

Sulfuric Acid 96%
CMOS



Material No.: 9684-03
Batch No.: 0000288002
Manufactured Date: 2021/06/14
Retest Date: 2026/06/13
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay (H ₂ SO ₄)	95.0 - 97.0 %	96.4
Color (APHA)	<= 10	5
Substances Reducing Permanganate (as SO ₂)	<= 2 ppm	< 2
Residue after Ignition	<= 2 ppm	< 1
Chloride (Cl)	<= 0.1 ppm	< 0.1
Nitrate (NO ₃)	<= 0.2 ppm	0.1
Phosphate (PO ₄)	<= 0.3 ppm	< 0.1
Trace Impurities - Aluminum (Al)	<= 50.0 ppb	2.0
Arsenic and Antimony (as As)	<= 5 ppb	< 2
Trace Impurities - Barium (Ba)	<= 10.0 ppb	< 0.1
Trace Impurities - Beryllium (Be)	<= 10.0 ppb	< 0.2
Trace Impurities - Bismuth (Bi)	<= 20.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 10.0 ppb	0.9
Trace Impurities - Cadmium (Cd)	<= 10.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	1.2
Trace Impurities - Chromium (Cr)	<= 50.0 ppb	< 1
Trace Impurities - Cobalt (Co)	<= 10.0 ppb	< 0.2
Trace Impurities - Copper (Cu)	<= 10.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 10.0 ppb	< 0.2
Trace Impurities - Germanium (Ge)	<= 10.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 20.0 ppb	< 1
Heavy Metals (as Pb)	<= 200 ppb	< 100
Trace Impurities - Iron (Fe)	<= 100.0 ppb	3.8
Trace Impurities - Lead (Pb)	<= 20.0 ppb	< 0.2

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Test	Specification	Result
Trace Impurities – Lithium (Li)	<= 10.0 ppb	< 0.1
Trace Impurities – Magnesium (Mg)	<= 50.0 ppb	0.1
Trace Impurities – Manganese (Mn)	<= 10.0 ppb	< 0.2
Trace Impurities – Mercury (Hg)	<= 5.0 ppb	0.2
Trace Impurities – Molybdenum (Mo)	<= 10.0 ppb	< 3.0
Trace Impurities – Nickel (Ni)	<= 10.0 ppb	0.3
Trace Impurities – Niobium (Nb)	<= 10.0 ppb	0.3
Trace Impurities – Potassium (K)	<= 50.0 ppb	< 1.0
Trace Impurities – Silicon (Si)	<= 50.0 ppb	2.6
Trace Impurities – Silver (Ag)	<= 10.0 ppb	< 0.3
Trace Impurities – Sodium (Na)	<= 100.0 ppb	1.0
Trace Impurities – Strontium (Sr)	<= 10.0 ppb	< 0.2
Trace Impurities – Tantalum (Ta)	<= 10.0 ppb	< 0.9
Trace Impurities – Thallium (Tl)	<= 20.0 ppb	< 2.0
Trace Impurities – Tin (Sn)	<= 50.0 ppb	< 1.0
Trace Impurities – Titanium (Ti)	<= 10.0 ppb	0.2
Trace Impurities – Vanadium (V)	<= 10.0 ppb	< 0.2
Trace Impurities – Zinc (Zn)	<= 50.0 ppb	<1
Trace Impurities – Zirconium (Zr)	<= 10.0 ppb	< 0.1
Particle Count – 0.5 µm and greater	<= 60 par/ml	16
Particle Count – 1.0 µm and greater	<= 10 par/ml	4

For Microelectronic Use

Storage Conditions: Recommended Storage Conditions: 15° – 100°F
Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Ethier
Vice President Global Quality