

# DIN EN ISO 18415:2017-09 (E)

## Cosmetics - Microbiology - Detection of specified and non-specified microorganisms (ISO 18415:2017)

---

### Contents

	Page
European foreword.....	4
Foreword.....	5
Introduction.....	6
<b>1 Scope</b> .....	<b>7</b>
<b>2 Normative references</b> .....	<b>7</b>
<b>3 Terms and definitions</b> .....	<b>7</b>
<b>4 Principle</b> .....	<b>9</b>
<b>5 Diluents and culture media</b> .....	<b>9</b>
5.1 General.....	9
5.2 Diluent for the microbial suspension (tryptone sodium chloride solution).....	9
5.2.1 General.....	9
5.2.2 Composition.....	10
5.2.3 Preparation.....	10
5.3 Culture media.....	10
5.3.1 General.....	10
5.3.2 Enrichment broth.....	10
5.3.3 Non-selective agar medium.....	11
<b>6 Apparatus and glassware</b> .....	<b>11</b>
<b>7 Strains of microorganism</b> .....	<b>12</b>
<b>8 Handling of cosmetic products and laboratory samples</b> .....	<b>12</b>
<b>9 Procedure</b> .....	<b>12</b>
9.1 General recommendations.....	12
9.2 Preparation of the initial suspension in the enrichment broth.....	12
9.2.1 General.....	12
9.2.2 Water-miscible products.....	13
9.2.3 Water-immiscible products.....	13
9.2.4 Filterable products.....	13
9.3 Incubation of the initial suspension.....	13
9.4 Isolation of specified and non-specified microorganisms.....	13
9.5 Procedure for identification of the specified microorganism: <i>Pseudomonas aeruginosa</i> .....	13
9.5.1 Gram staining.....	13
9.5.2 Oxidase test.....	13
9.5.3 Identification test.....	14
9.6 Procedure for identification of the specified microorganism: <i>Escherichia coli</i> .....	14
9.6.1 Gram staining.....	14
9.6.2 Oxidase test.....	14
9.6.3 Identification test.....	14
9.7 Procedure for identification of the specified microorganism: <i>Staphylococcus aureus</i> .....	14
9.7.1 Gram staining.....	14
9.7.2 Catalase test.....	14
9.7.3 Identification test.....	14

9.8	Procedure for the identification of the specified microorganism: <i>Candida albicans</i> .....	15
9.8.1	Gram staining.....	15
9.8.2	Identification test.....	15
9.9	Procedure for the identification of non-specified microorganisms.....	15
9.9.1	Gram staining.....	15
9.9.2	Oxidase test.....	15
9.9.3	Catalase test.....	15
9.9.4	Identification test.....	15
<b>10</b>	<b>Expression of the results</b> .....	<b>16</b>
10.1	Detection of specified microorganisms.....	16
10.2	Detection of non-specified microorganisms.....	16
10.3	Absence of microorganisms.....	16
<b>11</b>	<b>Neutralization of the antimicrobial properties of the product</b> .....	<b>16</b>
11.1	General.....	16
11.2	Preparation of inoculum.....	16
11.3	Suitability of detection method by enrichment.....	16
11.3.1	Principle.....	16
11.3.2	Procedure.....	17
11.3.3	Interpretation of suitability test results.....	17
<b>12</b>	<b>Test report</b> .....	<b>17</b>
<b>Annex A (informative) General scheme for identification of microorganisms</b> .....		<b>19</b>
<b>Annex B (informative) Other media</b> .....		<b>20</b>
<b>Annex C (informative) Neutralizers of antimicrobial activity of preservatives and rinsing liquids</b> .....		<b>23</b>
<b>Bibliography</b> .....		<b>25</b>