

ISO 18415:2017-06 (E)

Cosmetics - Microbiology - Detection of specified and non-specified microorganisms

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Principle	3
5	Diluents and culture media	3
5.1	General	3
5.2	Diluent for the microbial suspension (tryptone sodium chloride solution)	3
5.2.1	General	3
5.2.2	Composition	4
5.2.3	Preparation	4
5.3	Culture media	4
5.3.1	General	4
5.3.2	Enrichment broth	4
5.3.3	Non-selective agar medium	5
6	Apparatus and glassware	5
7	Strains of microorganism	6
8	Handling of cosmetic products and laboratory samples	6
9	Procedure	6
9.1	General recommendations	6
9.2	Preparation of the initial suspension in the enrichment broth	6
9.2.1	General	6
9.2.2	Water-miscible products	7
9.2.3	Water-immiscible products	7
9.2.4	Filterable products	7
9.3	Incubation of the initial suspension	7
9.4	Isolation of specified and non-specified microorganisms	7
9.5	Procedure for identification of the specified microorganism: <i>Pseudomonas aeruginosa</i>	7
9.5.1	Gram staining	7
9.5.2	Oxidase test	7
9.5.3	Identification test	8
9.6	Procedure for identification of the specified microorganism: <i>Escherichia coli</i>	8
9.6.1	Gram staining	8
9.6.2	Oxidase test	8
9.6.3	Identification test	8
9.7	Procedure for identification of the specified microorganism: <i>Staphylococcus aureus</i>	8
9.7.1	Gram staining	8
9.7.2	Catalase test	8
9.7.3	Identification test	8
9.8	Procedure for the identification of the specified microorganism: <i>Candida albicans</i>	9
9.8.1	Gram staining	9

9.8.2	Identification test	9
9.9	Procedure for the identification of non-specified microorganisms	9
9.9.1	Gram staining	9
9.9.2	Oxidase test	9
9.9.3	Catalase test	9
9.9.4	Identification test	9
10	Expression of the results	10
10.1	Detection of specified microorganisms	10
10.2	Detection of non-specified microorganisms	10
10.3	Absence of microorganisms	10
11	Neutralization of the antimicrobial properties of the product	10
11.1	General	10
11.2	Preparation of inoculum	10
11.3	Suitability of detection method by enrichment	10
11.3.1	Principle	10
11.3.2	Procedure	11
11.3.3	Interpretation of suitability test results	11
12	Test report	11
Annex A (informative) General scheme for identification of microorganisms		13
Annex B (informative) Other media		14
Annex C (informative) Neutralizers of antimicrobial activity of preservatives and rinsing liquids ¹⁷		
	Bibliography	19