

RAPIDTOXKIT

MICROBIOTESTS

With the
crustacean
*Thamnocephalus
platyurus*



**Cost-effective
culture/maintenance free*
bioassays**

**for rapid detection of water
contamination**

**Test organisms are included in the kits as « dormant eggs »
which can be hatched « on demand »*



Each kit contains all the materials to perform 3 independent series of tests on 7 up to 15 water samples each

RAPIDTOXKIT

30-60 min. Microbiotest For Rapid Detection of Water Contamination

*Each RAPIDTOXKIT contains all the materials necessary to perform 3 independent series of tests on 7 up to 15 water samples each with larvae of the freshwater crustacean *Thamnocephalus platyurus*. Easy to follow instructions and detailed illustrations are provided in the kits for the conduct of the very rapid assays. The test organisms are included in the kits as « dormant eggs (cysts)» which can easily be hatched “on demand” to supply the live biota for the conduct of the assays.*

Test criterion

- The RAPIDTOXKIT is a 30-60 minutes sublethal assay based on the decrease or the absence of ingestion of red microspheres by the test organisms exposed to contaminated waters.

Reproducibility

- Cysts of high quality produced in strictly controlled conditions preclude variability associated with recruitment/ maintenance of live stocks in conventional bioassays.
- Highly uniform quality standard freshwater is included in the kits for the control tests in uncontaminated water.
- Standardized hatching vessel and conical base test tubes constructed of biologically inert materials ensure uniform hatching and exposure conditions.

Cost-Effectiveness

- Cysts can be hatched on demand, eliminating the need and the costs of continuous culturing and maintenance of test organisms.
- Minimal equipment needed for test performance: small incubator - stereo-microscope provided with strong incident illumination - 1 ml micropipette.
- Shelf-life of cysts guaranteed for several months when stored properly, reducing test scheduling constraints.

Contents

- Tubes with cysts, flask with hatching and control water medium, hatching vessels, conical base sub-sampling and test tubes in holders, vial with red microspheres, vial with fixative, observation plates with covers, mirror with sliding white strip.
- Detailed Standard Operational Procedure brochure, abbreviated Bench Protocol, data scoring sheets.
- Specification sheet with batch number of the cysts, standard freshwater medium, red microspheres and fixative.

User-Friendliness

- Very simple handlings and scorings.
- Total performance time of the assay from 30 to 90 minutes.

Sensitivity

- Very sensitive sublethal assay.
- More sensitive than bacterial luminescence inhibition tests for particular chemical compounds and biotoxins.

- Detection threshold for toxicants is below Human Lethal Dose (HLD) which makes the Rapidtoxkit particularly suited for assessment of (accidental or deliberate) water contamination threats.

Supporting equipment

- The “availability” of the live test organisms can be selected with the aid of the “Mini Toxkit Incubator” which allows to programme the exact hatching time of the cysts up to 4 days in advance.
- A low cost ringlight with holder has been developed specifically for the Rapidtoxkit for the observation of the test organisms under the stereomicroscope.

N.B. All the materials included in the RAPID-TOXKIT are also available separately.

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