



Original thinking... applied



Sediment-Water Chironomid Toxicity Test using Spiked Water

This test is designed to determine the long-term effects of the test material on the freshwater dipteran *Chironomus* sp., in a spiked water system.

First instar larvae are introduced into the test vessels and the test material is added to overlying water. Observations are made during the test on the emergence of adult midges. Samples are taken for analysis during the exposure period to determine the concentrations tested in sediment, overlying water and pore water if required.

EC₅₀ values – the concentration of the test chemical which is estimated to have caused 50% effect on emergence or development rate – are calculated. In addition, the No Observed Effect Concentration (NOEC) and Lowest Observed Effect Concentration (LOEC) values may also be calculated

Test guidelines and references

OECD Guidelines for the Testing of Chemicals.

Guideline 219: Sediment-Water Chironomid Toxicity Test Using Spiked Water, adopted 13 April 2004.

FERA'S WORK IN AQUATIC ECOTOXICOLOGY

Fera offers a full package of studies to GLP compliant studies on aquatic organisms. Fera tests for the potential toxic effects of plant protection active ingredients and products, veterinary products, biocides, industrial chemicals and their significant metabolites in accordance with current OECD and if appropriate EPA guidelines, covering the requirements for the registration process.

All of Fera's studies are planned and performed by an experienced team of scientists and technical personnel, with the analytical dose verification and fate of the active ingredient(s) performed as close as possible in parallel to the biological part of the study. We can also adapt our services to provide bespoke tests that meet your specific data requirements.

MORE ABOUT FERA

Fera is based at the National Agri-Food Innovation Campus near York, UK.

We work closely with plant protection and veterinary medicine product manufacturers to help develop effective, sustainable and safe chemical products that minimise ecosystem impacts and pollution, while maximising the beneficial effects for crops, plants and animals.

Combining the extensive expertise of our scientists with advanced resources and GLP-compliant laboratories, we provide valuable support to companies in their chemical evaluation and registration efforts.

GET IN TOUCH

For more information and to book a test, call Fera on **+44 (0)300 100 0321**, email **sales@fera.co.uk** or visit **www.fera.co.uk/chemical-regulation**

