

## Certificate of Analysis



FUJIFILM Electronic Materials  
(Singapore) Pte.Ltd.  
14 Tuas Ave 20  
Singapore 638826  
Fax: (65) 3163 6667  
Tel: (65) 3163 6666

FORM NO. FRM-01888 Rev2

|                          |                       |                                |              |
|--------------------------|-----------------------|--------------------------------|--------------|
| <b>Description:</b>      | Hydrofluoric Acid 49% |                                |              |
| <b>Item Code:</b>        | 200-0135              | <b>Packaging Size</b>          | 1 GAL Bottle |
| <b>Batch No:</b>         | HF3004253038          | <b>Customer/FUJIFILM spec:</b> | KMG_3075.1   |
| <b>Manufacture Date:</b> | 30-Apr-2025           | <b>Customer Part Number:</b>   | NA           |
| <b>Expiry Date:</b>      | 30-Apr-2026           | <b>Grade:</b>                  | VLSI         |

| Parameter              | Min   | Max   | Unit | Result |
|------------------------|-------|-------|------|--------|
| Assay (HF)             | 48.80 | 49.20 | %    | 48.9   |
| Color                  |       | 7     | APHA | 5      |
| Fluosilicic Acid       |       | 50    | ppm  | <50    |
| Residue After Ignition |       | 5     | ppm  | <1     |
| Chloride (Cl)          |       | 500   | ppb  | <200   |
| Nitrate (NO3)          |       | 500   | ppb  | <200   |
| Phosphate (PO4)        |       | 500   | ppb  | <200   |
| Sulfate (SO4)          |       | 500   | ppb  | <200   |
| Aluminum (Al)          |       | 50    | ppb  | <1     |
| Antimony (Sb)          |       | 50    | ppb  | <1     |
| Arsenic (As)           |       | 50    | ppb  | <1     |
| Barium (Ba)            |       | 50    | ppb  | <1     |
| Beryllium (Be)         |       | 50    | ppb  | <1     |
| Bismuth (Bi)           |       | 50    | ppb  | <1     |
| Boron (B)              |       | 50    | ppb  | <1     |
| Cadmium (Cd)           |       | 50    | ppb  | <1     |
| Calcium (Ca)           |       | 50    | ppb  | <1     |
| Chromium (Cr)          |       | 50    | ppb  | <1     |
| Cobalt (Co)            |       | 50    | ppb  | <1     |
| Copper (Cu)            |       | 50    | ppb  | <1     |
| Gallium (Ga)           |       | 50    | ppb  | <1     |
| Germanium (Ge)         |       | 50    | ppb  | <1     |
| Gold (Au)              |       | 50    | ppb  | <1     |
| Iron (Fe)              |       | 50    | ppb  | <1     |
| Lead (Pb)              |       | 50    | ppb  | <1     |
| Lithium (Li)           |       | 50    | ppb  | <1     |
| Magnesium (Mg)         |       | 50    | ppb  | <1     |

| Parameter           | Min | Max | Unit   | Result |
|---------------------|-----|-----|--------|--------|
| Manganese (Mn)      |     | 50  | ppb    | <1     |
| Molybdenum (Mo)     |     | 50  | ppb    | <1     |
| Nickel (Ni)         |     | 50  | ppb    | <1     |
| Niobium (Nb)        |     | 50  | ppb    | <1     |
| Potassium (K)       |     | 50  | ppb    | <1     |
| Silver (Ag)         |     | 50  | ppb    | <1     |
| Sodium (Na)         |     | 50  | ppb    | <1     |
| Strontium (Sr)      |     | 50  | ppb    | <1     |
| Tantalum (Ta)       |     | 50  | ppb    | <1     |
| Thallium (Tl)       |     | 50  | ppb    | <1     |
| Tin (Sn)            |     | 50  | ppb    | <1     |
| Titanium (Ti)       |     | 50  | ppb    | <1     |
| Vanadium (V)        |     | 50  | ppb    | <1     |
| Zinc (Zn)           |     | 50  | ppb    | <1     |
| Zirconium (Zr)      |     | 50  | ppb    | <1     |
| 0.5µ Particle Count |     | 30  | par/ml | 8      |

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**Approved on:** 03-Jun-2025

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