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## STOCK STANDARD SOLUTION

### CLP-MS-RINSE

2% (v/v) HNO<sub>3</sub>

Starting Material: Nitric Acid  
Starting Material Purity: Doubly Distilled  
Starting Material Lot No: 24028780

### TRACEABILITY DOCUMENTATION FOR STANDARD SOLUTION Lot No: X2-MEB763373

We use 18 megohm deionized water & deionized water rinsed LDPE bottles, with less than 0.5ppb total impurities in the manufacturing of this ICP standard. We always use "in-house calibration checked" Class A Glassware. All balances are checked daily using an in-house procedure. The weights used for testing are annually compared to master weights and are traceable to the National Institute of Standards and Technology (NIST).

**ANALYZED DENSITY OF SOLUTION** (measured at 20 ± 5° C): 1.009 g/mL

### TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP/MS AND ICP-OES IN µg/mL

CRM's solutions are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm. The following data is representative of an analysis for a typical blank solution.

<u>M</u> Al < 0.00010	<u>M</u> Sb < 0.00001	<u>M</u> As < 0.00010	<u>M</u> Ba < 0.00010	<u>M</u> Be < 0.00001
<u>M</u> Bi < 0.00001	<u>M</u> B < 0.00070	<u>M</u> Cd < 0.00003	<u>M</u> Ca < 0.00005	<u>M</u> Ce < 0.00005
<u>M</u> Cs < 0.00001	<u>M</u> Cr < 0.00005	<u>M</u> Co < 0.00003	<u>M</u> Cu < 0.00006	<u>M</u> Dy < 0.00006
<u>M</u> Er < 0.00005	<u>M</u> Eu < 0.00003	<u>M</u> Gd < 0.00001	<u>M</u> Ga < 0.00001	<u>M</u> Ge < 0.00006
<u>M</u> Au < 0.00003	<u>M</u> Hf < 0.00002	<u>M</u> Ho < 0.00001	<u>M</u> In < 0.00010	<u>M</u> Ir < 0.00005
<u>M</u> Fe < 0.00200	<u>M</u> La < 0.00001	<u>M</u> Pb < 0.00003	<u>M</u> Li < 0.00010	<u>M</u> Lu < 0.00001
<u>M</u> Mg < 0.00030	<u>M</u> Mn < 0.00004	<u>M</u> Hg < 0.00001	<u>M</u> Mo < 0.00002	<u>M</u> Nd < 0.00002
<u>M</u> Ni < 0.00008	<u>M</u> Nb < 0.00001	<u>n</u> Os < 0.00001	<u>M</u> Pd < 0.00005	<u>M</u> P < 0.00001
<u>M</u> Pt < 0.00002	<u>M</u> K < 0.00005	<u>M</u> Pr < 0.00001	<u>M</u> Re < 0.00001	<u>M</u> Rh < 0.00001
<u>M</u> Rb < 0.00001	<u>M</u> Ru < 0.00002	<u>M</u> Sm < 0.00001	<u>M</u> Sc < 0.00010	<u>M</u> Se < 0.00008
<u>M</u> Si < 0.00001	<u>M</u> Ag < 0.00002	<u>M</u> Na < 0.00005	<u>M</u> Sr < 0.00001	<u>M</u> S < 0.00001
<u>M</u> Ta < 0.00007	<u>M</u> Te < 0.00030	<u>M</u> Tb < 0.00001	<u>M</u> Tl < 0.00001	<u>M</u> Th < 0.00001
<u>M</u> Tm < 0.00001	<u>M</u> Sn < 0.00005	<u>M</u> Ti < 0.00050	<u>M</u> W < 0.00010	<u>M</u> U < 0.00002
<u>M</u> V < 0.00002	<u>M</u> Yb < 0.00001	<u>M</u> Y < 0.00040	<u>M</u> Zn < 0.00020	<u>M</u> Zr < 0.00005

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference n - Not Checked For s - Solution Standard Element

### THERMOMETER CALIBRATION

All thermometers are NIST traceable through thermometers that are calibrated by an A2LA accredited calibration laboratory.

**Certification Date: June 18, 2026**

**Expiration Date: June 18, 2031**

**NAMES AND SIGNATURES OF CERTIFYING OFFICERS**

Certificate Prepared By: Justin Dirico, Stock Processing Supervisor

A handwritten signature in black ink on a light gray rectangular background. The signature is cursive and reads "Justin Dirico".

Certificate Approved By: Shalin Presgraves, SVS Coordinator

A handwritten signature in black ink on a light gray rectangular background. The signature is cursive and reads "Shalin Presgraves".

Certifying Officer: Paul Gaines, Chairman / Senior Technical Director

A handwritten signature in black ink on a light gray rectangular background. The signature is cursive and reads "Paul R. Gaines".