



Material No.: 9493-03 Batch No.: 0000219419 Manufactured Date: 2018/10/09 Retest Date: 2023/10/08 Revision No: 1

Certificate of Analysis

Test	Specification	Result
olor (APHA)	<= 10	5
esidue after Evaporation	<= 5 ppm	< 1
cidity (µeq/g)	<= 0.3	< 0.3
/ater (H2O)	<= 0.02 %	0.01
hloride (Cl)	<= 3 ppm	< 3
hosphate (PO4)	<= 0.5 ppm	< 0.5
race Impurities – Aluminum (Al)	<= 50.0 ppb	< 5.0
rsenic and Antimony (as As)	<= 10 ppb	<0.1
race Impurities – Barium (Ba)	<= 20.0 ppb	< 1.0
race Impurities – Boron (B)	<= 20.0 ppb	< 5.0
ace Impurities – Cadmium (Cd)	<= 20.0 ppb	< 1.0
race Impurities – Calcium (Ca)	<= 50.0 ppb	9.9
ace Impurities – Chromium (Cr)	<= 50.0 ppb	< 1.0
race Impurities – Cobalt (Co)	<= 20.0 ppb	< 1.0
race Impurities – Copper (Cu)	<= 10.0 ppb	< 1.0
race Impurities – Gallium (Ga)	<= 50.0 ppb	< 10.0
race Impurities – Germanium (Ge)	<= 100.0 ppb	< 10.0
race Impurities – Gold (Au)	<= 50.0 ppb	< 5.0
eavy Metals (as Pb)	<= 1000 ppb	< 1
race Impurities – Iron (Fe)	<= 50.0 ppb	< 1.0
ace Impurities – Lead (Pb)	<= 100.0 ppb	< 10.0
ace Impurities – Lithium (Li)	<= 50.0 ppb	< 1.0
ace Impurities – Magnesium (Mg)	<= 20.0 ppb	< 1.0
race Impurities – Manganese (Mn)	<= 20.0 ppb	< 1.0

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 – Nickel (Ni)	<= 10.0 ppb	< 5.0
Trace Impurities – Potassium (K)	<= 100.0 ppb	< 20.0
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	< 10.0
Trace Impurities – Zinc (Zn)	<= 20.0 ppb	1.1
Particle Count - 1.0 µm and greater	<= 10 par/ml	9
Total of p-, m-, o-xylene, toluene and ethylbenzene (by GC)	>= 99.5 %	99.7

For Microelectronic Use

Country of Origin: US Packaging Site: Paris Mfg Ctr & DC

> Phillipsburg, NJ 9001:2015, FSSC22000 Paris, KY 9001:2008 Mexico City, Mexico 9001:2008 Gliwice, Poland 9001:2015, 13485:2012 Selangor, Malaysia 9001:2008 Dehradun, India, 9001:2008, 14001:2004, 13485:2003 Mumbai, India, 9001:2015, 17025:2005 Panoli, India 9001:2015

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Jamie Ethier Vice President Global Quality

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