definitions

2.1 culture medium

Formulation of substances, in liquid, semi-solid or in solid form, which contain natural and/or synthetic constituents intended to support the multiplication, or to preserve the viability, of micro-organisms.

NOTE. When used in connection with compound words, this term is often shortened into 'medium' (e.g. enrichment medium).

2.2 Culture media classified by composition

2.2.1 *chemically defined culture medium*

Culture medium consisting of chemically defined constituents (i.e. of known molecular structure and degree of purity) only.

2.2.2 *chemically incompletely defined culture medium*

Culture medium consisting entirely or partly of natural raw materials, the chemical compositions of which are incompletely defined.

2.3 Culture media classified by consistency

2.3.1 *liquid culture medium*

Culture medium consisting of an aqueous solution of one or more constituents (e.g. peptone water, nutrient broth).

NOTE 1. In some cases, solid particles are added to the liquid culture medium (e.g. Tarrozzi broth, Cooked Meat broth).

NOTE 2. Liquid media in tubes, flasks or bottles are commonly called 'broth'.

2.3.2 *solid culture medium and semi-solid culture medium*

Liquid culture medium containing solidifying materials (e.g. agar-agar, gelatine, etc.) in different concentrations.

NOTE. Due to the world-wide use of culture media solidified with agar-agar, the shortened term 'agar' is often used synonymously for solid culture media and therefore in connection with nouns, e.g. 'Endo Agar' or 'Sabouraud agar' etc. Solid culture media poured into Petri dishes are commonly called 'plates'. Solid culture media poured into tubes that are kept in slanted positions while solidifying the media are often called 'slants'.

2.4 Culture media classified by intent of use

2.4.1 *transport medium*

Culture medium designed to preserve and maintain the viability of micro-organisms for the time period between sample collection and laboratory processing of the sample.

NOTE. Transport media usually contain substances that do not permit multiplication of micro-organisms but ensure their preservation (e.g. Stuart's or Amies' transport medium).

2.4.2 *preservation medium*

Culture medium designed to preserve and maintain the viability of micro-organisms over an extended period, to protect them against the adverse influences which may occur during long-term storage and to allow recovery after this period.

2.4.3 *resuscitation medium*

Culture medium enabling stressed and damaged micro-organisms to repair and recover their capacity for normal growth without necessarily promoting their multiplication.

2.4.4 *enrichment medium*

Predominantly liquid culture medium which, due to its composition, provides particularly favourable conditions for multiplication of micro-organisms.

2.4.4.1 *selective enrichment medium*

Enrichment medium which supports the multiplication of specific micro-organisms while inhibiting other micro-organisms (e.g. selenite broth).

2.4.4.2 *non-selective enrichment medium*

Enrichment medium which is not devised to selectively inhibit micro-organisms (e.g. nutrient broth).

2.4.5 *isolation medium*

Solid or semi-solid culture medium which supports growth and/or the formation of colonies of micro-organisms.

2.4.5.1 *selective isolation medium*

Isolation medium which supports growth of specific micro-organisms, while inhibiting other micro-organisms (e.g. Leifson agar, MacConkey agar).

2.4.5.2 *non-selective isolation medium*

Isolation medium which is not devised to selectively inhibit micro-organisms (e.g. nutrient agar).

2.4.6 *differential medium*

Culture medium which permits the testing of one or more physiological/biochemical characteristics of the micro-organisms for their identification (e.g. Urea medium, Kligler agar).

NOTE. Differential media which can be used as isolation media are referred to as isolation/differential media (e.g. xylose lysine deoxycholate (XLD) agar).

2.4.7 *Identification medium*

Culture medium designed to produce a specific identification reaction which does not require any further confirmatory test.

NOTE. Identification media which can be used as isolation media are referred to as isolation/identification media.

2.4.8 *Media with multiple intents of use*

Certain culture media may be assigned to several categories, e.g. Blood agar is a resuscitation medium according to **2.4.3**, an isolation medium according to **2.4.5** and a differential medium according to **2.4.6** used for detection of haemolysis.

2.5 CuIture media classified according to the form of product

2.5.1 *dehydrated medium*

Culture medium in dry form which is not ready for immediate use (e.g. powders, granules, lyophilized products).

NOTE. Most often, rehydration will make a partially completed medium.

2.5.2 *partially completed medium*

Culture medium which still requires one or more additional working steps before its intended use (e.g. melting, pouring, portioning, supplementing).

NOTE. In manufacturing terms, these media are often called half-finished or semi-finished.

2.5.3 *ready-to-use medium*

Culture medium which is supplied in containers in ready-to-use form (e.g. Petri dishes or tubes or other carriers).

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W4 4AL