

Certificate of Analysis

PRODUCT NAME: **Nitric Acid, 70%**
ACS/Trace Metal

CHEMICAL FORMULA: **HNO₃**



Cust-Product Code: CP-M1778S

Product Code: 370800-80601

Lot #: 2015070168

F.W.: 63.0100

CAS No: 7697-37-2

Density: 1.4200

ANALYTICAL RESULTS		
ITEM	SPECIFICATIONS	ANALYSIS
Assay (HNO ₃)	69.0 - 70.0%	69.4%
Appearance	Clear, colorless liquid	Passes Test
Color (APHA)	10 max.	0
Residue After Ignition	5 ppm max.	<1 ppm
Specific Gravity (60°F/60°F)	1.416 - 1.420	1.417
Chloride (Cl)	0.05 ppm max.	<0.04 ppm
Phosphate (PO ₄)	0.1 ppm max.	<0.025 ppm
Sulfate (SO ₄)	0.4 ppm max.	<0.025 ppm
Heavy Metals (as Pb)	100 ppb max.	<2 ppb
Aluminum (Al)	30 ppb max.	21 ppb
Antimony (Sb)	5 ppb max.	<0.05 ppb
Arsenic (As)	5 ppb max.	<0.1 ppb
Barium (Ba)	1 ppb max.	<0.05 ppb
Beryllium (Be)	1 ppb max.	
Bismuth (Bi)	1 ppb max.	
Boron (B)	4 ppb max.	0.8 ppb
Cadmium (Cd)	1 ppb max.	<0.05 ppb
Calcium (Ca)	100 ppb max.	2 ppb
Chromium (Cr)	10 ppb max.	0.1 ppb
Cobalt (Co)	1 ppb max.	<0.05 ppb
Copper (Cu)	1 ppb max.	0.2 ppb
Gallium (Ga)	20 ppb max.	<0.02 ppb
Germanium (Ge)	4 ppb max.	<0.07 ppb
Gold (Au)	4 ppb max.	<0.2 ppb
Iron (Fe)	20 ppb max.	1.2 ppb
Lead (Pb)	0.5 ppb max.	<0.05 ppb
Lithium (Li)	1 ppb max.	<0.05 ppb
Magnesium (Mg)	7 ppb max.	0.6 ppb
Manganese (Mn)	1 ppb max.	<0.05 ppb
Mercury (Hg)	1 ppb max.	<1 ppb

It is certified that the above is a true copy of the actual lot analysis.

CERTIFIED CORRECT BY:

Kevin Hansen
Quality Assurance Manager

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Document Print Date:

03/09/2016

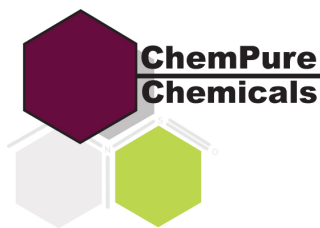
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ANALYTICAL RESULTS		
ITEM	SPECIFICATIONS	ANALYSIS
Molybdenum (Mo)	5 ppb max.	<0.05 ppb
Nickel (Ni)	2 ppb max.	0.1 ppb
Niobium (Nb)	1 ppb max.	<0.02 ppb
Potassium (K)	5 ppb max.	<0.6 ppb
Silicon (Si)	20 ppb max.	<3 ppb
Silver (Ag)	1 ppb max.	<0.05 ppb
Sodium (Na)	200 ppb max.	1.3 ppb
Strontium (Sr)	1 ppb max.	<0.02 ppb
Tantalum (Ta)	2 ppb max.	<0.02 ppb
Thallium (Tl)	5 ppb max.	<0.02 ppb
Tin (Sn)	5 ppb max.	<0.05 ppb
Titanium (Ti)	300 ppb max.	<0.3 ppb
Vanadium (V)	1 ppb max.	<0.02 ppb
Zinc (Zn)	5 ppb max.	<2 ppb
Zirconium (Zr)	1 ppb max.	<0.02 ppb
REMARKS		
This product meets the specifications of the American Chemical Society (ACS)		

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