

Hydrochloric Acid  
ULTREX® II Ultrapure Reagent



Material No.: 6900-05

Batch No.: 4221070

Manufactured Date: 2021-08-10

Expiration Date: 2024-08-10

Revision No.: 0

# Certificate of Analysis

Test	Specification	Result
Assay (HCl)(w/w)	32 - 35 %	34 %
Trace Impurities - Aluminum (Al)	≤ 20 ppt	< 2 ppt
Trace Impurities - Antimony (Sb)	≤ 20 ppt	< 1 ppt
Trace Impurities - Arsenic (As)	≤ 50 ppt	< 1 ppt
Trace Impurities - Barium (Ba)	≤ 10 ppt	< 1 ppt
Trace Impurities - Beryllium (Be)	≤ 10 ppt	< 1 ppt
Trace Impurities - Bismuth (Bi)	≤ 10 ppt	< 1 ppt
Trace Impurities - Boron (B)	≤ 100 ppt	< 20 ppt
Trace Impurities - Cadmium (Cd)	≤ 10 ppt	< 1 ppt
Trace Impurities - Calcium (Ca)	≤ 10 ppt	< 10 ppt
Trace Impurities - Cerium (Ce)	≤ 10 ppt	< 1 ppt
Trace Impurities - Cesium (Cs)	≤ 10 ppt	< 1 ppt
Trace Impurities - Chromium (Cr)	≤ 10 ppt	< 1 ppt
Trace Impurities - Cobalt (Co)	≤ 10 ppt	< 1 ppt
Trace Impurities - Copper (Cu)	≤ 10 ppt	< 1 ppt
Trace Impurities - Dysprosium (Dy)	≤ 1 ppt	< 1 ppt
Trace Impurities - Erbium (Er)	≤ 1 ppt	< 1 ppt
Trace Impurities - Europium (Eu)	≤ 1 ppt	< 1 ppt
Trace Impurities - Gadolinium (Gd)	≤ 1 ppt	< 1 ppt
Trace Impurities - Gallium (Ga)	≤ 10 ppt	< 1 ppt
Trace Impurities - Gold (Au)	≤ 50 ppt	< 1 ppt
Trace Impurities - Hafnium (Hf)	≤ 10 ppt	< 1 ppt
Trace Impurities - Holmium (Ho)	≤ 1 ppt	< 1 ppt
Trace Impurities - Indium (In)	≤ 1 ppt	< 1 ppt
Trace Impurities - Iron (Fe)	≤ 10 ppt	< 1 ppt
Trace Impurities - Lanthanum (La)	≤ 1 ppt	< 1 ppt
Trace Impurities - Lead (Pb)	≤ 10 ppt	< 1 ppt
Trace Impurities - Lithium (Li)	≤ 10 ppt	< 1 ppt

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For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

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Trace Impurities - Lutetium (Lu)	≤ 10 ppt	< 1 ppt
Trace Impurities - Magnesium (Mg)	≤ 10 ppt	< 1 ppt
Trace Impurities - Manganese (Mn)	≤ 10 ppt	< 1 ppt
Trace Impurities - Mercury (Hg)	≤ 50 ppt	< 20 ppt
Trace Impurities - Molybdenum (Mo)	≤ 10 ppt	< 1 ppt
Trace Impurities - Neodymium (Nd)	≤ 1 ppt	< 1 ppt
Trace Impurities - Nickel (Ni)	≤ 20 ppt	< 2 ppt
Trace Impurities - Niobium (Nb)	≤ 1 ppt	< 1 ppt
Trace Impurities - Palladium (Pd), For Information Only		< 0.1 μmol/l
Trace Impurities - Platinum (Pt), For Information Only		< 1 ppt
Trace Impurities - Potassium (K)	≤ 10 ppt	< 2 ppt
Trace Impurities - Praseodymium (Pr)	≤ 1 ppt	< 1 ppt
Trace Impurities - Rhenium (Re)	≤ 10 ppt	< 1 ppt
Trace Impurities - Rhodium (Rh)	≤ 10 ppt	< 1 ppt
Trace Impurities - Rubidium (Rb)	≤ 10 ppt	< 1 ppt
Trace Impurities - Ruthenium (Ru)	≤ 10 ppt	< 1 ppt
Trace Impurities - Samarium (Sm)	≤ 1 ppt	< 1 ppt
Trace Impurities - Scandium (Sc)	≤ 10 ppt	< 1 ppt
Trace Impurities - Selenium (Se), For Information Only		< 20 ppt
Trace Impurities - Silver (Ag)	≤ 10 ppt	< 1 ppt
Trace Impurities - Sodium (Na)	≤ 10 ppt	< 5 ppt
Trace Impurities - Strontium (Sr)	≤ 10 ppt	< 1 ppt
Trace Impurities - Tantalum (Ta), For Information Only		< 1 ppt
Trace Impurities - Tellurium (Te)	≤ 1 ppt	< 1 ppt
Trace Impurities - Terbium (Tb)	≤ 1 ppt	< 1 ppt
Trace Impurities - Thallium (Tl)	≤ 10 ppt	< 1 ppt
Trace Impurities - Thorium (Th)	≤ 1 ppt	< 1 ppt
Trace Impurities - Thulium (Tm)	≤ 1 ppt	< 1 ppt
Trace Impurities - Tin (Sn)	≤ 20 ppt	< 1 ppt
Trace Impurities - Titanium (Ti)	≤ 10 ppt	< 1 ppt
Trace Impurities - Tungsten (W)	≤ 10 ppt	< 1 ppt
Trace Impurities - Uranium (U)	≤ 1 ppt	< 1 ppt
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Trace Impurities - Vanadium (V)	≤ 10 ppt	< 1 ppt
Trace Impurities - Ytterbium (Yb)	≤ 1 ppt	< 1 ppt
Trace Impurities - Yttrium (Y)	≤ 1 ppt	< 1 ppt
Trace Impurities - Zinc (Zn)	≤ 10 ppt	< 1 ppt
Trace Impurities - Zirconium (Zr)	≤ 10 ppt	< 1 ppt

For Laboratory, Research, or Manufacturing Use  
Certificate Provided Reports Actual Lot Analysis  
Storage Condition: Store below 25 °C.  
Country of Origin: Canada  
Packaging Site: Paris Mfg Ctr & DC

  
Jamie Ethier  
Vice President Global Quality

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