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Corrosion of metals and alloys — Corrosion test method for disinfectant — Spray test method

Corrosion des métaux et alliages — Méthode d'essai de corrosion pour les désinfectants — Méthode d'essai par pulvérisation

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 156, *Corrosion of metals and alloys*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Disinfection is an important means to prevent the spread of infectious diseases. However, there is no standard on detecting the corrosiveness of disinfectants using the spray method. And, in the current environment, it is highly practical to establish International Standards on the spray test method for the corrosiveness of disinfectants. This document provides a basis for the corrosion detection of disinfectants and helps prevent potential hazards caused by the improper use of disinfectants worldwide.

Corrosion of metals and alloys — Corrosion test method for disinfectant — Spray test method

WARNING — This document does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

1 Scope

This document specifies an aerosol spray method for testing the corrosivity of disinfectants against metallic materials. The test method involves the cyclic exposure of test specimens to a mist of disinfectant and to a ventilation condition. After the cycles, the specimens are studied to identify if there is a change in mass, or changes to the specimen surface. This document provides details on the instruments, reagents, preparation and pretreatment of the test specimens, test conditions, test methods, calculation of corrosion rate, reports, etc.

A feature of this document is a corrosion test method which can stimulate exposure to the real disinfection environment for metal materials. This document is applicable to the determination of corrosion of disinfectant aerosol spray to metal materials.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 6353, *— Reagents for chemical analysis*

ISO 8044, *Corrosion of metals and alloys — Vocabulary*

ISO 8407, *Corrosion of metals and alloys — Removal of corrosion products from corrosion test specimens*

ISO 8486-1, *Bonded abrasives — Determination and designation of grain size distribution — Part 1: Macrogrits F4 to F220*

ISO 11463, *Corrosion of metals and alloys — Guidelines for the evaluation of pitting corrosion*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 8044 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/