

Brightchem Mixed Acid Etchant(MAE)

**VARIOUS GRADES AND
PACKAGING AVAILABLE**

BENEFITS

- Efficient logistics and supply
- Guarantees for a range of specifications for trace metals by in-house ICP-MS
- Multiple container sizes (25 L , 200 L , 1000 L)
- Container equipped with dip tube from AS Dusemund /CPC or other brand recommend by customer for closed system dispensing
- Own transport . Efficient logistics and supply
- Precisely control of individual acid concentration by advanced auto titration method

OVERVIEW

In the semiconductor industry, mixed acid etchants (MAEs) are crucial for etching silicon, both single and polycrystalline, and are typically composed of nitric acid (HNO₃), hydrofluoric acid (HF), phosphoric acid and acetic acid (HAc). MAEs are used for various etching applications, including doped silicon etching and isotropic etching of silicon. Determination of the acid concentration in mixed acid solutions is a critical quality control step for successful etching processes.

The type and concentration of individual acids used in MAE manufactured by Brightchem are tailored to customer specifications or specific applications

Specification	Units	Typical spec Guidelines		
		EL	VLSI	
Individual Acid Assay (wt %)	wt %	Customer Spec ± 0.5		
Color	APHA	< 10	< 10	
Bromide	ppm	< 1	< 0.5	
Chloride	ppm	< 1	< 0.5	
Phosphate	ppb	< 1000	< 500	
Sulfate	ppb	< 1000	< 500	
Sulfite	ppb	< 1000	< 500	
Aluminum	ppb	< 50	< 50	
Antimony	ppb	< 50	< 50	
Arsenic	ppb	< 10	< 10	
Barium	ppb	< 50	< 50	
Beryllium	ppb	< 100	< 50	
Bismuth	ppb	< 100	< 50	
Boron	ppb	< 100	< 50	
Cadmium	ppb	< 100	< 50	
Calcium	ppb	< 100	< 50	
Chromium	ppb	< 100	< 50	
Cobalt	ppb	< 100	< 50	
Copper	ppb	< 100	< 50	
Gallium	ppb	< 100	< 50	
Germanium	ppb	< 100	< 50	
Gold	ppb	< 100	< 50	
Iron	ppb	< 100	< 50	
Lead	ppb	< 100	< 50	
Lithium	ppb	< 100	< 50	
Magnesium	ppb	< 100	< 50	
Manganese	ppb	< 100	< 50	
Molybdenum	ppb	< 100	< 50	
Nickel	ppb	< 100	< 50	
Niobium	ppb	< 100	< 50	
Potassium	ppb	< 100	< 50	
Silver	ppb	< 100	< 50	
Sodium	ppb	< 300	< 50	
Strontium	ppb	< 100	< 50	
Tantalum	ppb	< 100	< 50	
Thallium	ppb	< 100	< 50	
Tin	ppb	< 100	< 50	
Titanium	ppb	< 100	< 50	
Vanadium	ppb	< 100	< 50	
Zinc	ppb	< 100	< 50	
Zirconium	ppb	< 100	< 50	

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