



**ChemPure* Brand
Chemicals**

Product Code: CP-M1494S
Lot #: 2017061526

Certificate Of Analysis

...Pure Quality

Chemical Name: **Hydrochloric Acid**, High Purity, Trace Metals Grade

F.W.: **36.4600**

CAS: **7647-01-0**

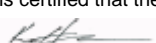
Chemical Formula: HCl

Density: **1.1800 kg/L**

Analytical Results		
Item	Specifications	Analysis
Chromium (Cr)	100 ppb Max	<50 ppb
Clarity of Solution	Free from suspended matter/sediment	Passes Test
Cobalt (Co)	50 ppb Max	<5 ppb
Color (APHA)	10 max.	<10
Copper (Cu)	50 ppb Max	<5 ppb
Free Bromine or Chlorine	To pass test (0.0001% max.)	Passes Test (<0.0001%)
Free Chlorine (Cl ₂)	1.0 ppm Max	<0.5 ppm
Gallium (Ga)	100 ppb Max	<20 ppb
Germanium (Ge)	100 ppb Max	<20 ppb
Gold (Au)	100 ppb Max	<20 ppb
Heavy Metals (as Pb)	0.0001% max.	<0.000001%
Identification FCC	To pass test	Passes Test
Identification NF	To pass test	Passes Test
Aluminum (Al)	300 ppb Max	<100 ppb
Ammonium (NH ₄)	0.0003% max.	<0.0003%
Iridium (Ir)	2 ppm Max	<2 ppm
Iron (Fe)	200 ppb Max	<50 ppb
Lead (Pb)	100 ppb Max	<25 ppb
Lithium (Li)	100 ppb Max	<50 ppb
Magnesium (Mg)	200 ppb Max	<50 ppb
Antimony (Sb)	4 ppb Max	<4 ppb
Manganese (Mn)	100 ppb Max	<5 ppb
Manufacture Date	Record Actual	06/08/2017
Appearance	Clear, colorless fuming liquid	Passes Test
Mercury (Hg)	1 ppb Max	<1 ppb
Appearance (EP)	To pass test	Passes Test
Molybdenum (Mo)	50 ppb Max	<10 ppb
Nickel (Ni)	50 ppb Max	<10 ppb

Remarks:

It is certified that the above copy is a true copy of the actual lot analysis.


Kevin Hansen
Quality Assurance Manager

Disclaimer: To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication. However, nothing herein shall constitute any express or implied warranty of merchantability or fitness for a particular purpose. It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose.



**ChemPure* Brand
Chemicals**

Product Code: CP-M1494S
Lot #: 2017061526

Certificate Of Analysis

...Pure Quality

Chemical Name: **Hydrochloric Acid**, High Purity, Trace Metals Grade

F.W.: **36.4600**

CAS: **7647-01-0**


Chemical Formula: HCl

Density: **1.1800 kg/L**

Analytical Results		
Item	Specifications	Analysis
Nonvolatile residue	0.5% Max	<0.5%
Arsenic (As)	4 ppb max.	<1 ppb
Oxidizing substances (as Cl ₂)	0.003% Max	<0.00001%
Palladium (Pd)	2 ppm Max	<2 ppm
Phosphate (PO ₄)	50 ppb Max	<50 ppb
Platinum (Pt)	2 ppm Max	<2 ppm
Potassium (K)	300 ppb Max	<100 ppb
Reducing Substances	To pass test	Passes Test
Residue After Ignition	0.0005% max.	<0.0005%
Rhodium (Rh)	2 ppm Max	<2 ppm
Ruthenium (Ru)	2 ppm Max	<2 ppm
Silicon (Si)	300 ppb Max	<100 ppb
Silver (Ag)	50 ppb Max	<50 ppb
Sodium (Na)	300 ppb Max	<100 ppb
Specific Gravity at 60°F	Record only (approx. 1.17-1.20)	1.19
Strontium (Sr)	100 ppb Max	<20 ppb
Sulfate (SO ₄)	0.0001% max.	<0.00001%
Sulfite (SO ₃)	0.0001% max.	<0.00001%
Tantalum (Ta)	50 ppb Max	<10 ppb
Thallium (Tl)	50 ppb Max	<20 ppb
Tin (Sn)	300 ppb Max	<50 ppb
Titanium (Ti)	300 ppb Max	<10 ppb
Vanadium (V)	50 ppb Max	<10 ppb
Zinc (Zn)	100 ppb Max	<50 ppb
Zirconium (Zr)	50 ppb Max	<10 ppb
Hydrazine	0.1 ppm Max	<0.001 ppm
Organic Compounds - Total non-fluorine containing organic compounds	5 mg/kg Max	<0.001 mg/kg

Remarks:

It is certified that the above copy is a true copy of the actual lot analysis.


Kevin Hansen
Quality Assurance Manager

Disclaimer: To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication. However, nothing herein shall constitute any express or implied warranty of merchantability or fitness for a particular purpose. It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose.



**ChemPure* Brand
Chemicals**

Product Code: CP-M1494S
Lot #: 2017061526

Certificate Of Analysis

...Pure Quality

Chemical Name: **Hydrochloric Acid**, High Purity, Trace Metals Grade

F.W.: **36.4600**

CAS: **7647-01-0**

Chemical Formula: HCl

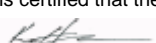
Density: **1.1800 kg/L**

Analytical Results		
Item	Specifications	Analysis
Organic Compounds - Benzene	0.05 mg/kg Max	<0.001 mg/kg
Organic Compounds - Total fluorinated organic compounds	0.0025% Max	<0.0000001%
Assay (HCl)	36.5-38.0%	37.3%
Assay (HCl) Be'	22.7 deg Be' min.	>22.7°Be
Barium (Ba)	100 ppb Max	<20 ppb
Beryllium (Be)	50 ppb Max	<10 ppb
Bismuth (Bi)	50 ppb Max	<20 ppb
Boron (B)	50 ppb Max	<20 ppb
Bromide (Br)	50 ppm Max	<50 ppm
Bromide or Iodide	To pass test	Passes Test
Cadmium (Cd)	100 ppb Max	<5 ppb
Calcium (Ca)	300 ppb Max	<100 ppb

Manufactured Date: 06/08/2017
Re-test Date: 06/07/2020

Remarks:

It is certified that the above copy is a true copy of the actual lot analysis.


Kevin Hansen
Quality Assurance Manager

Disclaimer: To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication. However, nothing herein shall constitute any express or implied warranty of merchantability or fitness for a particular purpose. It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose.