TechniStrip[®] MLO 07

Photoresist Stripper



Advanced, High-Performance DMSO Based Stripper

Historically, NMP has been a solvent that is widely used for its powerful stripping performance for photoresist removal and metal lift-off. Following international EH&S revisions, labeling it a reproductive toxin, many companies are looking for replacements to traditional NMP based stripping processes.

Technic has shown that the use of proprietary formulations using DMSO as a foundation is the best option for delivering equivalent and sometimes improved performance over NMP.

TechniStrip[®] MLO 07 is a powerful DMSO based stripper that, in addition to its low toxicity, also provides many other benefits over NMP based strippers.

This unique chemistry can also be used for metal lift-off applications. Metal lift-off is an alternative patterning method for etching. Metal lift-off is used for hard to etch or inert metals like gold.

Features

- Improved performance over NMP in many applications
- Provides dissolution for many positive resists
- High material compatibility on Cu, Sn, Ag, alumina, magnetic alloys and organic substrates
- · Ideally suited for gold and other precious metal lift-off
- Formulated to minimize the formation of metal fragments during the lift-off process



Benefits

- Reduced cost of operation compared to NMP based products through process enhancement and extended bath life
- Elimination of exhausting harsh fumes from NMP
- Reduced defects by providing dissolution for a variety of resists and minimizing metal fragments during the lift-off process
- High material compatibility provides a wider processing window and ease of operation
- Enhanced safety for operators with a formulation that is NMP and TMAH free

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Metal Lift-Off Process

- 1. Substrate coated with resist
- 2. Develop resist to obtain desired pattern
- 3. Sputter or evaporate metal over entire wafer
- 4. Remove resist and "liftoff" excess metal with TechniStrip[®] MLO 07
- 5. Desired metal pattern is achieved



The low etch rate properties of TechniStrip[®] MLO 07 enables compatible photoresist stripping with many different material stacks.

Etch Rate (Static Immersion)	
Substrate	(Å/min @ 65°C)
AI (5% Cu)	< 2
Cu (PVD)	< 2
Cu (ECD)	< 2
Ni	< 1
Ta/TaN	< 1
Ti/TiN/TiW	< 1
Au, Sn, Ag	< 1
Thermal SiO ₂	< 1
Undoped Si	< 1



Silver Metal Lift-Off (Before and After)





NMP

90 minutes @ 65°C

Gold Metal Lift-Off (Before and After)





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