

Certificate of Analysis

Product Number: S010601

Product Description: Acetic acid

Product Grade: Instrument Quality

Lot Number: 6121090

Release Date: 05/05/2022 (mm/dd/yyyy) **Expiration Date:** 05/05/2025 (mm/dd/yyyy) CAS Number: 64-19-7
Molecular Weight: 60.05
Molecular Formula: CH₃COOH
Density: 1.05 g/mL
Molarity: 18 moles/litre
Normality: 18 moles/litre

Analyte	Specification	Actual Value	Analyte	Specification	Actual Value
Assay (CH ₃ COOH)	≥99% w/w	99.7% w/w	Lutetium (Lu)	0.1 ppb	< 0.1 ppb
Colour	10 APHA	< 10 APHA	Magnesium (Mg)	0.5 ppb	< 0.2 ppb
Chloride (Cl ⁻)	1 ppm	< 1 ppm	Manganese (Mn)	0.5 ppb	< 0.1 ppb
Phosphate (PO ₄ ³⁻)	1 ppm	< 1 ppm	Mercury (Hg)	1 ppb	< 0.5 ppb
Sulphate (SO ₄ ²⁻)	0.5 ppm	< 0.5 ppm	Molybdenum (Mo)	0.5 ppb	< 0.5 ppb
Substances Reducing	To Pass Test	Passes Test	Neodymium (Nd)	0.1 ppb	< 0.1 ppb
Dichromate (K ₂ Cr ₂ O ₇)			Nickel (Ni)	0.5 ppb	< 0.1 ppb
Substances Reducing			Platinum (Pt)	0.5 ppb	< 0.1 ppb
Permanganate (KMnO ₄)	To Pass Test	Passes Test	Potassium (K)	1 ppb	< 0.5 ppb
Aluminum (AI)	1 ppb	< 0.5 ppb	Praseodymium (Pr)	0.1 ppb	< 0.1 ppb
Antimony (Sb)	0.5 ppb	< 0.1 ppb	Rhenium (Re)	0.1 ppb	< 0.1 ppb
Arsenic (As)	0.5 ppb	< 0.1 ppb	Rhodium (Rh)	0.5 ppb	< 0.1 ppb
Barium (Ba)	0.5 ppb	< 0.1 ppb	Rubidium (Rb)	0.1 ppb	< 0.1 ppb
Beryllium (Be)	0.1 ppb	< 0.1 ppb	Ruthenium (Ru)	0.5 ppb	< 0.1 ppb
Bismuth (Bi)	0.1 ppb	< 0.1 ppb	Samarium (Sm)	0.1 ppb	< 0.1 ppb
Cadmium (Cd)	0.5 ppb	< 0.1 ppb	Scandium (Sc)	0.1 ppb	< 0.1 ppb
Calcium (Ca)	1 ppb	< 1 ppb	Selenium (Se)	1 ppb	< 0.5 ppb
Cerium (Ce)	0.1 ppb	< 0.1 ppb	Silver (Ag)	1 ppb	< 0.1 ppb
Cesium (Cs)	0.1 ppb	< 0.1 ppb	Sodium (Na)	1 ppb	< 0.5 ppb
Chromium (Cr)	1 ppb	< 0.1 ppb	Strontium (Sr)	0.5 ppb	< 0.1 ppb
Cobalt (Co)	0.1 ppb	< 0.1 ppb	Tellurium (Te)	0.5 ppb	< 0.1 ppb
Copper (Cu)	0.5 ppb	< 0.1 ppb	Terbium (Tb)	0.1 ppb	< 0.1 ppb
Dysprosium (Dy)	0.1 ppb	< 0.1 ppb	Thallium (TI)	0.1 ppb	< 0.1 ppb
Erbium (Er)	0.1 ppb	< 0.1 ppb	Thorium (Th)	0.1 ppb	< 0.1 ppb
Europium (Eu)	0.1 ppb	< 0.1 ppb	Thulium (Tm)	0.1 ppb	< 0.1 ppb
Gadolinium (Gd)	0.1 ppb	< 0.1 ppb	Tin (Sn)	0.5 ppb	< 0.1 ppb
Gallium (Ga)	0.1 ppb	< 0.1 ppb	Titanium (Ti)	0.5 ppb	< 0.1 ppb
Germanium (Ge)	0.5 ppb	< 0.1 ppb	Tungsten (W)	0.5 ppb	< 0.1 ppb
Hafnium (Hf)	0.1 ppb	< 0.1 ppb	Uranium (U)	0.1 ppb	< 0.1 ppb
Holmium (Ho)	0.1 ppb	< 0.1 ppb	Vanadium (V)	0.5 ppb	< 0.1 ppb
Indium (In)	0.1 ppb	< 0.1 ppb	Ytterbium (Yb)	0.1 ppb	< 0.1 ppb
Iron (Fe)	1 ppb	< 0.5 ppb	Yttrium (Y)	0.1 ppb	< 0.1 ppb
Lanthanum (La)	0.1 ppb	< 0.1 ppb	Zinc (Zn)	1 ppb	< 0.5 ppb
Lead (Pb)	0.1 ppb	< 0.1 ppb	Zirconium (Zr)	0.1 ppb	< 0.1 ppb
Lithium (Li)	0.1 ppb	< 0.1 ppb			

Greg Henson QA & RA Manager

For terms and conditions of use, please see page 2.



Terms and Conditions of Use

Safety Guidelines:

PRIOR to opening or storing this product be sure to consult the Safety Data Sheet (SDS) to ensure safe storage and handling with regards to this hazardous material. This information must be read and understood prior to use or storage.

SAFETY HANDLING NOTES: Consult the SDS PRIOR to handling this product. Use proper safety apparel according to the recommendations of the SDS. Exposure controls and personal protection should include: a properly functioning fume hood, protection for eyes (safety glasses), hands (chemically compatible gloves), feet (chemically compatible boots), and exposed skin (splash protection and a chemically compatible apron). All of these items must conform to local/regional/national regulatory requirements.

SEASTAR™'s Product Integrity Guidelines:

We have found our products, unopened and sealed, maintain the certified integrity, or product quality, for their stated certification period under the following conditions:

- Store at room temperature, maximum range 15°C (59°F) to 25°C (77°F).
- Avoid exposure to sunlight or ultraviolet light sources.
- Open in a 'particle free' environment. SEASTAR recommends a HEPA or ULPA particle filtered trace metal clean room. Open product should be handled under Class 100 or ISO 5 clean room or better conditions.

Once opened, product integrity will depend on proper handling and exposure to contaminants. To reduce trace metal contamination, the inner pack of plastic bags and bottle should be opened under Class 100 or ISO 5 clean room or better conditions to maintain the integrity of the product. The use of plastic gloves, hair net and a clean room suit is also advised.

For SEASTAR™'s Product Expiration Policy and Product Permeation FAQ, please see our website.

Notes:

Reported density, molarity and normality values reflect published literature and are characteristic of the product's assay range. If you require an accurate density, molarity, or normality for the product that you have purchased, you will have to perform the measurement. Bottles within a given lot have small assay variations.

Definitions:

- Actual value: the measured value in a particular lot analysis.
- **Analyte:** the substance being measured.
- Specification: the maximum certified value of an analyte, unless otherwise specified.
- **Unit(s):** ppm part per million or µg (microgram) of analyte per gram of solution.
 - **ppb** part per billion or ng (nanogram) of analyte per gram of solution. **ppt** – part per trillion or pg (picogram) of analyte per gram of solution.