



State of Oregon Department of Environmental Quality

Hazardous Waste Aquatic Toxicity Test

700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100

Scope and Application

This method is used to determine the lethal characteristics of pesticides or pesticide manufacturing residues to aquatic organisms in accordance to Oregon Administrative Rule 340-101-0033 (5)(a); Aquatic Toxicity Bioassay.

Summary of Method

1. The permittee must conduct a 96-hour static renewal test with *Ceriodaphnia dubia*¹, *Daphnia magna* or *Hyalella azteca*².
2. All test methods and procedures must be in accordance with **Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms**, Fifth Edition, EPA-821-R-02-012, October 2002, or most current edition. Any deviation of the bioassay procedures outlined in this method must be submitted in writing to the DEQ Laboratory for review and approval prior to use.
3. Acute tests must be conducted on a control (0 percent) and test solution (100 percent) of 250 ppm (mg/L) concentration of the pesticide or pesticide manufacturing residue. Dilution water shall be moderately hard laboratory water.
4. No treatments to the test solution once prepared (i.e. pH adjustment, etc), except those included as part of the methodology, shall be performed by the laboratory unless approved by DEQ prior to analysis.
5. The material is characterized as acutely toxic if mortality of test organisms exceeds 50 percent in test solution and all test required control conditions are met.

Quality Assurance/Reporting

Quality assurance criteria, statistical analyses and data reporting for the Whole Effluent Toxicity tests must be in accordance with the EPA documents (EPA-821-R-02-012 or most current edition).

A bioassay laboratory report for each test must be prepared according to the EPA method documents referenced in this Schedule. This will include all QA/QC documentation, statistical analysis for each test performed, standard reference toxicant test (SRT) conducted on each species required for the toxicity tests, and completed Chain of Custody forms for the samples including time of sample collection and receipt.

Alternative formats

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email deqinfo@deq.state.or.us.

¹ *Ceriodaphnia dubia* is a commonly found acute species.

² *Hyalella azteca* is a sediment dwelling organism.