

Product Specification

Silver ICP-MS Standard, 1000 ppm Ag in 3% HNO₃

Lot Number: SAMPLE

Product Number: MSAG1KN

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 3151. All trace level elements were determined by ICP or ICP-MS.

| Name | CAS# | Grade |
|----------------|-----------|-------|
| Water | 7732-18-5 | |
| Nitric Acid | 7697-37-2 | |
| Silver Nitrate | 7761-88-8 | |

| Test | Specification | Result | NIST SRM# |
|---|------------------|--------|-----------|
| Appearance | Colorless liquid | N/A | |
| Assay (vs. Potassium Thiocyanate/Volhard's Indicator) | 995-1005 ppm Ag | N/A | 999 |

Trace Elements by ICP or ICP - MS

I=Spectral Interference N=Not Tested

All values reported in mg/L (ppm)

| | | | | | |
|-----------------|-----|-------------------|-----|----------------|-----|
| Aluminum (Al) | N/A | Lead (Pb) | N/A | Tantalum (Ta) | N/A |
| Antimony (Sb) | N/A | Lithium (Li) | N/A | Tellurium (Te) | N/A |
| Arsenic (As) | N/A | Lutetium (Lu) | N/A | Terbium (Tb) | N/A |
| Barium (Ba) | N/A | Magnesium (Mg) | N/A | Thallium (Tl) | N/A |
| Beryllium (Be) | N/A | Manganese (Mn) | N/A | Thorium (Th) | N/A |
| Bismuth (Bi) | N/A | Mercury (Hg) | N/A | Thulium (Tm) | N/A |
| Boron (B) | N/A | Molybdenum (Mo) | N/A | Tin (Sn) | N/A |
| Cadmium (Cd) | N/A | Neodymium (Nd) | N/A | Titanium (Ti) | N/A |
| Calcium (Ca) | N/A | Nickel (Ni) | N/A | Tungsten (W) | N/A |
| Cerium (Ce) | N/A | Niobium (Nb) | N/A | Uranium (U) | N/A |
| Cesium (Cs) | N/A | Osmium (Os) | N/A | Vanadium (V) | N/A |
| Chromium (Cr) | N/A | Palladium (Pd) | N/A | Ytterbium (Yb) | N/A |
| Cobalt (Co) | N/A | Phosphorus (P) | N/A | Yttrium (Y) | N/A |
| Copper (Cu) | N/A | Platinum (Pt) | N/A | Zinc (Zn) | N/A |
| Dysprosium (Dy) | N/A | Potassium (K) | N/A | Zirconium (Zr) | N/A |
| Erbium (Er) | N/A | Praseodymium (Pr) | N/A | | |
| Europium (Eu) | N/A | Rhenium (Re) | N/A | | |
| Gadolinium (Gd) | N/A | Rhodium (Rh) | 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 | Sodium (Na) | N/A | | |
| Iron (Fe) | N/A | Strontium (Sr) | N/A | | |
| Lanthanum (La) | N/A | Sulfur (S) | N/A | | |

| Specification | Reference |
|---------------|-----------|
|---------------|-----------|

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) |
|-------------|---------------------|---------------------------------|
|-------------|---------------------|---------------------------------|

MSAG1KN-100

100 mL amber poly

18 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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