



**ChemPure* Brand
Chemicals**

Cust-Product Code: CP-M1495S
Lot #: 2021061775

...Pure Quality

CERTIFICATE OF ANALYSIS

PRODUCT NAME: **Hydrochloric Acid**
ACS

F.W.: 36.4600

CHEMICAL FORMULA: HCl

CAS No: 7647-01-0

Density: 1.1800

ANALYTICAL RESULTS		
ITEM	SPECIFICATIONS	ANALYSIS
Appearance	Clear, colorless liquid	Passes Test
Assay (HCl)	36.5 - 38.0%	37.3%
Color (APHA)	10 max.	1
Residue After Ignition	5 ppm max.	<5 ppm
Bromide (Br)	0.005% max.	<0.005%
Sulfate (SO ₄)	1 ppm max.	<0.1 ppm
Sulfite (SO ₃)	1 ppm max.	<0.1 ppm
Free Chlorine (Cl ₂)	1 ppm max.	<0.5 ppm
Ammonium (NH ₄)	3 ppm max.	<3 ppm
Arsenic (As)	0.01 ppm max.	<0.01 ppm
Heavy Metals	1 ppm max.	<0.01 ppm
Iron (Fe)	0.2 ppm max.	<0.01 ppm
Manufacture Date	Record Actual	06/14/2021
Recommended Retest Date	Report Actual	06/14/2023

REMARKS

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 technical 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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**ChemPure* Brand
Chemicals**

Cust-Product Code: CP-M2280D
Lot #: 2020061166

...Pure Quality

CERTIFICATE OF ANALYSIS

PRODUCT NAME: **Sodium Acetate, Anhydrous**
ACS

F.W.: 82.0300

CHEMICAL FORMULA: NaCH₃COO

CAS No: 127-09-3

Density: 1.0000

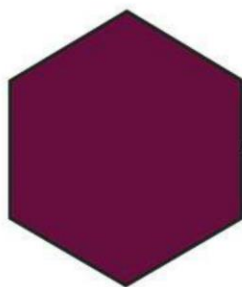
ANALYTICAL RESULTS		
ITEM	SPECIFICATIONS	ANALYSIS
Assay (NaC ₂ H ₃ O ₂)	99.0% min.	99.3%
pH of a 5% solution at 25°C	7.0-9.2	8.4
Insoluble Matter	0.01% max.	0.003%
Loss on drying @ 120C	1.0% max.	0.2%
Chloride (Cl)	0.002% max.	<0.002%
Phosphate (PO ₄)	0.001% max.	<0.001%
Sulfate (SO ₄)	0.003% max.	<0.003%
Calcium (Ca)	0.005% max.	0.0008%
Magnesium (Mg)	0.002% max.	0.0005%
Heavy metals (by ICP-OES)	0.001% max.	<0.001%
Iron (Fe)	0.001% max.	<0.001%
Manufacture Date	Record Actual	03/17/2020
Expiration date	Record Actual	03/17/2023
REMARKS		

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**ChemPure* Brand
Chemicals**

Cust-Product Code: CP-M2280D
Lot #: 2021051262

...Pure Quality

CERTIFICATE OF ANALYSIS

PRODUCT NAME: **Sodium Acetate, Anhydrous**
ACS

F.W.: 82.0300

CHEMICAL FORMULA: NaCH₃COO

CAS No: 127-09-3

Density: 1.0000

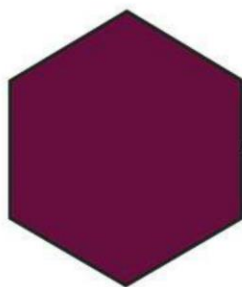
ANALYTICAL RESULTS		
ITEM	SPECIFICATIONS	ANALYSIS
Assay (NaC ₂ H ₃ O ₂)	99.0% min.	99.8%
pH of a 5% solution at 25°C	7.0-9.2	8.6
Insoluble Matter	0.01% max.	0.004%
Loss on drying @ 120C	1.0% max.	0.2%
Chloride (Cl)	0.002% max.	<0.002%
Phosphate (PO ₄)	0.001% max.	<0.001%
Sulfate (SO ₄)	0.003% max.	<0.003%
Calcium (Ca)	0.005% max.	0.0005%
Magnesium (Mg)	0.002% max.	0.0003%
Heavy metals (by ICP-OES)	0.001% max.	<0.001%
Iron (Fe)	0.001% max.	<0.001%
Manufacture Date	Record Actual	02/22/2021
Expiration date	Record Actual	02/22/2024
REMARKS		

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**ChemPure* Brand
Chemicals**

Cust-Product Code: CP-M2555P
Lot #: 2021062288

...Pure Quality

CERTIFICATE OF ANALYSIS

PRODUCT NAME: **Sulfuric Acid**
ACS

F.W.: 98.0800

CHEMICAL FORMULA: H₂SO₄

CAS No: 7664-93-9

Density: 1.8427

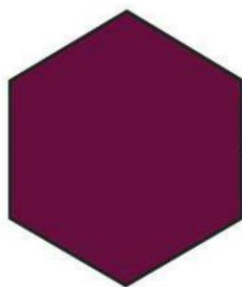
ANALYTICAL RESULTS		
ITEM	SPECIFICATIONS	ANALYSIS
Appearance	Free from suspended matter	Passes Test
Assay (H ₂ SO ₄)	95.0 - 98.0%	96.1%
Color (APHA)	10 max.	0
C.O.D. Test	Passes test	Passes Test
Residue After Ignition	5 ppm max.	<5 ppm
Chloride (Cl)	0.2 ppm max.	<0.2 ppm
Nitrate (NO ₃)	0.5 ppm max.	<0.5 ppm
Ammonium (NH ₄)	2 ppm max.	<2 ppm
Substances Reducing Permanganate	2 ppm max.	<2 ppm
Arsenic (As)	0.01 ppm max.	<0.01 ppm
Heavy Metals (as Pb)	1 ppm max.	<1 ppm
Iron (Fe)	0.2 ppm max.	<0.1 ppm
Mercury (Hg)	5 ppb max.	<5 ppb
Date of Manufacture	Record Actual	06/17/2021
Expiration date	Record Actual	06/17/2023
REMARKS		

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**ChemPure* Brand
Chemicals**

Cust-Product Code: CP-T2430P
Lot #: 2021061552

...Pure Quality

CERTIFICATE OF ANALYSIS

PRODUCT NAME: **Hydrochloric Acid 50%**
(v/v)

F.W.: 36.4600

CHEMICAL FORMULA: HCl

CAS No: 7647-01-0

Density: 1.0900

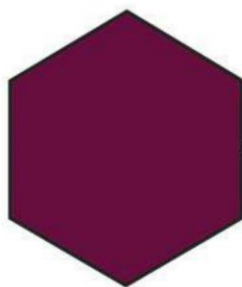
ANALYTICAL RESULTS		
ITEM	SPECIFICATIONS	ANALYSIS
Assay (V/V)	49.6 - 50.4%	50.0%
Appearance	Clear, colorless liquid	Passes Test
Manufacture Date	Record Actual	06/15/2021
REMARKS		
This item is certified against NIST Traceable Standards.		

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**ChemPure* Brand
Chemicals**

Cust-Product Code: CP-T2430P
Lot #: 2021061558

...Pure Quality

CERTIFICATE OF ANALYSIS

PRODUCT NAME: **Hydrochloric Acid 50%**
(v/v)

F.W.: 36.4600

CHEMICAL FORMULA: HCl

CAS No: 7647-01-0

Density: 1.0900

ANALYTICAL RESULTS		
ITEM	SPECIFICATIONS	ANALYSIS
Assay (V/V)	49.6 - 50.4%	50.1%
Appearance	Clear, colorless liquid	Passes Test
Manufacture Date	Record Actual	06/15/2021
REMARKS		
This item is certified against NIST Traceable Standards.		

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