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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

SN/T 3946-2014

Chemicals. Acute fish toxicity testing. Threshold approach

化学品 急性鱼类毒性试验 阈值法

(English Translation)

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Table of Contents

- Foreword
- Introduction
- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4.1 Test Types

Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard technical content and Organisation for Economic Co-operation and Development (OECD) Test and Evaluation Series No.126 "Fish acute toxicity test threshold A short guide to law "(ShortGuidanceontheTresholdApproachforAcuteFishToxicity) (2010) agreement.

This standard is proposed and managed by the National Certification and Accreditation Administration Committee.

This standard was drafted. People's Republic of China Ningbo Exit Inspection and Quarantine.

Introduction

This standard acute fish toxicity threshold method provides a brief guide method.

The standard of English text by the European Commission in 2006 and submitted to the OECD. In 2008 and 2009 National Coordinators test Program guidelines, the Working Group on a draft guidance document for the numerous discussions. Until March 2010 meeting held on 23-25 on the guidance document was formally approved. In 2010 the Commission chemicals and chemical products, pesticides, Joint Meeting of the Working Group on Biotechnology may 5 this guidance document included in the system as a standard for publishing.

Based on animal welfare and the effective use of resources considered in possible try to avoid unnecessary use of animals it is very important. In water Health toxicology, especially for fish acute toxicity test conducted under OECD TG203. Threshold method is described in future regional Fish toxicity may initially use a single concentration of the test (i.e., limit test), and use than traditional full acute fish toxicity study less Test fish. The selection is

based on the individual concentration threshold concentration (thresholdConcentration, TC) derivation, and TC and from reliable Acute algae and invertebrates (such as Daphnia) toxicity data from. If a group/species E/LC50 is available, and the fish off than the More sensitive groups/species or less sensitive at this time, you should consider fish toxicity tests on TC. If you use TC limited trials no death, in the further hazard or risk assessment, instead of using the TC LC50.

Threshold method proposed in vivo during the acute fish toxicity test, to be in good working order. Threshold is mainly based on the observation. the fish is not Always the most sensitive species tested 1). The concept was originally described in the pharmaceutical field to give 2), and later the Joint Research Centre of the European Commission to consider OECDTG2033) are necessary to add a limited test, therefore, to further extend this concept to chemicals 4). In addition, some publications Confirm Threshold acute toxicity test can indeed reduce the number of fish 5), therefore, also be applied to other chemical substances outside.

If short-term exposure 6) The results showed that fish is the most sensitive test organism, then the law can provide a threshold concentration - response relationship to derive Accurate LC50.

1) References [1,2].

2) Reference [2].

3) References [3,4].

4) References [5].

5) References [6,7].

6) References [7].

Chemicals Fish acute toxicity test method Threshold

1 Scope

This standard specifies the terms and definitions fish acute toxicity test threshold method, methods, data and reports.

This standard applies to fish acute toxicity test threshold method.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 21805 Chemicals algal growth inhibition test (OECDTG201) GB/T 21830 daphnia

acute chemical activity inhibition test (OECDTG202) GB/T 27861 Chemicals Fish acute toxicity test (OECDTG203)

3 Terms and Definitions

The following terms and definitions apply to this document.

Acute toxicity Organism short time (days) exposure to significant adverse reactions to certain chemicals produced. In this test, acute toxicity induced by half Dead concentration (LC50) to indicate that at any given time, resulting in a 50% concentration of the substance in the test fish died. If the algae or water fleas, then mining with IC50 (EC50) to indicate that at any given time, resulting in 50% growth of algae and water fleas emerge or suppress the activity of substance concentration.

Dose dose

The dose to the organisms exposed to the test substance, the method used in mg/L.

Limited test limitest If data show that the test can be limited when the intended subject matter is not toxic. In this experiment test concentration limits mentioned to 100mg/L.

Method 4

4.1 Test Types

When it is desired to provide acute fish toxicity data, the recommended threshold method. The entire test method may include the following types.

--- GB/T 21805 Chemicals algae growth inhibition test (TG201 fresh water algae and cyanobacteria, growth inhibition test);

--- GB/T 21830 daphnia acute chemical activity inhibition test (TG202 daphnia acute immobilisation test);

--- GB/T 27861 Chemicals Fish acute toxicity test (OECDTG203 fish acute toxicity test --- Limited