

Product Specification

Mixed ICP Standard

10,000 ppm Ca, P, K; 1000 ppm Mg, Na, S; 200 ppm Cu, Fe, Mn, Mo, Zn in 5% HNO₃

Lot Number: SAMPLE

Product Number: RMXICPSX

Manufacture Date: N/A

Expiration Date: N/A

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: 5% Nitric Acid

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Nitric Acid	7697-37-2	Trace Metals
Ammonium Sulfate	7783-20-2	High Purity
Ammonium Hydroxide	1336-21-6	Trace Metals

Test	Specification	Result	NIST SRM#
Appearance	Light colored liquid	N/A	
Sulfur (S)	990-1010 ppm	N/A	3154

Analyte	Analysis (ppm)	Solute	CAS#	Grade	NIST SRM#
Phosphorus (P)	9900-10100 ppm	Ammonium Dihydrogen Phosphate	7722-76-1	High Purity	3139
Potassium (K)	9900-10100 ppm	Potassium Nitrate	7757-79-1	High Purity	3141
Calcium (Ca)	9900-10100 ppm	Calcium Carbonate	471-34-1	High Purity	3109
Sodium (Na)	990-1010 ppm	Sodium Carbonate	497-19-8	High Purity	3152
Magnesium (Mg)	990-1010 ppm	Magnesium	7439-95-4	High Purity	3131
Molybdenum (Mo)	198-202 ppm	Ammonium Molybdate	13106-76-8	High Purity	3134
Zinc (Zn)	198-202 ppm	Zinc	7440-66-6	High Purity	3168
Copper (Cu)	198-202 ppm	Copper	7440-50-8	High Purity	3114
Manganese (Mn)	198-202 ppm	Manganese	7439-96-5	High Purity	3132
Iron (Fe)	198-202 ppm	Iron	7439-89-6	High Purity	3126

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

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

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

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

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