



Instructions for Catalog # AQC018 USEPA Test Code 44

Revision 090119

Organism: Inland silverside (*Menidia beryllina*)

Test Conditions: 48-Hour Acute, Non-renewal, 25°C, Synthetic Seawater (SSW)

Description:

- This reference toxicant is designed for the Inland silverside (*Menidia beryllina*), 48-Hour Acute, Non-renewal, 25°C, Synthetic Seawater (SSW), Toxicity Test (i.e., USEPA Test Code 44, USEPA Method Code 2006.0).
- This reference toxicant is packaged in a 125 mL bottle containing approximately 125 mL of standard concentrate.
- This concentrate can be stored at room temperature.
- This product is intended to be used as a quality control check of the entire analytical process for the analytes/matrix included in the standard.
- The dilution instructions below represent the minimum suggested sample size for this product. Using a smaller sample size may invalidate the assigned value and/or uncertainty shown on the certificate of analysis.
- The certified values apply to the diluted sample after following the stated dilution instructions.

Helpful Hints:

- This reference toxicant has been prepared as a concentrate and must be diluted prior to analysis to prepare a “simulated” effluent (hereafter referred to as the effluent).
- This reference toxicant must be diluted with synthetic seawater (SSW), prepared from Millipore Milli-Q® deionized water (or equivalent) and artificial sea salts, as specified in the current version of the USEPA methods manual.
- The diluted effluent should be utilized as soon as possible after preparation.

Instructions:

1. Add approximately 1.8 Liters of synthetic seawater (SSW) to a clean, dry, 2.0 Liter, class A volumetric flask.
2. Shake the reference toxicant concentrate bottle prior to opening.
3. Using a clean, dry, 50 mL, class A volumetric flask, carefully transfer 50 mL of the reference toxicant concentrate into the 2.0 L flask.
4. Rinse the 50 mL flask into the 2.0 L flask using SSW.
5. Dilute the 2.0 L flask to final volume using SSW.
6. Cap the flask and mix well.

The effluent prepared according to these instructions represents the 100% effluent. See below for secondary dilution instructions:

1. Split the 100% effluent sample into two 1.0 L aliquots. The first aliquot is your 100% effluent for testing.
2. Dilute the second aliquot with 1.0 L of SSW and mix. This is your 50% effluent sample.
3. Continue diluting half of each sample with the same volume of SSW to make your 25%, 12.5% and 6.25% effluent dilutions, which represent all five test dilutions.
4. You are now ready to proceed with the test following your normal procedures.
5. If necessary, additional effluent may be prepared using the same reference toxicant concentrate and following instructions 1-6 above.

Safety:

ERA products may be hazardous and are intended for use by professional laboratory personnel trained in the competent handling of such materials. Responsibility for the safe use of these products rests entirely with the buyer and/or user. Safety Data Sheets (SDS) for all ERA products are available through our website www.eraqc.com.