



NEWAY SINOPHC TECH. LIMITED

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Certificate of Analysis (Silicon Etchant)

Issue Date: 22 FEB 2026 Quality Release Date: 22 FEB 2026

Product Name

Silicon Etchant 硅蚀刻剂

Product Information

Product Number SE-20260222
Batch Number SE-SH2026022201
Brand SIGALD
CAS Number N/A (Industrial grade composite etching mixture)
MDL Number N/A (No specific MDL for composite etching reagent)
Formula Blend of Hydrofluoric Acid, Ammonium Fluoride, Complexing Agent & Deionized Water
Formula Weight Variable (Composite inorganic mixture)
Form Colorless to pale yellow transparent corrosive liquid

Test Results

Test	Specification (Semiconductor & Photovoltaic Industrial Standard)	Result	Unit	Test Method
Appearance (Color/Form)	Colorless to pale yellow transparent liquid, no sediment	Conforms	-	Visual Inspection (25°C)
Etching Rate (Monocrystalline Si, 25°C)	8-15 $\mu\text{m}/\text{min}$	11.2	$\mu\text{m}/\text{min}$	Weight Loss Method
HF Content (as active ingredient)	8.0-12.0%	9.8	%	Potentiometric Titration
Ammonium Fluoride Content	4.0-6.0%	5.1	%	Ion Chromatography (IC)
pH Value (25°C)	1.0-2.0	1.5	-	Digital pH Meter (Corrosion-Resistant)
Density (25°C)	1.05-1.15 g/cm^3	1.09	g/cm^3	Pycnometer Method (HDPE)
Metal Impurity (Fe)	≤ 5 ppm	0.9	ppm	Inductively Coupled Plasma (ICP)
Metal Impurity (Cu)	≤ 3 ppm	0.5	ppm	ICP
Heavy Metals (Pb)	≤ 5 ppm	0.7	ppm	Atomic Absorption Spectrometry (AAS)
Water Insoluble Matter	$\leq 0.01\%$	0.003	%	Gravimetric Method (Filtration & Drying)
Storage Stability (24h, 25°C)	No phase separation, etching rate change $\leq \pm 5\%$	Conforms	-	Industrial Standard Test

Certification

This batch of product has been tested in accordance with the semiconductor and photovoltaic industrial standards for Silicon Etchant and meets all specified requirements. It is qualified for use in silicon wafer etching, semiconductor device processing and photovoltaic cell production.