



**ChemPure* Brand
Chemicals**

Cust-Product Code: CP-M1778P
Lot #: 2021072153

...Pure Quality

CERTIFICATE OF ANALYSIS

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

F.W.: 63.0100

CHEMICAL FORMULA: HNO₃

CAS No: 7697-37-2

Density: 1.4200

ANALYTICAL RESULTS		
ITEM	SPECIFICATIONS	ANALYSIS
Assay (HNO ₃)	69.0 - 70.0%	69.6%
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.	<0.3 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.	<0.06 ppb
Bismuth (Bi)	1 ppb max.	<0.02 ppb
Boron (B)	4 ppb max.	<0.3 ppb
Cadmium (Cd)	1 ppb max.	<0.05 ppb
Calcium (Ca)	100 ppb max.	2 ppb
Chromium (Cr)	10 ppb max.	0.05 ppb
Cobalt (Co)	1 ppb max.	<0.05 ppb
Copper (Cu)	1 ppb max.	<0.05 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.	0.3 ppb
Lead (Pb)	0.5 ppb max.	<0.05 ppb
Lithium (Li)	1 ppb max.	<0.05 ppb
Magnesium (Mg)	7 ppb max.	<0.05 ppb

Important. It is certified that the above is a true copy of the actual lot analysis. To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication. However, nothing herein shall constitute any express or implied warranty of merchantability or fitness for a particular purpose. The minimum shelf life is based on current knowledge and holds only for proper storage conditions in the original containers. We herewith confirm that the delivery is effected according to the technical conditions agreed. Particular properties of the products or the suitability for a particular area of application is not assured. It is the customer's responsibility to inspect and test the products in order to satisfy itself as to the suitability for the customer's particular purpose. This information is not intended to be all inclusive as to the manner and conditions of use, handling, storage, disposal, and other factors that may involve other or additional legal, environmental, safety or performance considerations, and CHEMPURE BRAND CHEMICALS assumes no liability whatsoever for the use of or reliance upon this information. Our technical personnel will be happy to respond to questions. Safe handling and use of the product remains the responsibility of the customer. No suggestions for use are intended as, and nothing herein shall be construed as, recommendations to infringe any existing patents or to violate any Federal, State, Local or foreign laws. This document was produced electronically and is valid without a signature. ChemPure Quality Management.

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Lot #: 2021072153

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CERTIFICATE OF ANALYSIS

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

F.W.: 63.0100

CHEMICAL FORMULA: HNO₃

CAS No: 7697-37-2

Density: 1.4200

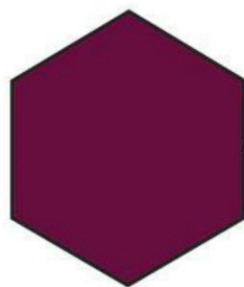
ANALYTICAL RESULTS		
ITEM	SPECIFICATIONS	ANALYSIS
Manganese (Mn)	1 ppb max.	<0.05 ppb
Mercury (Hg)	1 ppb max.	<1 ppb
Molybdenum (Mo)	5 ppb max.	<0.05 ppb
Nickel (Ni)	2 ppb max.	0.1 ppb
Niobium (Nb)	1 ppb max.	<0.02 ppb
Potassium (K)	5 ppb max.	1 ppb
Silicon (Si)	20 ppb max.	<3 ppb
Silver (Ag)	1 ppb max.	<0.05 ppb
Sodium (Na)	200 ppb max.	<1 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.	0.09 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
Expiration Date	Record Actual	07/21/2023
REMARKS		
Meets ACS specifications		
This product meets the specifications of the American Chemical Society (ACS)		

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**ChemPure* Brand
Chemicals**

Cust-Product Code: CP-M1774S
Lot #: 2021072153

...Pure Quality

CERTIFICATE OF ANALYSIS

PRODUCT NAME: **Nitric Acid**
ACS

CHEMICAL FORMULA: HNO₃

F.W.: 63.0100

CAS No: 7697-37-2

Density: 1.4200

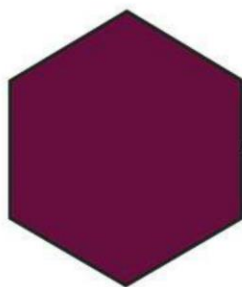
ANALYTICAL RESULTS		
ITEM	SPECIFICATIONS	ANALYSIS
Appearance	Colorless, free from susp. matter	Passes Test
Assay (HNO ₃)	68.0 - 70.0%	69.6%
Color (APHA)	10 max.	0
Residue After Ignition	5 ppm max.	<1 ppm
Chloride (Cl)	0.5 ppm max.	<0.5 ppm
Sulfate (SO ₄)	1 ppm max.	<1 ppm
Arsenic (As)	0.01 ppm max.	<0.01 ppm
Heavy Metals (as Pb)	0.2 ppm max.	<0.2 ppm
Iron (Fe)	0.2 ppm max.	<0.2 ppm
Manufacture Date	Record Actual	07/21/2021
Expiration date	2 Years	07/21/2023
REMARKS		
Meets ACS specifications		
This product meets the specifications of the American Chemical Society (ACS)		

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**ChemPure* Brand
Chemicals**

Cust-Product Code: CP-M2390D
Lot #: 2020100267

...Pure Quality

CERTIFICATE OF ANALYSIS

PRODUCT NAME: **Sodium Hydroxide**
Pellet, ACS

F.W.: 40.0000

CHEMICAL FORMULA: NaOH

CAS No: 1310-73-2

Density: 1.0000

ANALYTICAL RESULTS		
ITEM	SPECIFICATIONS	ANALYSIS
Iron (Fe)	0.001% max.	<0.001%
Nickel (Ni)	0.001% max.	<0.001%
Nitrogen Compounds (as N)	0.001% max.	<0.001%
Phosphate (PO4)	0.001% max.	<0.001%
Heavy metals (as Ag)	0.002% max.	<0.002%
Magnesium (Mg)	0.002% max.	<0.002%
Sulfate (SO4)	0.003% max.	<0.003%
Calcium (Ca)	0.005% max.	<0.005%
Chloride (Cl)	0.005% max.	<0.005%
Potassium (K)	0.02% max.	<0.02%
Mercury (Hg)	0.1 ppm max.	<0.1 ppm
Sodium Carbonate (Na2CO3)	1.0% max.	0.5%
Assay (NaOH)	97.0% min.	98.5%
Manufacture Date	Record Actual	08/01/2020
Expiration date	Record Actual	08/01/2023
REMARKS		

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