

CHROME MASK ETCHANT CE-5M

Chrome Mask Etchant CE-5M is a ceric ammonium nitrate /perchloric acid etching solution for all types of chrome plates. Etch rate will depend upon substrate chrome density and process conditions. In general, the etch time usually ranges from 15 to 55 seconds at room temperature (25 °C). The etchant can be supplied with an added surfactant (CE-5MS). Chrome Mask Etchant CE-5M is suitable for sub-micron photolithography applications.

Storage and Handling:

Store at room temperature away from direct sunlight, keep container sealed when not in use. This is an acid oxidizing solution and should be handled with caution. In case contact is made to eyes or skin, flush with large quantities of water and contact a physician if irritation persists.

Physical and Chemical Properties:

How do I increase the etch rate?	<ol style="list-style-type: none"> 1. The rate will approximately double with every 10 °C increase in temperature. 2. Increase the rate of stirring or agitation.
How do I reduce the etch rate?	Adding 1 part deionized water to 2 parts etchant will reduce the etch rate approximately 50%.
Do I need to dilute the etchant?	No, it is ready to use.
How do I reduce undercutting?	Increase the rate of stirring or agitation.
Appearance	Clear, orange
pH	Acidic
Etch Rate at 20 °C	50 Å/second
Etch Capacity (rate declines at ~70%)	65 g/gallon
Shelf Life	1 year
Storage Conditions	Ambient
Filtration	0.2 µm
Recommended Operating Temperatures	20-80 °C (30-40 °C most common)
Rinse	Deionized water
Photoresist Recommendations	KLT6000 Series, KLT 5300 Series, HARE SQT (SU-8 type), TRANSIST, or PKP Type II http://transene.com/semi/#photo
Select Compatible Materials	Au, oxide, nitride, Ti See http://transene.com/etch-compatibility/ for more details.
Select Incompatible Materials	Ni, Cu, Ru, Al, NiCr
Compatible Plastics	HDPE, PP, Teflon, PFA, PVC
Country of Origin	USA
Availability	Stock
Available Sizes	Quart, Gallon, 5 Gallon, 55 Gallon
Packaging	HDPE
Packing	4 gallons/case
Isotropy	Isotropic
Incompatible Chemicals	Flammables, combustibles, strong bases
Additional Information	Oxidizer