

Instructions for Use

QCI-700 ULTRAcHECK™ Trace Metals Quality Check Sample

Please read these instructions carefully before using the quality check sample concentrate. Please note that the dilution factors for the two ampules are not the same.

1. Storing the Sample

See package label for information on storage conditions and expiration.

2. Preparing the Sample for Use

The sample consists of two ampules which must be diluted and mixed prior to analysis. Break the ampule marked QCI-700A, and transfer **10 mL of the QCI-700A** concentrate into a 1 liter volumetric flask. Break the ampule marked QCI-700B, and transfer **1 mL of the QCI-700B** concentrate into the same 1 liter volumetric flask. Add 20 mL concentrated nitric acid, and dilute to volume with 18 megohm water. (If graphite furnace measurement is to be performed, further dilution may be required.) Make certain that further dilutions result in a 2% (v/v) HNO₃ matrix. HNO₃ that is doubly distilled or equivalent is required. Appropriate HNO₃/H₂O blanks are required. After diluting, this product should be stored at 4° C and used within 48 hours.

3. Analyzing the Sample

A blind check sample is used to evaluate the quality of the analytical data generated by the laboratory, so use the method you would normally use to analyze for these particular analytes.

4. Applicable Methods

Analyte	US EPA Method	Analyte	US EPA Method	Analyte	US EPA Method
Aluminum	200.7	Cobalt	200.7	Nickel	200.7
Antimony	200.7	Copper	200.7	Selenium	200.7
Arsenic	200.7	Iron	200.7	Silver	200.7
Barium	200.7	Lead	200.7	Strontium	200.7
Beryllium	200.7	Manganese	200.7	Thallium	200.7
Boron	200.7	Mercury	245.1	Vanadium	200.7
Cadmium	200.7	Molybdenum	200.7	Zinc	200.7
Chromium	200.7				

5. Analyte Concentrations

The certificate showing the reference values and advisory ranges is sealed in an envelope, to be opened after the analysis is completed. The advisory ranges represent QC acceptance criteria for analyte recovery following applicable US EPA methodologies. These ranges are based on interlaboratory data, and are included solely as guides for acceptable performance. Each laboratory should develop criteria for judging acceptable method performance based on the intended use of data.