

DUCKWEED TOXKIT F F

DUCKWEED Toxicity TEST



72 h growth inhibition test with the duckweed species *Spirodela polyrhiza*

Conform with ISO Standard 20227

The DUCKWEED TOXKIT F contains all the materials to perform **two toxicity tests**

The test species are included in the kit as **turions** (vegetative buds) which can be stored and germinated on demand, to supply the duckweeds for the conduct of the toxicity test

Standardised and culture-independent small-scale bioassays with the higher aquatic plant, duckweed species *Spirodela polyrhiza*

DUCKWEED TOXKIT F applicable for toxicity screening of chemicals - effluents - sediment pore waters and elutriates - surface and groundwaters - wastewaters - pesticides and other research applications



DUCKWEED TOXKIT F F

72 h Duckweed Toxicity Test For Toxicity Screening of
Chemicals - Effluents - Sediments pore waters and elutriates
Surface and Groundwaters - Wastewaters - Pesticides

CONTENTS OF THE DUCKWEED TOXKIT F

The DUCKWEED TOXKIT F contains all materials to perform two complete acute toxicity tests with the higher aquatic plant, duckweed species *Spirodela polyrhiza*.

- Tubes with turions, concentrated growth and toxicant dilution medium, germination and test containers and a spatula for the transfer of the germinated turions
- Detailed Standard Operating Procedure, data scoring sheets
- Quality Control specification sheet

REPRODUCIBILITY

COST-EFFECTIVENESS

USER-FRIENDLINESS

- The dormant turions can be germinated on demand, eliminating the cost of continuous culturing and maintenance of stocks of test organisms.
- Turions of high quality produced in strictly controlled conditions preclude variability associated with recruitment/maintenance of live stocks in conventional bioassays.
- Shelf life of the turions is guaranteed for several months when stored properly, reducing test scheduling constraints.
- The Duckweed Toxkit F has easy to follow instructions for the conduct of the toxicity test.
- Growth inhibition of the duckweed is determined by area measurement of the first frond with the aid of digital Image Analysis.
- Minimal equipment and space is needed for the test performance: incubator with lights - conventional laboratory glassware.

SENSITIVITY

VALIDATION

- The sensitivity of the duckweed species *Spirodela polyrhiza* used in this microbiotest is comparable to the sensitivity of the *Lemna* duckweed species used in conventional duckweed assays.
- The Duckweed Toxkit F with *Spirodela polyrhiza* is used in many environmental laboratories and research institutes worldwide and is validated by an extensive international interlaboratory comparison.
- The DUCKWEED TOXKIT F strictly adheres to the protocols for regulatory testing prescribed by international organisations; ISO Standard 20227.
- A substantial number of publications, posters, reports and reviews can be found on www.microbiotests.com