

PRODUCT SPECIFICATION SHEET

Hydrofluoric Acid, 49%

Electronic/Semiconductor Grade

| Test | Specification | Typical Results |
|--|---------------|-----------------|
| Assay (HF), % | 48.8-49.2 | 48.8-49.2 |
| Color (APHA), | Max 7 | Max 7 |
| Fluosilicic Acid (H ₂ SiF ₆), ppb | Max 50000 | Max 50000 |
| Chloride (Cl), ppb | Max 5000 | Max 5000 |
| Nitrate (NO ₃), ppb | Max 3000 | Max 3000 |
| Phosphate (PO ₄), ppb | Max 500 | Max 500 |
| Sulfate (SO ₄), ppb | Max 1000 | Max 1000 |
| Sulfite (SO ₃), ppb | Max 1000 | Max 1000 |
| Aluminum (Al), ppb | Max 20 | Max 20 |
| Arsenic and Antimony (as As), ppb | Max 100 | Max 100 |
| Barium (Ba), ppb | Max 10 | Max 10 |
| Beryllium (Be), ppb | Max 10 | Max 10 |
| Bismuth (Bi), ppb | Max 20 | Max 20 |
| Boron (B), ppb | Max 20 | Max 20 |
| Cadmium (Cd), ppb | Max 10 | Max 10 |
| Calcium (Ca), ppb | Max 50 | Max 50 |
| Chromium (Cr), ppb | Max 10 | Max 10 |
| Cobalt (Co), ppb | Max 10 | Max 10 |
| Copper (Cu), ppb | Max 10 | Max 10 |
| Gallium (Ga), ppb | Max 10 | Max 10 |
| Germanium (Ge), ppb | Max 20 | Max 20 |

| | | |
|-------------------------------|---------|---------|
| Gold (Au), ppb | Max 20 | Max 20 |
| Iron (Fe), ppb | Max 50 | Max 50 |
| Lead (Pb), ppb | Max 10 | Max 10 |
| Lithium (Li), ppb | Max 10 | Max 10 |
| Magnesium (Mg), ppb | Max 20 | Max 20 |
| Manganese (Mn), ppb | Max 10 | Max 10 |
| Molybdenum (Mo), ppb | Max 20 | Max 20 |
| Nickel (Ni), ppb | Max 10 | Max 10 |
| Niobium (Nb), ppb | Max 10 | Max 10 |
| Potassium (K), ppb | Max 20 | Max 20 |
| Silicon (Si), ppb | Max 10 | Max 10 |
| Silver (Ag), ppb | Max 10 | Max 10 |
| Sodium (Na), ppb | Max 50 | Max 50 |
| Strontium (Sr), ppb | Max 20 | Max 20 |
| Tantalum (Ta), ppb | Max 10 | Max 10 |
| Thallium (Tl), ppb | Max 20 | Max 20 |
| Tin (Sn), ppb | Max 20 | Max 20 |
| Titanium (Ti), ppb | Max 20 | Max 20 |
| Vanadium (V), ppb | Max 10 | Max 10 |
| Zinc (Zn), ppb | Max 20 | Max 20 |
| Zirconium (Zr), ppb | Max 20 | Max 20 |
| Particle Count, 0.5 mm, ct/ml | Max 150 | Max 150 |
| Particle Count, 1.0 mm, ct/ml | Max 10 | Max 10 |

This product is for further commercial manufacturing, laboratory or research use, and may be used as an excipient or a process solvent for pharmaceutical purposes. It is not intended for use as an active ingredient in drug manufacturing nor as a medical device or disinfectant. Appropriate/legal use of this product is the responsibility of the user

22111 Highway 71 West, Suite 601, Spicewood, Texas 78669

Direct: 512-668-9918

www.laballey.com | customerservice@laballey.com