



VWR ANALYTICAL

## Product Specification

**Catalog Number:** 87003-251 | 87003-253  
**Catalog Description:** Hydrochloric acid  
**Grade:** BDH Aristar® Plus  
**Date Current Specification Set:** 01/2008

*All batches of this product manufactured after this date are tested to this specification. A new certificate will be published on the web in the unlikely event of specification changes.*

Characteristics	Specifications
Assay	34 - 37 %
Color	max. 10 APHA
Aluminum (Al)	max. 1 ppb
Antimony (Sb)	max. 0.5 ppb
Arsenic (As)	max. 0.5 ppb
Barium (Ba)	max. 0.1 ppb
Beryllium (Be)	max. 0.1 ppb
Bismuth (Bi)	max. 0.1 ppb
Boron (B)	max. 1 ppb
Cadmium (Cd)	max. 0.1 ppb
Calcium (Ca)	max. 1 ppb
Cerium (Ce)	max. 0.1 ppb
Cesium (Cs)	max. 0.1 ppb
Chromium (Cr)	max. 0.5 ppb
Cobalt (Co)	max. 0.1 ppb
Copper (Cu)	max. 0.5 ppb
Dysprosium (Dy)	max. 0.1 ppb
Erbium (Er)	max. 0.1 ppb
Europium (Eu)	max. 0.1 ppb
Gadolinium (Gd)	max. 0.1 ppb
Gallium (Ga)	max. 0.1 ppb
Gold (Au)	max. 0.5 ppb
Hafnium (Hf)	max. 0.1 ppb
Holmium (Ho)	max. 0.1 ppb
Indium (In)	max. 0.1 ppb
Iron (Fe)	max. 1 ppb
Lanthanum (La)	max. 0.1 ppb
Lead (Pb)	max. 0.1 ppb
Lithium (Li)	max. 0.1 ppb
Lutetium (Lu)	max. 0.1 ppb
Magnesium (Mg)	max. 0.5 ppb
Manganese (Mn)	max. 0.1 ppb
Mercury (Hg)	max. 0.1 ppb

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Characteristics	Specifications
Molybdenum (Mo)	max. 0.1 ppb
Neodymium (Nd)	max. 0.1 ppb
Nickel (Ni)	max. 0.5 ppb
Niobium (Nb)	max. 0.1 ppb
Palladium (Pd)	Information Only
Platinum (Pt)	Information Only
Potassium (K)	max. 1 ppb
Praseodymium (Pr)	max. 0.1 ppb
Rhenium (Re)	max. 0.1 ppb
Rhodium (Rh)	max. 0.1 ppb
Rubidium (Rb)	max. 0.1 ppb
Ruthenium (Ru)	max. 0.1 ppb
Samarium (Sm)	max. 0.1 ppb
Scandium (Sc)	max. 0.1 ppb
Selenium (Se)	max. 1 ppb
Silver (Ag)	max. 1 ppb
Sodium (Na)	max. 1 ppb
Strontium (Sr)	max. 0.1 ppb
Tantalum (Ta)	Information Only
Tellurium (Te)	max. 0.1 ppb
Terbium (Tb)	max. 0.1 ppb
Thallium (Tl)	max. 0.1 ppb
Thorium (Th)	max. 0.1 ppb
Thulium (Tm)	max. 0.1 ppb
Tin (Sn)	max. 0.5 ppb
Titanium (Ti)	max. 0.5 ppb
Tungsten (W)	max. 0.1 ppb
Uranium (U)	max. 0.1 ppb
Vanadium (V)	max. 0.5 ppb
Ytterbium (Yb)	max. 0.1 ppb
Yttrium (Y)	max. 0.1 ppb
Zinc (Zn)	max. 1 ppb
Zirconium (Zr)	max. 0.1 ppb



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Characteristics	Specifications
Bromide (Br <sup>-</sup> )	max. 10 ppm
Free Chlorine (Cl <sub>2</sub> )	max. 0.5 ppm
Total Phosphorus (P)	max. 0.01 ppm
Total Sulfur (S)	max. 0.3 ppm

Signed on behalf of VWR:  
*Greg Henson*  
Quality Assurance Manager