

Paints and varnishes — Determination of release rate of biocides from antifouling paints —

**Part 3: Calculation of the zinc
ethylene-bis(dithiocarbamate) (zineb)
release rate by determination of the
concentration of ethylenethiourea in
the extract**

The European Standard EN ISO 15181-3:2007 has the status of a
British Standard

ICS 87.040

National foreword

This British Standard is the UK implementation of EN ISO 15181-3:2007.
The UK participation in its preparation was entrusted to Technical Committee STI/10, Test methods for paints.
A list of organizations represented on this committee can be obtained on request to its secretary.
This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.
Compliance with a British Standard cannot confer immunity from legal obligations.

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Peintures et vernis - Détermination du taux de lixiviation des biocides contenus dans les peintures antisalissures - Partie 3: Calcul du taux de lixiviation de l'éthylène-bis(dithiocarbamate) de zinc (zineb) par détermination de la concentration d'éthylènethiourée dans l'extrait (ISO 15181-3:2007)

Beschichtungsstoffe - Bestimmung der Auswaschrates von Bioziden aus Antifouling-Beschichtungen - Teil 3: Berechnung der Auswaschrates von Zink-Ethylenbis(dithiocarbamat) (Zineb) durch Bestimmung der Konzentration von Ethylenethiourastoff im Extrakt (ISO 15181-3:2007)

This European Standard was approved by CEN on 16 May 2007.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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Foreword

This document (EN ISO 15181-3:2007) has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" in collaboration with Technical Committee CEN/TC 139 "Paints and varnishes", the secretariat of which is held by DIN.

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 2007, and conflicting national standards shall be withdrawn at the latest by December 2007.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of ISO 15181-3:2007 has been approved by CEN as EN ISO 15181-3:2007 without any modifications.

INTERNATIONAL STANDARD

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Part 3: Calculation of the zinc ethylene-bis(dithiocarbamate) (zineb) release rate by determination of the concentration of ethylenethiourea in the extract

*Peintures et vernis — Détermination du taux de lixiviation des biocides
contenus dans les peintures antisalissures —*

*Partie 3: Calcul du taux de lixiviation de l'éthylène-bis(dithiocarbamate)
de zinc (zineb) par détermination de la concentration
d'éthylènthiourée dans l'extrait*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 15181-3 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

ISO 15181 consists of the following parts, under the general title *Paints and varnishes — Determination of release rate of biocides from antifouling paints*:

- *Part 1: General method for extraction of biocides*
- *Part 2: Determination of copper-ion concentration in the extract and calculation of the release rate*
- *Part 3: Calculation of the zinc ethylene-bis(dithiocarbamate) (zineb) release rate by determination of the concentration of ethylenethiourea in the extract*
- *Part 4: Determination of pyridine-triphenylborane (PTPB) concentration in the extract and calculation of the release rate*
- *Part 5: Calculation of the tolylfluanid and dichlofluanid release rate by determination of the concentration of dimethyltolylsulfamide (DMST) and dimethylphenylsulfamide (DMSA) in the extract*