Arlington, TX 76012 Pocomoke City, MD 21851 Batesville, IN 47006 http://www.riccachemical.com 1-888-GO-RICCA customerservice@riccachemical.com

Product Specification

Calcium ICP-MS Standard, 1000 ppm Ca in 3% HNO₃

Product Number: MSCA1KN Lot Number: SAMPLE

Manufacture Date: N/A

Expiration Date: N/A

The certified value for this product is confirmed in independent testing by a second qualified chemist.

The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3109. All trace level elements were determined by ICP or ICP-MS.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Nitric Acid	7697-37-2	Trace Metals
Calcium Carbonate	471-34-1	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	N/A	
Assay (vs. EDTA/Eriochrome Black T)	997-1003 ppm Ca	N/A	915

I=Spectral Interference N=Not Tested

	Tra	ace Elements by	7 ICP or ICP - MS	1 Spectrar	interiorence it itol resteu
		All values reporte	ed in mg/L (ppm)		
Aluminum (Al)	N/A	Lutetium (Lu)	N/A	Terbium (Tb)	N/A
Antimony (Sb)	N/A	Magnesium (Mg)	N/A	Thallium (Tl)	N/A
Arsenic (As)	N/A	Manganese (Mn)	N/A	Thorium (Th)	N/A
Barium (Ba)	N/A	Mercury (Hg)	N/A	Thulium (Tm)	N/A
Beryllium (Be)	N/A	Molybdenum (Mo)	N/A	Tin (Sn)	N/A
Bismuth (Bi)	N/A	Neodymium (Nd)	N/A	Titanium (Ti)	N/A
Boron (B)	N/A	Nickel (Ni)	N/A	Tungsten (W)	N/A
Cadmium (Cd)	N/A	Niobium (Nb)	N/A	Uranium (U)	N/A
Cerium (Ce)	N/A	Osmium (Os)	N/A	Vanadium (V)	N/A
Cesium (Cs)	N/A	Palladium (Pd)	N/A	Ytterbium (Yb)	N/A
Chromium (Cr)	N/A	Phosphorus (P)	N/A	Yttrium (Y)	N/A
Cobalt (Co)	N/A	Platinum (Pt)	N/A	Zinc (Zn)	N/A
Copper (Cu)	N/A	Potassium (K)	N/A	Zirconium (Zr)	N/A
Dysprosium (Dy)	N/A	Praseodymium (Pr) N/A		
Erbium (Er)	N/A	Rhenium (Re)	N/A		
Europium (Eu)	N/A	Rhodium (Rh)	N/A		
Gadolinium (Gd)	N/A	Rubidium (Rb)	N/A		
Gallium (Ga)	N/A	Ruthenium (Ru)	N/A		
Germanium (Ge)	N/A	Samarium (Sm)	N/A		
Gold (Au)	N/A	Scandium (Sc)	N/A		
Hafnium (Hf)	N/A	Selenium (Se)	N/A		
Holmium (Ho)	N/A	Silicon (Si)	N/A		
Indium (In)	N/A	Silver (Ag)	N/A		
Iridium (Ir)	N/A	Sodium (Na)	N/A		
Iron (Fe)	N/A	Strontium (Sr)	N/A		
Lanthanum (La)	N/A	Sulfur (S)	N/A		
Lead (Pb)	N/A	Tantalum (Ta)	N/A		
Lithium (Li)	N/A	Tellurium (Te)	N/A		

Page 1 of 2 Version: 1.4 Lot Number: SAMPLE Product Number: MSCA1KN

Specification	Reference
	TT ((200 0)

Calcium Standard, 1000 ppm EPA (200.8)

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)
MSCA1KN-100	100 mL natural LDPE	18 months

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

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

Version: 1.4 Lot Number: SAMPLE Product Number: MSCA1KN Page 2 of 2