

Shanghai Aladdin Biochemical Technology Co., LTD
809 Chuhua Branch Road, Fengxian District, Shanghai 201400, China

Certificate of Analysis

Date of Testing: 2022-03-11 09:51:53
Date of Next Testing: 2023-03-11 09:51:53
Product Name: **Hydrofluoric acid**
CAS Number: 7664-39-3
Specifications & Purity: semiconductor grade , 49wt. % in H₂O , ≥99.99998%metals basis
Lot #: C2208230
SKU #: **H116237**
Analysis: **074073**

Parameter	Limit Values	Result
Tin(Sn)	0-20 (ppb)	0.00500 ppb
Aurum(Au)	0-20 (ppb)	0.15000 ppb
Cadmium(Cd)	0-0.05 (ppm)	0.00001 ppm
Magnesium(Mg)	0-20 (ppb)	0.56400 ppb
Bismuth(Bi)	0-20 (ppb)	0.25300 ppb
Barium(Ba)	0-0.1 (ppm)	0.00016 ppm
Platinum(Pt)	0-100 (ppb)	0.06400 ppb
(Pb)Lead	0-0.05 (ppm)	0.00060 ppm
(As)Arsenic	0-50 (ppb)	0.06600 ppb
Phosphate(PO ₄)	0-1000 (ppb)	350.00000 ppb
Color scale	0-10 (APHA)	8.00000 APHA
Manganese(Mn)	0-0.02 (ppm)	0.00008 ppm
Lithium(Li)	0-20 (ppb)	0.00500 ppb
Boron(B)	0-20 (ppb)	0.05700 ppb
Sodium(Na)	0-0.2 (ppm)	0.00242 ppm
(NO ₃)Nitrate	0-3000 (ppb)	1500.00000 ppb
Titanium(Ti)	0-100 (ppb)	0.14800 ppb
Nickel(Ni)	0-0.05 (ppm)	0.00004 ppm
Zinc(Zn)	0-0.05 (ppm)	0.00095 ppm
Chloride(Cl ⁻)	0-5000 (ppb)	1500.00000 ppb
Chromium(Cr)	0-20 (ppb)	0.19100 ppb
Copper(Cu)	0-20 (ppb)	0.02900 ppb
Molybdenum(Mo)	0-0.1 (ppm)	0.00002 ppm
Gallium(Ga)	0-20 (ppb)	0.00500 ppb
Assay	48-50 (%)	49.00000 %
Sulfate(SO ₄ ²⁻)	0-5 (ppm)	0.80000 ppm
Cobalt(Co)	0-20 (ppb)	0.01100 ppb

Shanghai Aladdin Biochemical Technology Co., LTD
809 Chuhua Branch Road, Fengxian District, Shanghai 201400, China

Parameter	Limit Values	Result
Iron(Fe)	0-100 (ppb)	2.99700 ppb

A handwritten signature in black ink that reads "John.Su".

John Su
QA & QC Manager