



## **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 A507 Lot Number 24019189

Description ACETIC ACID, TRACE METAL GRADE

CAS Number 64-19-7
Quality Test/Release Date 20/Jun/2025
Suggested retest date 19/Feb/2028
Country of Origin United States
Declaration of Origin Synthetic

This material is produced using a synthetic process and the prodcution equipment

BSE/TSE 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.

APPEARANCE         REPORT         Clear, colorless liquid           ALUMINUM         ppb         <= 1         <1           ANTIMONY (Sb)         ppb         <= 0.5         <0.5           ARSENIC (As)         ppb         <= 0.5         <0.5           ARSENIC (As)         %         >= 99.0         100           BARIUM (Ba)         ppb         <= 0.5         <0.5           BERYLLIUM (Be)         ppb         <= 0.1         <0.1           BISMUTH (BI)         ppb         <= 0.1         <0.1           CADMIUM (Cd)         ppb         <= 0.5         <0.5           CALCIUM (Ca)         ppb         <= 0.1         <1           CARCIUM (Ce)         ppb         <= 0.1         <0.1           CERIUM (Ce)         ppb         <= 0.1         <0.1           CERIUM (Ce)         ppm         <= 1         <1           CHLORDIE         ppm         <= 1         <1           CHORDIUM (Ch)         ppb         <= 0.1         <0.1           COPALT (Co)         ppb         <= 0.1         <0.1           COPER (Cu)         ppb         <= 0.5         <0.5           DYSPROSIUM (Dy)         ppb         <= 0.1         <0	Result Name	Units	Specifications	Test Value
ANTIMONY (Sb)	APPEARANCE		REPORT	Clear, colorless liquid
ARSENIC (As)         ppb         <= 0.5         <0.5           ASSAY         %         >= 99.0         100           BARIUM (Ba)         ppb         <= 0.5         <0.5           BERYLLIUM (Be)         ppb         <= 0.1         <0.1           BISMUTH (BI)         ppb         <= 0.1         <0.1           CADMIUM (Cd)         ppb         <= 0.1         <0.1           CALCIUM (Ca)         ppb         <= 0.1         <0.1           CERIUM (Ce)         ppb         <= 0.1         <0.1           CERIUM (CS)         ppb         <= 0.1         <0.1           CHLORIDE         ppm         <= 1         <1           CHROMIUM (Cr)         ppb         <= 0.1         <1           CHROMIUM (Cr)         ppb         <= 0.1         <1           COBALT (Co)         ppb         <= 0.1         <1           COLOR         APHA         <= 10         <1           COPPER (Cu)         ppb         <= 0.5         <0.5           DYSPROSIUM (Dy)         ppb         <= 0.1         <0.1           ERBIUM (Er)         ppb         <= 0.1         <0.1           GALLIUM (Ga)         ppb         <= 0.1         <0.1 <td>ALUMINUM</td> <td>ppb</td> <td>&lt;= 1</td> <td>&lt;1</td>	ALUMINUM	ppb	<= 1	<1
ASSAY	ANTIMONY (Sb)	ppb	<= 0.5	<0.5
BARIUM (Ba)         ppb         <= 0.5	ARSENIC (As)	ppb	<= 0.5	<0.5
BERYLLIUM (Be)         ppb         <= 0.1         <0.1           BISMUTH (Bi)         ppb         <= 0.1	ASSAY	%	>= 99.0	100
BISMUTH (Bi)         ppb         <= 0.1         <0.1           CADMIUM (Cd)         ppb         <= 0.5	BARIUM (Ba)	ppb	<= 0.5	<0.5
CADMIUM (Cd)         ppb         <= 0.5         <0.5           CALCIUM (Ca)         ppb         <= 1	BERYLLIUM (Be)	ppb	<= 0.1	<0.1
CALCIUM (Ca)         ppb         <= 1         <1           CERIUM (Ce)         ppb         <= 0.1	BISMUTH (Bi)	ppb	<= 0.1	<0.1
CERIUM (Ce)         ppb         <= 0.1         <0.1           CESIUM (Cs)         ppb         <= 0.1	CADMIUM (Cd)	ppb	<= 0.5	<0.5
CESIUM (Cs)         ppb         <= 0.1         <0.1           CHLORIDE         ppm         <= 1	CALCIUM (Ca)	ppb	<= 1	<1
CHLORIDE         ppm         <= 1         <1           CHROMIUM (Cr)         ppb         <= 1	CERIUM (Ce)	ppb	<= 0.1	<0.1
CHROMIUM (Cr)         ppb         <= 1         <1           COBALT (Co)         ppb         <= 0.1	CESIUM (Cs)	ppb	<= 0.1	<0.1
COBALT (Co)	CHLORIDE	ppm	<= 1	<1
COLOR         APHA         <= 10         <10           COPPER (Cu)         ppb         <= 0.5	CHROMIUM (Cr)	ppb	<= 1	<1
COPPER (Cu)         ppb         <= 0.5         <0.5           DYSPROSIUM (Dy)         ppb         <= 0.1	COBALT (Co)	ppb	<= 0.1	<0.1
DYSPROSIUM (Dy)         ppb         <= 0.1         <0.1           ERBIUM (Er)         ppb         <= 0.1	COLOR	APHA	<= 10	<10
ERBIUM (Er)         ppb         <= 0.1         <0.1           EUROPIUM (Eu)         ppb         <= 0.1	COPPER (Cu)	ppb	<= 0.5	<0.5
EUROPIUM (Eu)       ppb       <= 0.1	DYSPROSIUM (Dy)	ppb	<= 0.1	<0.1
GADOLINIUM (Gd)	ERBIUM (Er)	ppb	<= 0.1	<0.1
GALLIUM (Ga)	EUROPIUM (Eu)	ppb	<= 0.1	<0.1
GERMANIUM (Ge)       ppb       <= 0.5	GADOLINIUM (Gd)	ppb	<= 0.1	<0.1
HAFNIUM (Hf)	GALLIUM (Ga)	ppb	<= 0.1	<0.1
HOLMIUM (Ho) ppb <= 0.1	GERMANIUM (Ge)	ppb	<= 0.5	<0.5
INDIUM (In)	HAFNIUM (Hf)	ppb	<= 0.1	<0.1
IRON (Fe)       ppb       <= 1       <1         LANTHANUM (La)       ppb       <= 0.1	HOLMIUM (Ho)	ppb	<= 0.1	<0.1
LANTHANUM (La)       ppb       <= 0.1	INDIUM (In)	ppb	<= 0.1	<0.1
LEAD (Pb)       ppb       <= 0.1	IRON (Fe)	ppb	<= 1	<1
LITHIUM (Li)       ppb       <= 0.1	LANTHANUM (La)	ppb	<= 0.1	<0.1
LUTETIUM (Lu)       ppb       <= 0.1	LEAD (Pb)	ppb	<= 0.1	<0.1
MAGNESIUM (Mg)       ppb       <= 0.5	LITHIUM (Li)	ppb	<= 0.1	<0.1
MANGANESE (Mn)       ppb       <= 0.5       <0.5         MERCURY (Hg)       ppb       <= 1	LUTETIUM (Lu)	ppb	<= 0.1	<0.1
MERCURY (Hg)       ppb       <= 1	MAGNESIUM (Mg)	ppb	<= 0.5	<0.5
MOLYBDENUM (Mo) ppb <= 0.5 <0.5	MANGANESE (Mn)	ppb	<= 0.5	<0.5
MOLYBDENUM (Mo) ppb <= 0.5 <0.5	MERCURY (Hg)	ppb	<= 1	<1
NEODYMIUM (Nd) ppb <= 0.1 <0.1	MOLYBDENUM (Mo)		<= 0.5	<0.5
	NEODYMIUM (Nd)	ppb	<= 0.1	<0.1

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.





NICKEL (Ni)	ppb	<= 0.5	<0.5
PHOSPHATE (PO4)	ppm	<= 1	<1
PLATINUM (Pt)	ppb	<= 0.5	<0.5
POTASSIUM (K)	ppb	<= 1	<1
PRASEODYMIUM (Pr)	ppb	<= 0.1	<0.1
RHENIUM (Re)	ppb	<= 0.1	<0.1
RHODIUM (Rh)	ppb	<= 0.5	<0.5
RUBIDIUM (Rb)	ppb	<= 0.1	<0.1
RUTHENIUM (Ru)	ppb	<= 0.5	<0.5
SAMARIUM (Sm)	ppb	<= 0.1	<0.1
SCANDIUM (Sc)	ppb	<= 0.1	<0.1
SELENIUM (Se)	ppb	<= 1	<1
SILVER (Ag)	ppb	<= 1	<1
SODIUM (Na)	ppb	<= 1	<1
STRONTIUM (Sr)	ppb	<= 0.5	<0.5
SUBSTANCES REDUCING DICHROMATE	PASS/FAIL	= PASS TEST	PASS TEST
SUBSTANCES REDUCING KMNO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	ppm	<= 0.5	<0.5
TELLURIUM (Te)	ppb	<= 0.5	<0.5
TERBIUM (Tb)	ppb	<= 0.1	<0.1
THALLIUM (TI)	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	<= 0.5	<0.5
TUNGSTEN (W)	ppb	<= 0.5	<0.5
URANIUM (U)	ppb	<= 0.1	<0.1
VANADIUM (V)	ppb	<= 0.5	<0.5
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

Mis Gla.

Matthew Micek QC Supervisior

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.