

DAPHTOXKIT F™

MICROBIOTESTS

Cost-effective, culture/maintenance free* bioassays
with the freshwater crustaceans
Daphnia magna and *Daphnia pulex*

DAPHTOXKIT F

magna

Contains all the materials to
conduct six
48h immobility/mortality tests



**Test organisms are included in the kits as “dormant eggs (ephippia)” which can be hatched “on demand”*

DAPHTOXKIT F

pulex

Contains all the materials to
perform six
48h immobility/mortality tests



DAPHTOXXKIT F™

48h Microbiotests For Toxicity Screening of Pure Compounds - Effluents - Sediments - Surface and Ground Waters - Wastewaters

*The DAPHTOXXKITS F magna and DAPHTOXXKIT F pulex contain all the materials necessary to perform six acute toxicity tests with the freshwater crustaceans *Daphnia magna* and *Daphnia pulex* respectively. 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 as «dormant eggs (ephippia)» which can easily be hatched on demand in 72h, to supply the live biota for the conduct of the assays.*

Test criterion

- The DAPHTOXXKIT F microbiotests are 48h assays based on immobility or mortality of the test organisms, with calculation of the EC50 or LC50.

Reproducibility

- Ehippia of high quality produced in strictly controlled conditions preclude variability associated with recruitment/ maintenance of live stocks in conventional bioassays.
- Highly uniform quality of the test medium is achieved by simple dilution of concentrated solutions of selected salts with deionized water.
- Standardized microplate test containers 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

- Ehippia 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: light table or dissecting microscope - small incubator - conventional laboratory glassware.

- Shelf-life of ehippia guaranteed for several months when stored properly, reducing test scheduling constraints.

Contents

- Tubes with ehippia, concentrated hatching and toxicant dilution medium, hatching and test containers and micropipettes for the transfer of the organisms.
- Detailed Standard Operational Procedure brochure, abbreviated Bench Protocol, data scoring sheets and graphical L(E)C50 calculation sheets.
- Specification sheet with batch number of the ehippia and the media.

User-Friendliness

- Simple handlings and scorings.
- Total performance time of the assay approximately 1 hour.
- A floppy disc for easy Toxkit data treatment can be obtained on demand.

Sensitivity

- Comparable to the sensitivity of Daphnids from laboratory cultures.

Validation

- DAPHTOXXKITS are used in many laboratories worldwide for routine screening of chemicals and environmental samples.
- Substantial number of publications reporting data for various uses.
- The acute DAPHTOXXKIT microbiotests strictly adhere to the protocols for regulatory testing with Daphnias prescribed by international organizations such as e.g. the OECD and the ISO.

A list of selected references is available upon request.

N.B. All the materials included in the DAPH-TOXXKITS are also available separately.

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