

CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by Intertek Global
 Certificate Number: CERT-0120633

Catalogue Number	A513
Lot Number	24023671
Description	HYDROFLUORIC ACID, TRACE METAL GRADE
CAS Number	7664-39-3
Quality Test/Release Date	03/Sep/2025
Suggested retest date	14/Jul/2028
Country of Origin	United States
Declaration of Origin	Synthetic
BSE/TSE	This material is produced using a synthetic process and the production equipment does not come into contact with anything of animal origin. Therefore, there is no potential for BSE or TSE to be present in the product.

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
ALUMINUM	ppb	<= 1.0	<1
ANTIMONY (Sb)	ppb	<= 0.2	<0.2
ARSENIC (As)	ppb	<= 0.5	<0.5
ASSAY	%	Inclusive Between 47 - 51	50
BARIUM (Ba)	ppb	<= 0.1	<0.1
BERYLLIUM (Be)	ppb	<= 0.1	<0.1
BISMUTH (Bi)	ppb	<= 0.1	<0.1
BORON (B)	ppb	<= 1	<1
CADMIUM (Cd)	ppb	<= 0.1	<0.1
CALCIUM (Ca)	ppb	<= 1	<1
CERIUM (Ce)	ppb	<= 0.1	<0.1
CESIUM (Cs)	ppb	<= 0.1	<0.1
CHLORIDE	ppm	<= 4	<4
CHROMIUM (Cr)	ppb	<= 1	<1
COBALT (Co)	ppb	<= 0.1	<0.1
COLOR	APHA	<= 10	<10
COPPER (Cu)	ppb	<= 0.5	<0.5
DYSPROSIUM (Dy)	ppb	<= 0.1	<0.1
ERBIUM (Er)	ppb	<= 0.1	<0.1
EUROPIUM (Eu)	ppb	<= 0.1	<0.1
FLUOSILICIC ACID	ppm	<= 20	<20
GADOLINIUM (Gd)	ppb	<= 0.1	<0.1
GALLIUM (Ga)	ppb	<= 0.1	<0.1
GERMANIUM (Ge)	ppb	<= 0.1	<0.1
GOLD (Au)	ppb	<= 0.2	<0.2
HAFNIUM (Hf)	ppb	<= 0.1	<0.1
HOLMIUM (Ho)	ppb	<= 0.1	<0.1
INDIUM (In)	ppb	<= 0.1	<0.1
IRON (Fe)	ppb	<= 1	<1

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.

LANTHANUM (La)	ppb	<= 0.1	<0.1
LEAD (Pb)	ppb	<= 0.1	<0.1
LITHIUM (Li)	ppb	<= 0.1	<0.1
LUTETIUM (Lu)	ppb	<= 0.1	<0.1
MAGNESIUM (Mg)	ppb	<= 1	<1
MANGANESE (Mn)	ppb	<= 0.1	<0.1
MERCURY (Hg)	ppb	<= 1	<1
MOLYBDENUM (Mo)	ppb	<= 0.1	<0.1
NEODYMIUM (Nd)	ppb	<= 0.1	<0.1
NICKEL (Ni)	ppb	<= 0.5	<0.5
NIOBIUM (Nb)	ppb	<= 0.1	<0.1
PALLADIUM (Pd)	ppb	<= 0.2	<0.2
PHOSPHOROUS (P)	ppm	<= 0.05	<0.05
PLATINUM (Pt)	ppb	<= 0.2	<0.2
POTASSIUM (K)	ppb	<= 1	<1
PRASEODYMIUM (Pr)	ppb	<= 0.1	<0.1
RHENIUM (Re)	ppb	<= 0.1	<0.1
RHODIUM (Rh)	ppb	<= 0.1	<0.1
RUBIDIUM (Rb)	ppb	<= 0.1	<0.1
RUTHENIUM (Ru)	ppb	<= 0.1	<0.1
SAMARIUM (Sm)	ppb	<= 0.1	<0.1
SCANDIUM (Sc)	ppb	<= 0.1	<0.1
SELENIUM (Se)	ppb	<= 1	<1
SILVER (Ag)	ppb	<= 0.5	<0.5
SODIUM (Na)	ppb	<= 1	<1
STRONTIUM (Sr)	ppb	<= 0.1	<0.1
TANTALUM (Ta)	ppb		<1
TELLURIUM (Te)	ppb	<= 0.1	<0.1
TERBIUM (Tb)	ppb	<= 0.1	<0.1
THALLIUM (Tl)	ppb	<= 0.1	<0.1
THORIUM (Th)	ppb	<= 0.1	<0.1
THULIUM (Tm)	ppb	<= 0.1	<0.1
TIN (Sn)	ppb	<= 0.5	<0.5
TITANIUM (Ti)	ppb	<= 1	<1
TOTAL SULFUR	ppm	<= 0.1	<0.1
TUNGSTEN (W)	ppb	<= 0.5	<0.5
URANIUM (U)	ppb	<= 0.1	<0.1
VANADIUM (V)	ppb	<= 0.1	<0.1
YTTERBIUM (Yb)	ppb	<= 0.1	<0.1
YTTRIUM (Y)	ppb	<= 0.1	<0.1
ZINC (Zn)	ppb	<= 1	<1
ZIRCONIUM (Zr)	ppb	<= 0.1	<0.1



Harout Sahagian
Manager, QC • Laboratory Products Group

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Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third-party data or information associated with the product. Products are for research use or further manufacturing. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

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