

Certificate of Analysis



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FORM NO. FRM-01888 Rev1

Description: Ammonium Floride 40-41%

Item Code: 100-0117 **Packaging Size:** 1 GAL Bottle

Batch No: AF1509243020 **Customer/CMC spec:** KMG_P4118.1

Manufacture Date: 15-Sep-2024 **Customer Part Number:** NA

Expiry Date: 15-Sep-2025 **Grade:** Cleanroom MB

Parameter	Min	Max	Unit	Result
Assay (NH ₄ F)	40.00	41.00	%	40.54
pH of 1% solution	6.00	7.00		6.27
Color		10	APHA	5
Chloride (Cl)		2000	ppb	<50
Nitrate (NO ₃)		3000	ppb	<50
Sulfate (SO ₄)		1000	ppb	<100
Phosphate (PO ₄)		200	ppb	<100
Appearance				PASS
Aluminum (Al)		10.0	ppb	<0.1
Antimony (Sb)		5.0	ppb	<0.1
Arsenic (As)		5.0	ppb	<0.1
Barium (Ba)		2.0	ppb	<0.1
Beryllium (Be)		1.0	ppb	<0.1
Bismuth (Bi)		1.0	ppb	<0.1
Boron (B)		5.0	ppb	0.1
Cadmium (Cd)		1.0	ppb	<0.1
Calcium (Ca)		10.0	ppb	0.2
Chromium (Cr)		3.0	ppb	<0.1
Cobalt (Co)		1.0	ppb	<0.1
Copper (Cu)		1.0	ppb	<0.1
Gallium (Ga)		1.0	ppb	<0.1
Germanium (Ge)		5.0	ppb	<0.1
Gold (Au)		5.0	ppb	<0.1
Iron (Fe)		10.0	ppb	0.3
Lead (Pb)		5.0	ppb	<0.1
Lithium (Li)		1.0	ppb	<0.1
Magnesium (Mg)		5.0	ppb	<0.1

Parameter	Min	Max	Unit	Result
Manganese (Mn)		1.0	ppb	<0.1
Molybdenum (Mo)		1.0	ppb	<0.1
Nickel (Ni)		5.0	ppb	<0.1
Niobium (Nb)		1.0	ppb	<0.1
Potassium (K)		6.0	ppb	<0.1
Silver (Ag)		1.0	ppb	<0.1
Sodium (Na)		7.0	ppb	4.1
Strontium (Sr)		1.0	ppb	<0.1
Tantalum (Ta)		3.0	ppb	<0.1
Thallium (Tl)		5.0	ppb	<0.1
Tin (Sn)		5.0	ppb	<0.1
Titanium (Ti)		1.0	ppb	<0.1
Vanadium (V)		1.0	ppb	<0.1
Zinc (Zn)		5.0	ppb	0.2
Zirconium (Zr)		1.0	ppb	<0.1
0.2µ Particle Count		1500	par/ml	14
0.3µ Particle Count		1500	par/ml	2
0.5µ Particle Count		50	par/ml	<1
1.0µ Particle Count		10	par/ml	<1

Approved on: 18-Sep-2024

This certificate of analysis is electronically issued and is valid without signature