

This is a preview of "ISO 6341:2012". [Click here to purchase the full version from the ANSI store.](#)

Fourth edition  
2012-10-15

---

---

**Water quality — Determination of the inhibition of the mobility of *Daphnia magna* Straus (Cladocera, Crustacea) — Acute toxicity test**

*Qualité de l'eau — Détermination de l'inhibition de la mobilité de Daphnia magna Straus (Cladocera, Crustacea) — Essai de toxicité aiguë*



Reference number  
ISO 6341:2012(E)

© ISO 2012

This is a preview of "ISO 6341:2012". [Click here to purchase the full version from the ANSI store.](#)



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

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](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

This is a preview of "ISO 6341:2012". [Click here to purchase the full version from the ANSI store.](#)

## Contents

Page

Foreword .....	iv
Introduction .....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Principle .....	2
5 Test environment .....	2
6 Reagents, test organisms and media .....	3
7 Apparatus and materials .....	4
8 Treatment and preparation of samples .....	5
8.1 Special precautions for sampling, transportation, storage and treatment of water, effluent, or aqueous extract samples to be tested .....	5
8.2 Preparation of solutions of substances to be tested .....	6
9 Procedure .....	6
9.1 General .....	6
9.2 Preliminary test .....	7
9.3 Definitive test .....	7
9.4 Check of the sensitivity of the <i>Daphnia magna</i> and conformity with the procedure .....	7
9.5 Limit test .....	8
10 Interpretation and validity of the results .....	8
10.1 Estimation of the EC <sub>50</sub> .....	8
10.2 Validity criteria .....	8
11 Expression of results .....	8
12 Test report .....	8
Annex A (informative) Preparation of the Elendt M4 medium .....	10
Annex B (informative) Example of graphical determination of the inhibition of mobility of <i>Daphnia magna</i> by an effluent or stock solution of a substance at a concentration of 1 000 mg/l .....	13
Annex C (informative) General recommendations for stock culturing .....	16
Annex D (informative) Culturing of <i>Daphnia magna</i> for production of dormant eggs .....	17
Annex E (informative) Precision data .....	19
Annex F (informative) Dilution level <i>D</i> — Preparation of the dilution series for the determination of the LID .....	20
Bibliography .....	22

This is a preview of "ISO 6341:2012". [Click here to purchase the full version from the ANSI store.](#)

## 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 6341 was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 5, *Biological methods*.

This fourth edition cancels and replaces the third edition (ISO 6341:1996), which has been technically revised. It also incorporates the Technical Corrigendum ISO 6341:1996/Cor. 1:1998.

This is a preview of "ISO 6341:2012". [Click here to purchase the full version from the ANSI store.](#)

## Introduction

This International Standard specifies a procedure for the determination of the acute toxicity of chemicals, waters and waste waters to the water flea *Daphnia magna* Straus.

The evaluation of harmful effects on water quality has for several years involved the performance of biological tests. Crustaceans are of interest from the ecotoxicological point of view because they are primary consumers and a major component of the zooplankton in aquatic ecosystems.

The test specified in this International Standard involves the determination of the immobilization of the water flea *Daphnia magna* Straus after 24 h or 48 h exposure (depending on the requirement of users or national authorities) to the test sample under the conditions specified in this International Standard.