

Product Specification

Test	Specification
Appearance	Passes Test
Assay (as NH ₃)	28.0 – 30.0 %
Color (APHA)	≤ 7
Insoluble Matter	≤ 1 ppm
Residue after Ignition	≤ 3 ppm
Carbon Dioxide (CO ₂)	≤ 10 ppm
Pyridine	Passes Test
Substances Reducing Permanganate	Passes Test
Chloride (Cl)	≤ 0.3 ppm
Phosphate (PO ₄)	≤ 0.20 ppm
Total Sulfur (as SO ₄)	≤ 0.8 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb
Arsenic and Antimony (as As)	≤ 30.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 5.0 ppb
Trace Impurities – Calcium (Ca)	≤ 100.0 ppb
Trace Impurities – Chromium (Cr)	≤ 5.0 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb
Trace Impurities – Germanium (Ge)	≤ 50.0 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb
Heavy Metals (as Pb)	≤ 200.0 ppb
Trace Impurities – Iron (Fe)	≤ 10.0 ppb
Trace Impurities – Lead (Pb)	≤ 10.0 ppb

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Trace Impurities – Lithium (Li)	≤ 10.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 50.0 ppb
Trace Impurities – Manganese (Mn)	≤ 5.0 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb
Trace Impurities – Nickel (Ni)	≤ 5.0 ppb
Trace Impurities – Niobium (Nb)	≤ 10.0 ppb
Trace Impurities – Potassium (K)	≤ 100 ppb
Trace Impurities – Silicon (Si)	≤ 150.0 ppb
Trace Impurities – Silver (Ag)	≤ 5.0 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb
Trace Impurities – Strontium (Sr)	≤ 10.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb
Trace Impurities – Thallium (Tl)	≤ 20.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb
Particle Count at point of fill – 0.5 µm	≤ 100 par/ml
Particle Count at point of fill – 1.0 µm	≤ 25 par/ml

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Material No.: 9741-4X

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For Microelectronic Use

Packaging Site: Phillipsburg Mfg Ctr & DC

James Ethier
Jamie Ethier
Vice President Global Quality