

Certificate of Analysis

PRODUCT NAME: Nitric Acid, ChemTrace
GRADE: ChemTrace
CHEMICAL FORMULA: HNO₃

F.W.: 63.0100
CAS No: 7697-37-2
Density: 1.4200

Certified Values:

Specifications	Status	Results
Assay 67.0 - 70.0 %	Pass	69.0
Chloride 0.2 ppm Max	Pass	<0.2
Color (APHA) 10 Max	Pass	<10
Phosphate (PO ₄) 10.00 ppb Max	Pass	<10.00
Sulfate (SO ₄) 300.0 ppb Max	Pass	<300.0
Aluminum (Al) 1 ppb Max	Pass	<1
Antimony (Sb) 0.5 ppb Max	Pass	<0.5
Arsenic (As) 0.5 ppb Max	Pass	<0.5
Barium (Ba) 0.1 ppb Max	Pass	<0.1
Beryllium (Be) 0.1 ppb Max	Pass	<0.1
Bismuth (Bi) 0.1 ppb Max	Pass	<0.1
Boron (B) 3 ppb Max	Pass	<3
Cadmium (Cd) 0.5 ppb Max	Pass	<0.5
Calcium (Ca) 1 ppb Max	Pass	<1
Cerium (Ce) 0.1 ppb Max	Pass	<0.1
Cesium (Cs) 0.1 ppb Max	Pass	<0.1
Chromium (Cr) 1 ppb Max	Pass	<1
Cobalt (Co) 0.5 ppb Max	Pass	<0.5
Copper (Cu) 0.5 ppb Max	Pass	<0.5
Dysprosium (Dy) 0.1 ppb Max	Pass	<0.1
Erbium (Er) 0.1 ppb Max	Pass	<0.1
Europium (Eu) 0.1 ppb Max	Pass	<0.1
Gadolinium (Gd) 0.1 ppb Max	Pass	<0.1
Gallium (Ga) 0.1 ppb Max	Pass	<0.1
Germanium (Ge) 0.1 ppb Max	Pass	<0.1
Gold (Au) 0.1 ppb Max	Pass	<0.1
Hafnium (Hf) 0.1 ppb Max	Pass	<0.1
Holmium (Ho) 0.1 ppb Max	Pass	<0.1
Indium (In) 0.1 ppb Max	Pass	<0.1
Iron (Fe) 3 ppb Max	Pass	<3
Lanthanum (La) 0.1 ppb Max	Pass	<0.1
Lead (Pb) 0.1 ppb Max	Pass	<0.1
Lithium (Li) 0.1 ppb Max	Pass	<0.1
Lutetium (Lu) 0.1 ppb Max	Pass	<0.1
Magnesium (Mg) 1 ppb Max	Pass	<1
Manganese (Mn) 0.1 ppb Max	Pass	<0.1
Mercury (Hg) 0.1 ppb Max	Pass	<0.1
Molybdenum (Mo) 0.1 ppb Max	Pass	<0.1
Neodymium (Nd) 0.1 ppb Max	Pass	<0.1
Nickel (Ni) 0.5 ppb Max	Pass	<0.5
Niobium (Nb) 0.1 ppb Max	Pass	<0.1
Palladium (Pd) 0.5 ppb Max	Pass	<0.5

Platinum (Pt) 0.5 ppb Max	Pass	<0.5
Potassium (K) 1 ppb Max	Pass	<1
Praseodymium (Pr) 0.1 ppb Max	Pass	<0.1
Rhenium (Re) 0.1 ppb Max	Pass	<0.1
Rhodium (Rh) 0.5 ppb Max	Pass	<0.5
Rubidium (Rb) 0.1 ppb Max	Pass	<0.1
Ruthenium (Ru) 0.5 ppb Max	Pass	<0.5
Samarium (Sm) 0.1 ppb Max	Pass	<0.1
Scandium (Sc) 0.1 ppb Max	Pass	<0.1
Selenium (Se) 1 ppb Max	Pass	<1
Silver (Ag) 0.1 ppb Max	Pass	<0.1
Sodium (Na) 10 ppb Max	Pass	<10
Strontium (Sr) 0.1 ppb Max	Pass	<0.1
Tantalum (Ta)	Report	<1
Tellurium (Te) 0.1 ppb Max	Pass	<0.1
Terbium (Tb) 0.1 ppb Max	Pass	<0.1
Thallium (Tl) 0.1 ppb Max	Pass	<0.1
Thorium (Th) 0.1 ppb Max	Pass	<0.1
Thulium (Tm) 0.1 ppb Max	Pass	<0.1
Tin (Sn) 0.5 ppb Max	Pass	<0.5
Titanium (Ti) 0.5 ppb Max	Pass	<0.5
Tungsten (W) 0.1 ppb Max	Pass	<0.1
Uranium (U) 0.1 ppb Max	Pass	<0.1
Vanadium (V) 0.5 ppb Max	Pass	<0.5
Ytterbium (Yb) 0.1 ppb Max	Pass	<0.1
Yttrium (Y) 0.1 ppb Max	Pass	<0.1
Zinc (Zn) 0.5 ppb Max	Pass	<0.5
Zirconium (Zr) 0.1 ppb Max	Pass	<0.1

Comments

Certificate Created By: Michael J. Firis **Best by:** May 12, 2027
CoA Creation Date: May 13, 2025 **Print Date:** May 23, 2025
Certified by: Aron Becza - Quality Assurance Manager

Aron Becza

Traceability:

This material was processed under a quality management system that is registered to ISO 9001:2015. The equipment used in the testing of material is NIST traceable. In cases where NIST traceability is not possible, equipment manufacturer recommendations and/or industry best practices are followed.

Not for direct use in food, cosmetics, finished pharmaceuticals or drug products. Supplier is not responsible for compliance with FDA Current Good Manufacturing Practices (cGMP), including without limitation for those finished drug products in 21 CFR Parts 210 and 211.

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