

DIN EN ISO 11133:2015-01 (E)

Microbiology of food, animal feed and water - Preparation, production, storage and performance testing of culture media (ISO 11133:2014, Corrected version 2014-11-01)

Contents		Page
Foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	7
3.1	General terms and definitions	7
3.2	Terminology of performance testing	7
3.3	Terminology of culture media	8
3.4	Terminology for test microorganisms	11
4	Quality assurance management	12
4.1	Documentation	12
4.2	Storage	13
4.3	Laboratory preparation of media	13
4.4	Storage and shelf-life of prepared media	13
4.5	Preparation for use	17
4.6	Incubation of solid media in Petri dishes	19
4.7	Disposal of media	19
5	Test organisms for performance testing	19
5.1	General	19
5.2	Selection of test organisms	19
5.3	Preservation and maintenance of test organisms	20
5.4	Microorganisms for performance testing	21
6	Quality control and performance testing of culture media	24
6.1	General requirements	24
6.2	Physical and chemical quality control	24
6.3	Microbiological quality control	24
6.4	General requirements for microbiological performance testing	25
6.5	Performance evaluation and interpretation of results	25
6.6	Confirmation media and reagents	27
7	Methods for performance testing of solid culture media	27
7.1	General	27
7.2	Methods for quantitative tests	27
7.3	Testing of culture media used for membrane filtration	29
7.4	Methods for qualitative tests	29
8	Methods for performance testing of liquid culture media	30
8.1	General	30
8.2	Quantitative tube method for performance testing of liquid enrichment media (dilution to extinction method)	30
8.3	Qualitative tube method for performance testing of selective liquid media	31
8.4	Qualitative single tube method (turbidity) for performance testing of liquid media	32
9	Methods for performance testing of diluents and transport media	33

9.1	General	33
9.2	Method for testing diluents	33
9.3	Method for testing transport media	34
10	Documentation of test results	35
10.1	Information provided by the manufacturer	35
10.2	Traceability	35
Annex A	(informative) Designation of the components of culture media in International Standards on microbiological analysis of food, animal feed and water.....	36
Annex B	(normative) Preparation of reference stock and working culture.....	38
Annex C	(normative) Flow charts of methods for performance testing.....	43
Annex D	(informative) Example of card for recording test results of culture media.....	47
Annex E	(normative) Test microorganisms and performance criteria for culture media commonly used in food microbiology.....	49
Annex F	(normative) Test microorganisms and performance criteria for culture media commonly used in water microbiology.....	71
Annex G	(normative) Use of control charts to monitor quantitative testing of solid culture media.....	83
Annex H	(informative) Quality assurance of culture media — Troubleshooting.....	90
Annex I	(informative) Quantitative testing of liquid media.....	92
Annex J	(normative) Definition of microbiological performance tests for standardized culture media.....	96
Bibliography	100