

# DIN EN ISO 21322:2022-05 (E)

## Cosmetics - Microbiology - Testing of impregnated or coated wipes and masks (ISO 21322:2020)

---

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>8</b>
4.1 General information .....	8
4.2 Selection of the test sample .....	8
4.3 Selection of the method .....	9
4.4 Recovery of microorganisms from the test sample .....	9
4.5 Enumeration of aerobic mesophilic microorganisms .....	9
4.5.1 General .....	9
4.5.2 Plate count method overview .....	9
4.5.3 Membrane filtration method overview .....	9
4.6 Detection of specified microorganisms by enrichment method .....	10
<b>5 Diluents, neutralizers and culture media .....</b>	<b>10</b>
5.1 General .....	10
5.2 Diluents and neutralizers .....	10
5.3 Culture media .....	10
5.3.1 Media for enumeration and detection .....	10
5.3.2 Media for preparation of spores of <i>Bacillus subtilis</i> .....	10
<b>6 Apparatus and glassware .....</b>	<b>10</b>
<b>7 Strains of microorganisms .....</b>	<b>10</b>
<b>8 Handling of cosmetic products and laboratory samples .....</b>	<b>11</b>
<b>9 Procedure .....</b>	<b>11</b>
9.1 General recommendation .....	11
9.2 Selection and preparation of the test sample .....	11
9.2.1 Selection of the test sample .....	11
9.2.2 Preparation of the initial suspension .....	11
9.3 Recovery of microorganisms .....	12
9.3.1 General .....	12
9.3.2 Stomaching .....	12
9.3.3 Shaking/Stirring .....	12
9.4 Enumeration of aerobic mesophilic microorganisms .....	12
9.4.1 General .....	12
9.4.2 Pour plate method .....	12
9.4.3 Surface spread method .....	13
9.4.4 Membrane filtration method .....	13
9.4.5 Incubation .....	13
9.4.6 Counting of colonies .....	13
9.5 Detection of specified microorganisms by enrichment method .....	14
9.5.1 General .....	14
9.5.2 Test for specified microorganisms .....	14

<b>10</b>	<b>Expression of results</b> .....	<b>15</b>
10.1	Enumeration of aerobic mesophilic microorganisms .....	15
10.2	Detection of specified microorganisms .....	15
<b>11</b>	<b>Suitability test</b> .....	<b>15</b>
<b>12</b>	<b>Test report</b> .....	<b>15</b>
<b>Annex A</b>	<b>(normative) Guidance on methods for microbiological testing of impregnated or coated products — Wipes and masks</b> .....	<b>16</b>
<b>Annex B</b>	<b>(informative) Expression and interpretation of results</b> .....	<b>20</b>
<b>Annex C</b>	<b>(normative) Suitability test method</b> .....	<b>27</b>
<b>Bibliography</b>	.....	<b>32</b>