

Product Specification

ICP-MS Internal Standard, 100 ppm Rh in 3% HCl

Lot Number: SAMPLE

Product Number: MSR100H

Manufacture Date: N/A

Expiration Date: N/A

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value 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 concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3144. All trace level elements were determined by ICP or ICP-MS.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Hydrochloric Acid	7647-01-0	Trace Metals
Rhodium (III) Chloride Hydrate	20765-98-4	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Red-brown liquid	N/A	
Rhodium (Rh)	99.5-100.5 ppm	N/A	3144

Trace Elements by ICP or ICP - MS

I=Spectral Interference N=Not Tested

All values reported in mg/L (ppm)

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

Specification	Reference
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Silver ICPMS, 1000 ppm in HNO₃

EPA (200.8)

Silver ICPMS, 1000 ppm in HNO₃

EPA (SW-846) (6020)

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)
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MSRH100H-100

100 mL natural LDPE

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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