

# ARTOXKIT M MICROBIOTESTS

With the marine  
crustacean  
*Artemia franciscana*  
(formerly *Artemia salina*)



Cost-effective,  
culture/maintenance free\*  
bioassays

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



Each Toxkit contains  
all the materials for  
performance of 6  
complete bioassays

# ARTOXKIT M

## 24h Microbiotest For Toxicity Screening of Pure Compounds - Contaminated Seawater and estuarine/marine Sediments - Effluents/Wastes released in Estuaries or coastal Waters - Biotoxins

**Each ARTOXKIT M contains all the materials necessary to perform six acute toxicity tests with the marine crustacean *Artemia franciscana* (formerly *Artemia salina*). 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 (cysts)» which can easily be hatched on demand, in less than 24h, to supply the live biota for the conduct of the assays.**

### **Test criterion**

- The ARTOXKIT M is a 24h assay based on mortality of the test organisms, with calculation of the 24h LC50.

### **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 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**

- 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: dissecting microscope – small incubator – conventional laboratory glass-ware.
- Shelf-life of cysts guaranteed for several months when stored properly, reducing test scheduling constraints.

### **Contents**

- Tubes with cysts, 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 LC50 calculation sheets.
- Specification sheet with batch number of the cysts 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 that of various other estuarine/marine biota.
- Specifically sensitive to biotoxins produced by freshwater and marine micro-algae.

### **Applications**

- One of the most euryhaline test species, which allows to perform bioassays on waters in a salinity ranging from 10 ppt (brackish water) to 35 ppt (seawater)
- Acute microbiotest with *Artemia salina* used for regulatory marine toxicity testing in several countries.

### **Validation**

- The Artoxkit is used in many laboratories worldwide for routine screening of chemicals and environmental samples.
- A substantial number of publications, reports and posters can be found in the section “Publications” on the website [www.microbiotests.be](http://www.microbiotests.be).

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