

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

SN/T 4152-2015

**Chemicals--Test guidance on aquatic hazards to the difficult
test substances**

化学品 难测试物质水生试验分类方法

(English Translation)

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Foreword

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

The technical content of this standard is in line with A9.3.5 in Annex 9 of the Globally Harmonized System of Classification and Labeling of Chemicals (English version, Third Revision) Consistent content.

This standard has the following structure and editorial changes.

- the addition of the scope chapter;

--- Added an abbreviation chapter;

The dosage unit is changed to our legal dosage unit.

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

The drafting unit of this standard. Tianjin Entry - Exit Inspection and Quarantine Bureau of the People's Republic of China.

Introduction

Effective aquatic toxicity tests require that the test substance be water-soluble under the recommended test conditions and that its bioavailability exposure the degree can remain constant throughout the test. Some chemicals are difficult to test in the aquatic system, and this has helped to do this Guidance on the testing of substances (Ministry of Energy, 1996. Center for Ecotoxicology and Toxicology, European Chemicals, 1996; USEPA, 1996).

The Organization for Economic Co-operation and Development (OECD) is currently finalizing the guidance document on the aquatic toxicity test of refractory substances and mixtures (economic Organization for Development and Development, 2000). The latter document is about the type of material that is difficult to test, and to ensure that the test of these substances is effective. Need to take a good source of information for the steps.

However, many of the existing test data may use tests that are not currently considered to be the best, but can still be used to Class of standard information. This data, while ultimately requiring experts to determine their effectiveness, still needs to provide special guidance on data interpretation.

These refractory substances may be poorly soluble, unstable, or rapidly reduced in processes such as light conversion, hydrolysis, oxidation or biodegradation solution. In conducting algae tests, colored materials may affect the test results by attenuating the light required for cell growth. Similarly, as Higher than the solubility of the cloud-like dispersion test material, may lead to false toxicity test results. Load the water column with the test substance can not be applied to particles or solids such as metals. Petroleum fractions also have loading problems, in the test L (E) C50 value, how to take appropriate the concentration should also have difficult to explain the problem. This standard describes the refractory substances and mixtures of aquatic toxicity tests in most substances Common characteristics.

Classification of Aquatic Toxicity of Chemical Difficult to Test Substances

1 Scope

This standard specifies the abbreviations in the aquatic toxicity test of chemicals, the factors that affect the aquatic toxicity test, and the difficulties in the aquatic toxicity test.

Classification of test substances.

This standard applies to chemicals in aquatic toxicity test difficult to test substances.

2 Abbreviations

The following abbreviations apply to this document.

EC50. The concentration of the effective substance that causes 50% of the maximum response.

LC50. Chemical concentration in 50% (half) of a group of animals in air or water.

L (E) C50. LC50 or EC50.

Factors affecting aquatic toxicity

3.1 Stability

If the concentration of the test chemical may drop below 80% of the normal value, an updated test exposure system, preferably half Static or streaming conditions. For algae tests, static tests are usually required, and crustaceans and fish species can be used in other routes of contact.

In these trials, there will be a certain level of degradation and other relevant factors, should be given in the calculation of toxic concentrations to give appropriate consideration. When the drop occurs the effect of the toxicity test results of the degradation products should be taken into account. In determining whether the data can be used for classification, experts will need to make judgments.

3.2 Degradation

When the compounds are decomposed or degraded under test conditions, the experts should use the toxicological calculations for classification, including whether to consider Known or possible decomposition products. It is desirable to provide the concentration of the parent material and the major toxic degradation products. If the degradation product is expected to be relative for example, it is necessary to use an updateable exposure test condition to ensure that the concentration of the parent compound can be maintained.

3.3 Saturation

For a single constituent material, the classification should be based only on the toxicities observed in the soluble range, rather than on the basis of the total solubility Chemical load. Often data indicate that the toxic level of the substance is greater than its solubility in water, and these data are considered invalid data unless Reasonable explanation.

3.4 Interference of test media

If necessary, take special measures to ensure the solubility of difficult to test substances. These measures should not cause significant changes in the test medium because it is possible to increase or decrease the toxicity, thereby changing the classification of the test substance.

3.5 Complexes

Many of the substances involved in the classification process are in fact mixtures, and it is difficult to measure the exposure concentration for these substances. Some substances than such as petroleum fractions, polymers, and substances with more impurities, it is difficult to determine the toxic concentration. Typical test methods usually depend on