

# Product Specification

## Barium ICP Standard, 1000 ppm Ba in 3% HCl

**Lot Number:** SAMPLE

**Product Number:** PBA1KH

**Manufacture Date:** N/A

**Expiration Date:** N/A

The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3104. 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    |
| Barium Carbonate  | 513-77-9  | High Purity     |

| Test                            | Specification    | Result | NIST SRM# |
|---------------------------------|------------------|--------|-----------|
| Appearance                      | Colorless liquid | N/A    |           |
| Assay (vs. EDTA/Metalphthalein) | 995-1005 ppm Ba  | N/A    | 915       |

### Trace Elements by ICP or ICP - MS

I=Spectral Interference N=Not Tested

All values reported in mg/L (ppm)

|                 |     |                   |     |                |     |
|-----------------|-----|-------------------|-----|----------------|-----|
| Aluminum (Al)   | N/A | Magnesium (Mg)    | N/A | Thorium (Th)   | N/A |
| Antimony (Sb)   | N/A | Manganese (Mn)    | N/A | Thulium (Tm)   | N/A |
| Arsenic (As)    | N/A | Mercury (Hg)      | N/A | Tin (Sn)       | N/A |
| Beryllium (Be)  | N/A | Molybdenum (Mo)   | N/A | Titanium (Ti)  | N/A |
| Bismuth (Bi)    | N/A | Neodymium (Nd)    | N/A | Tungsten (W)   | N/A |
| Boron (B)       | N/A | Nickel (Ni)       | N/A | Uranium (U)    | N/A |
| Cadmium (Cd)    | N/A | Niobium (Nb)      | N/A | Vanadium (V)   | N/A |
| Calcium (Ca)    | N/A | Osmium (Os)       | N/A | Ytterbium (Yb) | N/A |
| Cerium (Ce)     | N/A | Palladium (Pd)    | N/A | Yttrium (Y)    | N/A |
| Cesium (Cs)     | N/A | Phosphorus (P)    | N/A | Zinc (Zn)      | N/A |
| Chromium (Cr)   | N/A | Platinum (Pt)     | N/A | Zirconium (Zr) | N/A |
| Cobalt (Co)     | N/A | Potassium (K)     | 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 |                |     |
| Lithium (Li)    | N/A | Terbium (Tb)      | N/A |                |     |
| Lutetium (Lu)   | N/A | Thallium (Tl)     | N/A |                |     |

This standard is guaranteed to be stable and accurate provided the product is kept tightly capped and stored under normal laboratory conditions. Balances are calibrated using NIST traceable weights whose verification of maintenance and recalibration is documented per in-house Standard Operating Procedures. Class A glassware is also calibrated and routinely rechecked per in-house Standard Operating Procedures. Trace metal analyzed acids and Trace Metals Analyzed Water are used in the manufacture of this product. Triple cleaned containers are used in the manufacture of this product.

| Part Number | Size / Package Type | Shelf Life (Unopened Container) |
|-------------|---------------------|---------------------------------|
| PBA1KH-500  | 500 mL natural poly | 18 months                       |

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