

Material No.: 9493-03 Batch No.: 0000283154

Manufactured Date: 2021/05/12

Retest Date: 2026/05/11 Revision No: 1

## Certificate of Analysis

Test	Specification	Result
Color (APHA)	<= 10	< 5
Residue after Evaporation	<= 5 ppm	< 2
Acidity (µeq/g)	<= 0.3	< 0.3
Water (H₂O)	<= 0.02 %	0.01
Chloride (CI)	<= 3 ppm	< 3
Phosphate (PO <sub>4</sub> )	<= 0.5 ppm	< 0.5
Trace Impurities - Aluminum (AI)	<= 50.0 ppb	< 5.0
Arsenic and Antimony (as As)	<= 10 ppb	< 10
Trace Impurities - Barium (Ba)	<= 20.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 20.0 ppb	< 1.0
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	5.1
Trace Impurities - Chromium (Cr)	<= 50.0 ppb	< 1.0
Trace Impurities - Cobalt (Co)	<= 20.0 ppb	< 1.0
Trace Impurities – Copper (Cu)	<= 10.0 ppb	< 1.0
Trace Impurities - Gallium (Ga)	<= 50.0 ppb	< 1.0
Trace Impurities - Germanium (Ge)	<= 100.0 ppb	< 10.0
Trace Impurities - Gold (Au)	<= 50.0 ppb	< 5.0
Heavy Metals (as Pb)	<= 1000 ppb	< 1000
Trace Impurities - Iron (Fe)	<= 50.0 ppb	< 1.0
Trace Impurities - Lead (Pb)	<= 100.0 ppb	< 10.0
Trace Impurities - Lithium (Li)	<= 50.0 ppb	< 1.0
Trace Impurities - Magnesium (Mg)	<= 20.0 ppb	< 1.0
Trace Impurities – Manganese (Mn)	<= 20.0 ppb	< 1.0

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Trace Impurities - Nickel (Ni)	<= 10.0 ppb	< 5.0
Trace Impurities – Potassium (K)	<= 100.0 ppb	< 10.0
Trace Impurities - Silicon (Si)	<= 200.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 50.0 ppb	< 1.0
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 20.0 ppb	< 1.0
Trace Impurities - Tin (Sn)	<= 100.0 ppb	< 1.0
Trace Impurities - Zinc (Zn)	<= 20.0 ppb	< 1.0
Particle Count - 1.0 µm and greater	<= 10 par/ml	1
Total of p-, m-, o-xylene, toluene and ethylbenzene (by GC)	>= 99.5 %	100.0

For Microelectronic Use

Country of Origin: US

Packaging Site: Paris Mfg Ctr & DC

