

Certificate of Analysis

0.1 ppm Mixed Metals (Ni, Ag, Cu, Cr), 1 ppm Cd in 2% Nitric Acid

Lot Number: 4404J59

Product Number: RICP5011

Manufacture Date: APR 17, 2024

Expiration Date: APR 2025

This is a multielement blend solution that was prepared volumetrically to contain the certified values reported. The uncertainty associated with the certified values is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.

The final solution concentrations are confirmed by AA, ICP, or ICP-MS.

Matrix: 2% Nitric Acid

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Nitric Acid	7697-37-2	Trace Metals

Test	Specification	Result
Appearance	Colorless liquid	Passed

Analyte	Analysis (ppm)	Solute	CAS#	Grade	NIST SRM#
Chromium (Cr)	0.10 ppm	Chromium Nitrate Nonahydrate	7789-02-8	High Purity	3112
Cadmium (Cd)	1.0 ppm	Cadmium	7440-43-9	High Purity	3108
Copper (Cu)	0.10 ppm	Copper	7440-50-8	High Purity	3114
Silver (Ag)	0.10 ppm	Silver	7440-22-4	High Purity	3151
Nickel (Ni)	0.10 ppm	Nickel	7440-02-0	High Purity	3136

This standard is guaranteed to be stable and accurate provided the product is kept tightly capped and stored under normal laboratory conditions. Balances are calibrated using NIST traceable weights whose verification of maintenance and recalibration is documented per in-house Standard Operating Procedures. Class A glassware is also calibrated and routinely rechecked per in-house Standard Operating Procedures. Trace metal analyzed acids and Trace Metals Analyzed Water are used in the manufacture of this product. Triple cleaned containers are used in the manufacture of this product.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
RICP5011-500A	500 mL natural poly	12 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Paul Brandon (04/17/2024)

Production Manager

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.