



Instructions for Catalog # 540 Metals in Soil

Revision 090119

Description:

- This standard is packaged in a 2-ounce glass jar containing approximately 40 grams of soil.
- This standard is not preserved.
- The standard 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.
- ERA suggests that when subsampling this product prior to analysis you use a minimum sample size of at least 0.2 g. Using a smaller sample size may invalidate the assigned value and/or uncertainty shown on the certificate of analysis.
- Repeated sampling of this product is permitted, provided minimum sample sizes and storage instructions are adhered to.
- The certified values apply to the sample after following the stated instructions.

Helpful Hints:

- The Mercury in this standard should be determined using the digestion and analytical procedures in the current version of EPA method 7471, or equivalent.
- The other metals in this standard should be determined using EPA digestion methods 3050 or 3051 followed by your normal analysis procedures. Digesting the sample using another method may yield significantly different results.
- This standard should not be analyzed for Hexavalent Chromium. A separate standard, ERA catalog number 921, is available for Hexavalent Chromium.
- Although all ERA soil standards have been thoroughly blended prior to shipping, the standards should be homogenized prior to taking an aliquot for analysis due to settling which may occur during shipping.
- High recoveries of the metals native to the soil matrix (e.g. aluminum, calcium, iron, magnesium, potassium and titanium) indicate a digestion procedure which may be too vigorous. In general, it should be noted that the methods used to digest metals in soil samples are not extremely rugged and close attention should be paid to the procedure to ensure analyte recoveries which are consistent and within the PALs™.

Instructions:

1. Open the Metals in Soil standard in a fume hood to avoid inhalation of dust.
2. Mix the sample well prior to removing aliquots for analysis.
3. Digest and analyze the standard using your normal procedures.
4. Determine the percent moisture of an aliquot of the Metals in Soil standard.
5. Adjust your results as mg/kg on a dry weight basis.

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.