

MICROBIOTESTS NEWSLETTER N° 7 - MARCH 2016

Each separate topic can be easily accessed by clicking on the titles hereunder.

CONTENTS

[1. ISO STANDARD METHODS FOR TOXICITY TESTS](#)

[2. ADAPTED STANDARD OPERATIONAL PROCEDURE FOR THE PHYTOTESTKIT](#)

[3. SYMPOSIA - WORKSHOPS - TRAINING COURSES](#)

[4. PRACTICAL TRAINING IN TOXKIT MICROBIOTESTS](#)

[5. DISCONTINUATION OF THE BACTERIAL CONTAMINATION SCREENING KIT](#)

1. ISO STANDARD METHODS FOR TOXICITY TESTS

Four ISO standards which conform with MicroBioTests Inc.'s corresponding Toxkit microbiotests have already been mentioned in MicroBioTests Inc.'s previous Newsletter :

- * ISO 6341 - acute *Daphnia magna* test (the Daphtoxkit F magna)
- * ISO 8692 - freshwater algal growth inhibition test (the Algaltoxkit F Selenastrum)
- * ISO 14380 - acute *Thamnocephalus platyurus* test (the Thamnotoxkit F and Rapidtoxkit)
- * ISO 14371 - freshwater sediment toxicity test with *Heterocypris incongruens* (the Ostracodtoxkit F)

Two new ISO standards which are also conform with MicroBioTests Inc.'s Toxkit microbiotests have recently also been published :

- * ISO 19827 - Water Quality - Determination of the acute toxicity to the freshwater rotifer *Brachionus calyciflorus* (the Acute Rotoxkit F)
- * ISO 19820 - Water Quality - Determination of the acute toxicity to the marine rotifer *Brachionus plicatilis* (the Acute Rotoxkit M)

Two other Toxkit microbiotests are nearing the final evaluation stage and also will be published as new ISO standards in the near future :

- * ISO/DIS 20227 - Water Quality - Determination of the growth inhibition effects of waste waters, natural waters and chemicals on the duckweed *Spirodela polyrhiza* - Method using a stock culture independent microbiotest (the Spirodela Duckweed Toxkit)
This microbiotest is actually a "very simple, practical and low cost" alternative to the duckweed toxicity tests with Lemna species which are used to date in many countries. An extensive review on the sensitivity comparison of the Spirodela microbiotest with the standard Lemna minor assay (ISO 20079) can be found in the section "Extensive Reports on Toxkit microbiotests".
- * ISO/FDIS 18763 - Soil Quality - Determination of the toxic effects of pollutants on germination and early growth of higher plants.
This upcoming ISO standard is virtually identical with the Standard Operational Procedure of the Phytotoxkit microbiotest.

ISO 10253 (the marine algal growth inhibition test) is presently under revision. The revised version will contain an Annex which describes the performance of this test with the diatom *Phaeodactylum tricornutum* according to the marine Algaltoxkit microbiotest test procedure.

2. ADAPTED / NEW PHYTOTESTKIT(S)

The Phytotestkit is a variant of the Phytotoxkit microbiotest and allows to determine the "direct" (intrinsic) effect of chemicals on the germination and early growth of plants by spiking a thick filter (in the bottom compartment of the test plate) with the concerned chemical.

MicroBioTests Inc. recently decided to offer its Phytotestkit in two different versions :

- a Phytotestkit "**limit test**" for performance of the assay on 3 plant species at one concentration of the chemical compound
- a Phytotestkit "**complete test**" for performance of a "complete test" with 5 test concentrations of a chemical compound on one plant species, and which allows to calculate the EC50

In case of the Phytotestkit complete test customers will have to indicate which of the 3 plant species they want.

3. SYMPOSIA - WORKSHOPS - TRAINING COURSES

The application of the Toxkit microbiotests in research and biomonitoring programs is regularly highlighted by scientists in regional, national and international symposia and workshops, with oral and poster presentations. The titles and the abstracts of many of these presentations (as well as some posters) can be found on the website www.microbiotests.be in the section "Publications".

Several of the Toxkit distributors have over the last few years taken a stand in Trade Shows and in symposia and workshops in their country to show and demonstrate the Toxkits and some of them have also participated in or even organized Toxkit training courses or workshops on the Toxkit microbiotests.

MicroBioTests Inc. will - in this regard, jointly with their French Toxkit distributor (r-Biopharm) - be present with a stand at the 26th SETAC Europe Annual Meeting which will be organized in Nantes (France) from May 22nd to May 26th 2016.

4. PRACTICAL TRAINING IN TOXKIT MICROBIOTESTS

MicroBioTests Inc. regularly receive requests for practical training on specific Toxkit microbiotests.

For time and cost reasons it is however not possible for them to give such "individual" practical training(s).

It has therefore been decided to organize two times per year "a 2 days practical training course on Toxkit microbiotests" in the premises of MicroBioTests Inc. in Mariakerke (Gent) in Belgium. For practical reasons, the participation in each training course will be limited to a maximum of 6 people.

The program, dates and specifics of the first practical training course are now worked out and will be announced shortly.

5. DISCONTINUATION OF THE BACTERIAL CONTAMINATION SCREENING KIT

Based on the low sale figures of the last years and the very low interest MicroBioTests Inc. decided to stop the production and distribution of the Bacterial Contamination Screening Kit and the associated Lumi-Box.