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

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**Chemicals - Water-sediment myriophyllum spicatum toxicity
test**

化学品 水-沉积物系统中穗状狐尾藻毒性试验

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents". Drafting.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Hazardous Chemicals Management (SAC/TC251).

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Introduction

The guidelines published by the Plant Risk Assessment Workshop recommend that if certain tested chemicals are known to be insensitive to the mechanisms of action of duckweed and algae, or Predicting the distribution of chemicals in sediments and their exposure through root uptake allows for the testing of the toxicity of the tested chemicals to large-rooted plants.

If toxicity data for underwater-rooted dicotyledonous plant species are required, **Myriophyllum spicatum** is a preferred test species. This document cannot replace...

This can serve as a supplement to other aquatic toxicity tests and as a higher-level strategy for addressing risks to aquatic plants, contributing to a more comprehensive approach.

Aquatic plant hazards and risk assessment. Furthermore, the experimental methods provided in this document are a good supplement to sediment-free experiments with **Myriophyllum spicatum**.

A test method for exposing **Myriophyllum spicatum** to the test chemical in a water-sediment system under static conditions via a water column pulse program has been established.

Through inter-laboratory comparison and verification, this test method can also be applied to spiked sediments or aqueous phase exposures under semi-static or pulsed dose scenarios.

This document does not elaborate on the testing methods for other species, but the relevant testing conditions, method design, and exposure time can be modified to make them suitable.

For use with other rooting, submerged, and emergent species, such as **Myriophyllum spicatum** and **Eragrostis spp.** Using alternative species may require further experimentation to determine the best approach.

Determine a suitable experimental procedure.

The test methods described in this document are applicable to test substances, formulations, commercial products, or known mixtures that have been validated in comparative validation reports.

To meet new data requirements arising from the partitioning of potential test substances

into sediments or due to issues of action mode/sensitivity. Conduct testing.

The specific reasons will determine the exposure pathway of the test (i.e., exposure through the aqueous phase or sediment). If this method is used to test the mixture and...

When using the obtained data for regulatory purposes, it is necessary to consider whether the test results are sufficient and valid, and whether there are regulations that explicitly allow for the testing of mixtures.

If you want to try it, you can directly use this document.

Myriophyllum spicatum in chemical water-sediment system Toxicity test

1 Scope

This document specifies the test principle, test substance information, reference material, and test procedure for the toxicity testing of *Myriophyllum spicatum* in chemical water-sediment systems.

Materials and conditions, test procedures, quality assurance and quality control, data statistics and test reports.

This document is applicable to evaluating the effects of chemicals on the root systems of aquatic plants growing in water-sediment standard media (water, sediment, and nutrient solution).

The impact on the vitality of Myriophyllum sp.

2 Normative references

GB/T 21801

GB/T 21802

GB/T 21803

GB/T 21831

GB/T 21845

GB/T 21852

GB/T 21853

GB/T 21855

GB/T 21856

GB/T 21857

GB/T 22052

GB/T 22228

GB/T 22229

GB/T 27850

GB/T 42426

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 water-sediment system

A water-sediment test system was established in the laboratory using aqueous culture medium and artificial soil.

Note. This is used to simulate the growth of *Myriophyllum spicatum* in the wild.