



Innovative  
Environmental  
Services (IES) Ltd

Benkenstrasse 260  
4108 Witterswil  
Switzerland

T: +41 61 705 10 31  
F: +41 61 705 10 30



Aquatic  
Ecotoxicology.



# Aquatic Ecotoxicology.

IES Ltd conducts a wide range of studies in the area of aquatic ecotoxicology, which are required for regulatory studies on agrochemicals, biocides, veterinary and human pharmaceuticals and industrial chemicals worldwide.

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## General.

The IES aquatic ecotoxicology team has extensive experience and outstanding technical knowledge in performing various types of aquatic toxicology tests. Our portfolio consists of short-term algae, fish and daphnia tests, as well as higher-tier tests including fish full life cycle tests. IES Ltd works with state-of-the-art equipment and modern technology in order to conduct studies to the highest possible standard.

## Standard Testing.

IES Ltd works according to OECD guidelines, and performs both acute and chronic studies with fish (OECD 203, 210), fish eggs (OECD 212, 236), daphnia (OECD 202, 211), algae (OECD 201) and lemna (OECD 221). In addition to these study types, we also perform bacterial toxicity tests (OECD 209) and biodegradation tests (OECD 301). Studies performed at IES Ltd meet the international criteria required for the registration. Most OECD guidelines have an equivalent in the USA (EPA/VOCSP guidelines) and Japan (JMAFF guidelines) and we are able to adapt the study design accordingly when it is necessary to follow specific international guidelines.

## Higher-Tier Testing.

When a bespoke test design is required (e.g. pulse dose tests, recovery test, and test on sediment or with humic acid) to refine the risk assessment for substances, we offer our clients the option to develop the study design together with IES scientists. The aquatic ecotoxicology team has extensive experience with higher-tier algae, fish, daphnia and lemna tests.

## Endocrine Disruptor Studies.

For substances that are suspected to have endocrine-disrupting potential, a set of tests has to be conducted to investigate the effects on the environment. IES Ltd offers the fish short-term reproduction test (OECD 229) and the amphibian metamorphosis assay (OECD 231). We also conduct the fish full life cycle test when required. As far as the histopathological parts of these tests are concerned, we collaborate with external partners.

## Analytical Support.

State-of-the-art equipment and a highly experienced analytical department are of vital importance in order to provide high-quality data in the field of aquatic ecotoxicology.

Our team of analytical chemists who support the aquatic ecotoxicology team are highly skilled in using a broad range of analytical techniques such as HPLC with different detectors (UV, DAD, ELSD, FLD, RI), LC-MS, GC, GC-MS and AAS. The team has experience in working with difficult substances (according to OECD 23: Guidance Document on Aquatic Toxicity Testing of Difficult Substances and Mixtures) and is therefore successful in performing the full range of tests required for this type of substance registration.