



## Instructions for Catalog # 500 Water Pollution Trace Metals

Revision 120823

### Description:

- This standard is packaged in a 30 mL amber bottle containing approximately 28 mL of standard concentrate.
- This concentrate is preserved with approximately 2% (v/v) nitric acid and 0.1% (w/v) tartaric acid.
- The 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 standard has been prepared as a concentrate and must be diluted prior to analysis.
- The sample resulting from the dilution described below will have a nitric acid concentration of approximately 0.02% before any acid is added. You may add a volume of acid different from the 2 to 5 mL of HNO<sub>3</sub> suggested in order to matrix match your calibration standards or meet any other method criteria.
- While it is technically not necessary to digest this standard prior to analysis, digestion should be performed if this is your normal procedure.
- This standard should be analyzed as soon as possible after the concentrate is diluted.
- If analyzing this standard using colorimetric techniques, it may be necessary to pH adjust the sample prior to analysis. If using colorimetric techniques, it is acceptable to omit the addition of the 2-5 mL nitric acid suggested.

### Instructions:

1. Add 100-200 mL of deionized water and approximately 2 to 5 mL of nitric acid to a clean 500 mL class A volumetric flask.
2. Shake the Trace Metals bottle prior to opening.
3. Using a clean, dry, class A pipet, volumetrically pipet 10.0 mL of the concentrate into the 500 mL volumetric flask.
4. Dilute the flask to final volume (500 mL) with deionized water.
5. Cap the flask and mix well.
6. Immediately analyze the diluted sample by your normal procedures.

### 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](http://www.eraqc.com).