

## SPECIFICATION

### NITRIC ACID HIGH PURITY SOLUTION FOR TRACE ANALYSIS

**Product No.:** RHPA102  
**Colour:** < 10 APHA  
**Chloride (Cl):** < 0.2ppm  
**Total Sulphur (S):** < 0.3ppm  
**Total Phosphorous (P):** < 0.1ppm  
**Assay:** 67 - 70%

**Trace Impurities (ppb):**

Element	Concentration (Max.)	Typical Value	Element	Concentration (Max.)	Typical Value
Aluminium (Al)	1.0	<0.5	Neodymium (Nd)	0.5	<0.1
Antimony (Sb)	1.0	<0.1	Nickel (Ni)	1.0	<0.1
Arsenic (As)	1.0	<0.1	Niobium (Nb)	0.5	<0.1
Barium (Ba)	1.0	<0.1	Palladium (Pd)	0.5	<0.1
Beryllium (Be)	1.0	<0.1	Platinum (Pt)	0.5	<0.1
Bismuth (Bi)	1.0	<0.1	Potassium (K)	1.0	<0.2
Boron (B)	1.0	<0.5	Praseodymium (Pr)	0.5	<0.1
Cadmium (Cd)	1.0	<0.1	Rhenium (Re)	0.5	<0.1
Calcium (Ca)	1.0	<0.5	Rhodium (Rh)	0.5	<0.1
Cerium (Ce)	0.5	<0.1	Rubidium (Rb)	0.5	<0.1
Cesium (Cs)	0.5	<0.1	Ruthenium (Ru)	0.5	<0.1
Chromium (Cr)	1.0	<0.5	Samarium (Sm)	0.5	<0.1
Cobalt (Co)	1.0	<0.1	Scandium (Sc)	0.5	<0.1
Copper (Cu)	1.0	<0.1	Selenium (Se)	1.0	<0.1
Dysprosium (Dy)	0.5	<0.1	Silver (Ag)	1.0	<0.1
Erbium (Er)	0.5	<0.1	Sodium (Na)	1.0	<0.2
Europium (Eu)	0.5	<0.1	Strontium (Sr)	1.0	<0.1
Gadolinium (Gd)	0.5	<0.1	Tantalum (Ta)	1.0	<0.1
Gallium (Ga)	0.5	<0.1	Tellurium (Te)	0.5	<0.1
Germanium (Ge)	0.5	<0.1	Terbium (Tb)	0.5	<0.1
Gold (Au)	0.5	<0.2	Thallium (Tl)	0.5	<0.1
Hafnium (Hf)	0.5	<0.1	Thorium (Th)	1.0	<0.1
Holmium (Ho)	0.5	<0.1	Thulium (Tm)	0.5	<0.1
Indium (In)	0.5	<0.1	Tin (Sn)	1.0	<0.1
Iron (Fe)	1.0	<0.5	Titanium (Ti)	1.0	<0.1
Lanthanum (La)	0.5	<0.1	Tungsten (W)	0.5	<0.1
Lead (Pb)	1.0	<0.1	Uranium (U)	1.0	<0.1
Lithium (Li)	1.0	<0.1	Vanadium (V)	1.0	<0.1
Lutetium (Lu)	0.5	<0.1	Ytterbium (Yb)	0.5	<0.1
Magnesium (Mg)	1.0	<0.2	Yttrium (Y)	0.5	<0.1
Manganese (Mn)	1.0	<0.1	Zinc (Zn)	1.0	<0.2
Mercury (Hg)	1.0	<0.2	Zirconium (Zr)	1.0	<0.1
Molybdenum (Mo)	1.0	<0.1			

The Element concentrations are at the point of bottling.  
 Concentrations of some elements in particular, Ca, Si, K, Na, B, Al, Mg & Mn may increase due to storage in glass bottles