

High Purity 1.7 Molar VRB Electrolyte



CHEMISTRY

Elements	
Vanadium Molarity	1.68 - 1.72 mol/L
Vanadium Valence	3.48 - 3.5
Density	1.35 - 1.38 g/cc
Sulfuric Acid Molarity	4.1 - 4.4 mol/L
Silver (Ag)	<0.05 mg/L
Aluminum (Al)	<40 mg/L
Arsenic (As)	<0.25 mg/L
Gold (Au)	<0.1 mg/L
Bismuth (Bi)	<0.2 mg/L
Calcium (Ca)	<30 mg/L
Cobalt (Co)	<0.1 mg/L
Chromium (Cr)	<17 mg/L
Copper (Cu)	<0.5 mg/L
Iron (Fe)	<60 mg/L
Iridium (Ir)	<0.01 mg/L
Potassium (K)	<20 mg/L
Lithium (Li)	<20 mg/L

CHEMISTRY (Continued)

Magnesium (Mg)	<20 mg/L
Manganese (Mn)	<5 mg/L
Molybdenum (Mo)	<20 mg/L
Sodium (Na)	<50 mg/L
Nickel (Ni)	<5 mg/L
Osmium (Os)	<0.01 mg/L
Lead (Pb)	<1 mg/L
Palladium (Pd)	<0.2 mg/L
Platinum (Pt)	<0.2 mg/L
Rhenium (Re)	<0.01 mg/L
Rhodium (Rh)	<0.01 mg/L
Ruthenium (Ru)	<0.01 mg/L
Antimony (Sb)	<0.5 mg/L
Silicon (Si)	<15 mg/L
Tin (Sn)	<0.5 mg/L
Titanium (Ti)	<30 mg/L
Thallium (Tl)	<1 mg/L
Zinc (Zn)	<3 mg/L

VRB Electrolyte is a high-purity product used in vanadium redox batteries (VRB) as an energy storing liquid. VRB Electrolyte is produced at our ISO 9001:2015 certified Hot Springs, Arkansas facility.

This specification is for US Vanadium's 1.7 Molar VRB Electrolyte. Other Electrolyte compositions can be made to meet specific customer needs upon request.

Packaging – 330 Gallon PE IBC Totes

Specification No. MC23 Revision No. 2

Issue Date: 11/08/22 Revision Date: 04/30/24

Director of Technology Approval



Quality Manager Approval

