

INTERNATIONAL
STANDARD

ISO
10707

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**Water quality — Evaluation in an aqueous
medium of the “ultimate” aerobic
biodegradability of organic compounds —
Method by analysis of biochemical oxygen
demand (closed bottle test)**

*Qualité de l'eau — Évaluation en milieu aqueux de la biodégradabilité
aérobie «ultime» des composés organiques — Méthode par analyse de
la demande biochimique en oxygène (essai en fiole fermée)*



Reference number
ISO 10707:1994(E)

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.

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.

International Standard ISO 10707 was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 5, *Biological methods*.

Annexes A, B and C of this International Standard are for information only.

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Water quality — Evaluation in an aqueous medium of the “ultimate” aerobic biodegradability of organic compounds — Method by analysis of biochemical oxygen demand (closed bottle test)

WARNING — SAFETY PRECAUTIONS — Activated sludge and sewage may contain potentially pathogenic organisms. Therefore appropriate precautions should be taken when handling them. Toxic test compounds and those whose properties are unknown should be handled with care.

1 Scope

This International Standard specifies a method, by analysis of biochemical oxygen demand, for the evaluation in an aqueous medium of the “ultimate” biodegradability of organic compounds at a given concentration by aerobic microorganisms.

The conditions described in this International Standard do not necessarily always correspond to the optimal conditions for allowing the maximum value of biodegradation to occur.

The method applies to all organic compounds which are sufficiently water soluble to prepare a stock solution or poorly water soluble when using special dosing techniques.

Due to the low concentration of test compound at the beginning of the test, normally no special precautions for the toxicity of the test compound to the microorganisms of the inoculum is necessary; if required a parallel inhibition test can be performed.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards

are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 5813:1983, *Water quality — Determination of dissolved oxygen — Iodometric method.*

ISO 5814:1990, *Water quality — Determination of dissolved oxygen — Electrochemical probe method.*

ISO 6060:1989, *Water quality — Determination of the chemical oxygen demand.*

ISO 9887:1992, *Water quality — Evaluation of the aerobic biodegradability of organic compounds in an aqueous medium — Semi-continuous activated sludge method (SCAS).*

ISO 9888:1991, *Water quality — Evaluation of the aerobic biodegradability of organic compounds in an aqueous medium — Static test (Zahn-Wellens method).*

ISO 10304-2:—¹⁾, *Water quality — Determination of dissolved anions by liquid chromatography of ions — Part 2: Determination of bromide, chloride, nitrate, nitrite, orthophosphate and sulfite in waste water.*

1) To be published.