
**Water quality — Determination of chronic
toxicity to *Ceriodaphnia dubia***

*Qualité de l'eau — Détermination de la toxicité chronique vis-à-vis de
Ceriodaphnia dubia*



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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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 20665 was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 5, *Biological methods*.

Introduction

The highlighting of harmful effects for water quality has for several years involved the carrying out of biological tests. The Cladocera, *Ceriodaphnia dubia*, is recognised as being representative of the zooplankton species widely used in aquatic toxicity tests.

The shortness of the chronic toxicity test, (7 ± 1) d, and the low volumes used are major assets for obtaining relevant results on samples that may be subject to changes during the storage period.

The user should be aware that particular problems could require the specifications of additional marginal conditions.

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WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This International Standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

IMPORTANT — It is absolutely essential that tests conducted according to this International Standard be carried out by suitably trained staff.

1 Scope

This International Standard specifies a method for the determination of the chronic toxicity to *Ceriodaphnia dubia* (Cladocera, Crustacea), based on reproduction inhibition after (7 ± 1) d.

The method is applicable to:

- a) chemical substances which are soluble or which can be maintained as stable suspensions or dispersions under the conditions of the test;
- b) industrial or sewage effluents, if appropriate after decantation, filtration or centrifugation;
- c) fresh waters;
- d) aqueous extracts.

This International Standard is not applicable to the testing of aquatic samples from the estuarine or marine environment.

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 5667-16:1998, *Water quality — Sampling — Part 16: Guidance on biotesting of samples*

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

ISO 6059, *Water quality — Determination of the sum of calcium and magnesium — EDTA titrimetric method*

ISO 10523, *Water quality — Determination of pH*

ISO/TS 20281, *Water quality — Guidance on statistical interpretation of ecotoxicity data*