

## **NICHROME ETCHANT TFN**

### **DESCRIPTION:**

Transene Nichrome Etchantd TFN is a high purity system based on ceric ammonium nitrate. Nichrome Etchant TFN provides clean, precise etching of evaporated nichrome layers for the preparation of thin film circuits. High precision photomask etching is also accomplished using Nichrome Etchant TFN. Nichrome Etchant TFN contains semiconductor grade ingredients for ultra-high purity and is filtered to 0.2 microns to remove particulates.

### **APPLICATION:**

Nichrome Etchant TFN may be operated at room temperature or elevated temperature to increase etch rates. Rinsing with deionized water is suitable. Nichrome Etchant TFN is an improved formulation which etches more cleanly, eliminating the need for an intermediate rinse.

**PROPERTIES:**

How do I increase the etch rate?	<ol style="list-style-type: none"> <li>1. The rate will approximately double with every 10 °C increase in temperature.</li> <li>2. Increase the rate of stirring or agitation.</li> </ol>
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 40 °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	PKP Type II or HARE SQT (SU-8 type), <a href="http://transene.com/semi/#photo">http://transene.com/semi/#photo</a>
Select Compatible Materials	Au, Ti, oxide, nitride, Si See <a href="http://transene.com/etch-compatibility/">http://transene.com/etch-compatibility/</a> for more details.
Select Incompatible Materials	Al, Ni, Cu, NiCr
Compatible Plastics	HDPE, PP, Teflon, PFA, PVC
Country of Origin	USA
Availability	1-2 days
Available Sizes	Quart, Gallon, 5 Gallon, 55 Gallon
Packaging	HDPE
Packing	4 gallons/case
Isotropy	Isotropic
Incompatible Chemicals	Strong bases
Additional Information	---