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Product Specification

Magnesium ICP-MS Standard, 10,000 ppm Mg in 5% HNO₃

Product Number: MSMG10KN 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 3131. 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 |
| Magnesium Oxide | 1309-48-4 | High Purity |

| Test | Specification | Result | NIST SRM# |
|-------------------------------------|-------------------|--------|-----------|
| Appearance | Colorless liquid | N/A | |
| Assay (vs. EDTA/Eriochrome Black T) | 9970-10030 ppm Mg | N/A | 915 |

I=Spectral Interference N=Not Tested

| Trace Elements by ICP or ICP - MS | | | I=Spectral I | nterference N=Not Tested | |
|-----------------------------------|-----|-------------------|--------------|--------------------------|-----|
| All values reported in mg/L (ppm) | | | | | |
| Aluminum (Al) | N/A | Lithium (Li) | N/A | Terbium (Tb) | N/A |
| Antimony (Sb) | N/A | Lutetium (Lu) | 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 |
| Calcium (Ca) | N/A | Osmium (Os) | N/A | Vanadium (V) | N/A |
| Cerium (Ce) | N/A | Palladium (Pd) | N/A | Ytterbium (Yb) | N/A |
| Cesium (Cs) | N/A | Phosphorus (P) | N/A | Yttrium (Y) | N/A |
| Chromium (Cr) | N/A | Platinum (Pt) | N/A | Zinc (Zn) | N/A |
| Cobalt (Co) | N/A | Potassium (K) | N/A | Zirconium (Zr) | N/A |
| Copper (Cu) | N/A | Praseodymium (Pr) | N/A | | |
| Dysprosium (Dy) | N/A | Rhenium (Re) | N/A | | |
| Erbium (Er) | N/A | Rhodium (Rh) | N/A | | |
| Europium (Eu) | N/A | Rubidium (Rb) | N/A | | |
| Gadolinium (Gd) | N/A | Ruthenium (Ru) | N/A | | |
| Gallium (Ga) | N/A | Samarium (Sm) | N/A | | |
| Germanium (Ge) | N/A | Scandium (Sc) | N/A | | |
| Gold (Au) | N/A | Selenium (Se) | N/A | | |
| Hafnium (Hf) | N/A | Silicon (Si) | N/A | | |
| Holmium (Ho) | N/A | Silver (Ag) | N/A | | |
| Indium (In) | N/A | Sodium (Na) | N/A | | |
| Iridium (Ir) | N/A | Strontium (Sr) | N/A | | |
| Iron (Fe) | N/A | Sulfur (S) | N/A | | |
| Lanthanum (La) | N/A | Tantalum (Ta) | N/A | | |
| Lead (Pb) | N/A | Tellurium (Te) | N/A | | |

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

Magnesium ICP Standard, 1 mL = 10 mg Mg (10,000 ppm Mg) 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) | |
|--------------|---------------------|---------------------------------|--|
| MSMG10KN-100 | 100 mL natural LDPE | 18 months | |

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

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