

Material No.: 1.001011.03
Batch No.: GS240405
Manufactured Date: 2024/04/05
Retest Date: 2029/04/05

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Appearance	Passes Test	PT
Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.8
Color (APHA)	<= 10	< 10
Extractable Organic Substances	<= 5 ppm	< 5
Free Chlorine (as Cl ₂)	<= 1 ppm	< 1
Residue after Ignition	<= 3 ppm	< 3
Specific Gravity at 60°/60°F	1.185 – 1.192	1.188
Bromide (Br)	<= 0.005 %	< 0.005
Phosphate (PO ₄)	<= 1 ppm	< 1
Sulfate (SO ₄)	<= 0.5 ppm	< 0.5
Sulfite (SO ₃)	<= 0.8 ppm	< 0.8
Ammonium (NH ₄)	<= 3 ppm	< 3
Trace Impurities – Aluminum (Al)	<= 10.0 ppb	< 10.0
Arsenic and Antimony (as As)	<= 5 ppb	< 1
Trace Impurities – Boron (B)	<= 10 ppb	< 5.0
Trace Impurities – Calcium (Ca)	<= 10 ppb	< 10.0
Trace Impurities – Chromium (Cr)	<= 10 ppb	< 10.0
Trace Impurities – Copper (Cu)	<= 10 ppb	< 10.0
Trace Impurities – Gold (Au)	<= 10 ppb	< 10.0
Heavy Metals (as Pb)	<= 10 ppb	< 5
Trace Impurities – Iron (Fe)	<= 10 ppb	< 10.0
Trace Impurities – Lead (Pb)	<= 10 ppb	< 5.0
Trace Impurities – Magnesium (Mg)	<= 10 ppb	< 10.0
Trace Impurities – Manganese (Mn)	<= 10.0 ppb	< 10.0
Trace Impurities – Mercury (Hg)	<= 5.0 ppb	< 0.5
Trace Impurities – Nickel (Ni)	<= 10 ppb	< 10.0
Trace Impurities – Potassium (K)	<= 10 ppb	< 10.0
Trace Impurities – Sodium (Na)	<= 10 ppb	< 10.0
Trace Impurities – Tin (Sn)	<= 10 ppb	< 10.0
Trace Impurities – Titanium (Ti)	<= 10 ppb	< 10.0
Trace Impurities – Zinc (Zn)	<= 10 ppb	< 10.0

For Laboratory, Research or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: CN