

Material Number: 83872
Material Description: Nitric acid 67-69%
Grade: NORMATOM for trace metal analysis
CAS Number: 7697-37-2
Molecular Mass: 63.01
Molecular Formula: HNO₃
Date Specification Set: January 2008

(All batches of this product after this date are tested to this specification. In the unlikely event that the specification is changed a new certificate will be issued)

Characteristics	Specifications
Assay	67 - 69%
Colouration	max. 10 APHA
Cl (Chloride)	max. 0.2 ppm
P (Total Phosphorus)	max. 0.01 ppm
S (Total Sulphur)	max. 0.3 ppm
Ag (Silver)	max. 0.1 ppb
Al (Aluminum)	max. 1 ppb
As (Arsenic)	max. 0.5 ppb
Au (Gold)	max. 0.1 ppb
B (Boron)	max. 1 ppb
Ba (Barium)	max. 0.1 ppb
Be (Beryllium)	max. 0.1 ppb
Bi (Bismuth)	max. 0.1 ppb
Ca (Calcium)	max. 1 ppb
Cd (Cadmium)	max. 0.5 ppb
Ce (Cerium)	max. 0.1 ppb
Co (Cobalt)	max. 0.5 ppb
Cr (Chromium)	max. 1 ppb
Cs (Cesium)	max. 0.1 ppb
Cu (Copper)	max. 0.5 ppb
Dy (Dysprosium)	max. 0.1 ppb
Er (Erbium)	max. 0.1 ppb
Eu (Europium)	max. 0.1 ppb
Fe (Iron)	max. 1 ppb
Ga (Gallium)	max. 0.1 ppb
Gd (Gadolinium)	max. 0.1 ppb
Ge (Germanium)	max. 0.1 ppb
Hf (Hafnium)	max. 0.1 ppb
Hg (Mercury)	max. 0.1 ppb
Ho (Holmium)	max. 0.1 ppb
In (Indium)	max. 0.1 ppb
K (Potassium)	max. 1 ppb
La (Lanthanum)	max. 0.1 ppb
Li (Lithium)	max. 0.1 ppb
Lu (Lutetium)	max. 0.1 ppb
Mg (Magnesium)	max. 1 ppb
Mn (Manganese)	max. 0.1 ppb
Mo (Molybdenum)	max. 0.1 ppb
Na (Sodium)	max. 1 ppb

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Characteristics	Specifications
Nb (Niobium)	max. 0.1 ppb
Nd (Neodymium)	max. 0.1 ppb
Ni (Nickel)	max. 0.5 ppb
Pb (Lead)	max. 0.1 ppb
Pd (Palladium)	max. 0.5 ppb
Pr (Praseodymium)	max. 0.1 ppb
Pt (Platinum)	max. 0.5 ppb
Rb (Rubidium)	max. 0.1 ppb
Re (Rhenium)	max. 0.1 ppb
Rh (Rhodium)	max. 0.5 ppb
Ru (Ruthenium)	max. 0.5 ppb
Sb (Antimony)	max. 0.5 ppb
Sc (Scandium)	max. 0.1 ppb
Se (Selenium)	max. 1 ppb
Sm (Samarium)	max. 0.1 ppb
Sn (Tin)	max. 0.5 ppb
Sr (Strontium)	max. 0.1 ppb
Ta (Tantalum)	Information Only
Tb (Terbium)	max. 0.1 ppb
Te (Tellurium)	max. 0.1 ppb
Th (Thorium)	max. 0.1 ppb
Ti (Titanium)	max. 0.5 ppb
Tl (Thallium)	max. 0.1 ppb
Tm (Thulium)	max. 0.1 ppb
U (Uranium)	max. 0.1 ppb
V (Vanadium)	max. 0.5 ppb
W (Tungsten)	max. 0.1 ppb
Y (Yttrium)	max. 0.1 ppb
Yb (Ytterbium)	max. 0.1 ppb
Zn (Zinc)	max. 0.5 ppb
Zr (Zirconium)	max. 0.1 ppb

Signed on behalf of VWR:



Greg Henson
QA & RA Manager