

**Cosmetics - Microbiology - Detection of *Pseudomonas aeruginosa***

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ICS 07.100.99, 71.100.70

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EUROPEAN STANDARD

EN ISO 22717

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2009

ICS 07.100.99; 71.100.70

English Version

## Cosmetics - Microbiology - Detection of *Pseudomonas aeruginosa* (ISO 22717:2006)

Cosmétiques - Microbiologie - Recherche de *Pseudomonas aeruginosa* (ISO 22717:2006)

Kosmetik - Mikrobiologie - Nachweis von *Pseudomonas aeruginosa* (ISO 22717:2006)

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## Foreword

The text of ISO 22717:2006 has been prepared by Technical Committee ISO/TC 217 "Cosmetics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 22717:2009.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

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The text of ISO 22717:2006 has been approved by CEN as a EN ISO 22717:2009 without any modification.

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## Introduction

Microbiological examinations of cosmetic products shall be carried out according to an appropriate microbiological risk analysis in order to ensure their quality and safety for consumers.

Microbiological risk analysis depends on several parameters such as:

- potential alteration of cosmetic products;
- pathogenicity of micro-organisms;
- site of application of the cosmetic product (hair, skin, eyes, mucous membranes, etc.);
- type of users (adults, children under 3 years).

For cosmetics and other topical products, the detection of skin pathogens such as *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Candida albicans* may be relevant. The detection of other kinds of micro-organism might be of interest since these micro-organisms (including indicators of faecal contamination e.g. *Escherichia coli*) suggest hygienic failure during the manufacturing process.

# Cosmetics — Microbiology — Detection of *Pseudomonas aeruginosa*

## 1 Scope

This International Standard gives general guidelines for the detection and identification of the specified micro-organism *Pseudomonas aeruginosa* in cosmetic products. Micro-organisms considered as specified in this International Standard might differ from country to country according to national practices or regulations.

In order to ensure product quality and safety for consumers, it is advisable to perform an appropriate microbiological risk analysis to determine the types of cosmetic product to which this International Standard is applicable. Products considered to present a low microbiological risk include those with low water activity, hydro-alcoholic products, extreme pH values, etc.

The method described in this International Standard is based on the detection of *Pseudomonas aeruginosa* in a non-selective liquid medium (enrichment broth), followed by isolation on a selective agar medium. Other methods may be appropriate, depending on the level of detection required.

**NOTE** For the detection of *Pseudomonas aeruginosa*, subcultures can be performed on non-selective culture media followed by suitable identification steps (e.g. using identification kits).

Because of the large variety of cosmetic products within this field of application, this method may not be appropriate in every detail for some products (e.g. certain water immiscible products). Other International Standards (ISO 18415<sup>[10]</sup>) may be appropriate. Other methods (e.g. automated) may be substituted for the tests presented here provided that their equivalence has been demonstrated or the method has been otherwise validated.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 21148:2005, *Cosmetics — Microbiology — General instructions for microbiological examination*

EN 12353, *Chemical disinfectants and antiseptics — Preservation of microbial strains used for the determination of bactericidal and fungicidal activity*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **product**

portion of an identified cosmetic product received in the laboratory for testing

### 3.2

#### **sample**

portion of the product (at least 1 g or 1 ml) that is used in the test to prepare the initial suspension