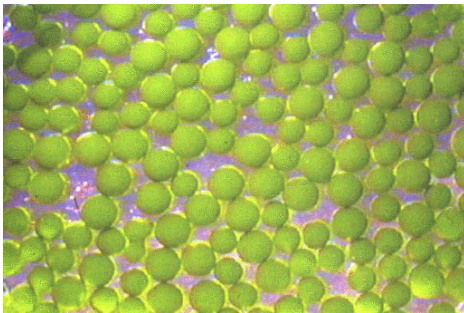


ALGALTOXKIT F

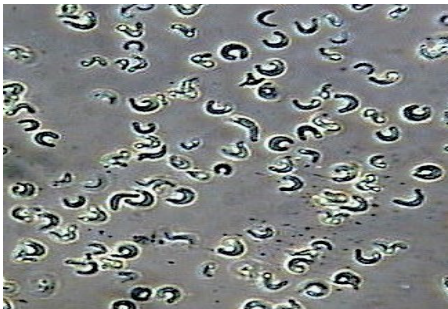
MICROBIOTESTS

Cost-effective, culture/maintenance free* bioassays with the micro-algae *Pseudokirchneriella subcapitata*

(former names :*Selenastrum capricornutum* and *Raphidocelis subcapitata*)



Algal beads (2 mm)
> 1 million algal cells per bead



Algal cells

The micro-algae are included in the kits in “algal beads” from which they can be set free “on demand”

Each Algaltoxkit contains all the materials to perform two 72h growth inhibition tests



ALGALTOXKIT F

72h Microbiotest For Toxicity Screening of Pure Compounds - Effluents - Sediments - Surface and Ground Waters - Wastewaters

*Each ALGALTOXKIT F contains all the materials necessary to perform two growth inhibition tests with the freshwater micro-algae *Pseudokirchneriella subcapitata*.*

Easy to follow instructions and detailed illustrations are provided in the kits for the conduct of range-finding and definitive tests. The test organisms are included in the kits in «algal beads» from which the microalgae can easily be set free, to supply the live biota for the conduct of the assays.

Test criterion

- The ALGALTOXKIT F is a 72h assay based on growth inhibition of the micro-algae, with calculation of the 72hEC50.

Reproducibility

- Algal beads of high quality produced in strictly controlled conditions preclude variability associated with recruitment/maintenance of live stocks of microalgae in exponential growth phase, in conventional bioassays.
- Highly uniform quality of the test medium is achieved by simple dilution of concentrated solutions of selected chemicals with deionized water.
- Standardized “long cell” test containers (10 cm path length) constructed of biologically inert materials ensure uniform exposure conditions.
- A Quality Control Test with a reference chemical is described in detail, for accuracy and reproducibility check.

Cost-Effectiveness

- The ALGALTOXKIT makes use of unique disposable “long cell” exposure chambers (10 cm path length), which also serve as measuring cuvettes for direct determination of algal growth by optical density measurements.
- Labour time for testing is significantly reduced by the direct measurement of algal growth in the long cells in a spectrophotometer with a 10 cm cuvette holder.
- Shelf-life of the algal beads is guaranteed for several months when stored properly,

Contents

- Tubes with algal beads, concentrated algal growth and toxicant dilution medium, long cells and holding trays.
- Detailed Standard Operational Procedure brochure, abbreviated Bench Protocol, OD/N regression sheet, data scoring sheets and graphical EC50 calculation sheets.
- Specification sheet with batch number of the algal beads and the media.

User-Friendliness

- Bioassays can be started immediately after “de-immobilization” of the microalgae from the beads
- Simple handlings and scorings.
- Daily scoring of the optical density of the microalgae in the long cells takes less than 15 min.
- A computer programme for easy data treatment can be obtained on demand.

Sensitivity

- Similar to the sensitivity of the algal growth inhibition test with microalgae from laboratory cultures.

Validation

- The ALGALTOXKIT is used in many laboratories worldwide for routine screening of chemicals and environmental samples and has been validated by an extensive international interlaboratory comparison.
- **The ALGALTOXKIT microbiotest strictly adheres to the protocols for regulatory testing with microalgae, prescribed by international organizations (e.g ISO standard 8692 and OECD Guideline 201).**
- A substantial number of publications, reports and posters can be found in the section “Publications” on website www.microbiotests.be.

N.B. All the materials included in the ALGALTOXKIT are also available separately.