

# SQ Developer

## SU-8 Epoxy Photoresist Developer

### DESCRIPTION

SQ Series Developer is a solvent-based developer solution designed to cleanly develop SQ Series SU-8 epoxy photoresists, leaving vertical profiles with no Line Edge Roughness (LER). KemLab developer is fully compatible with other lithographic epoxies such as SU-8. SQ Series developer uses only electronic grade materials that are common to the microelectronics industry.

### ADVANTAGES

- Clean develop of SU-8 functional polymer photoresists
- Vertical Sidewall with no LER
- Direct replacement for SU-8 PGMEA developer

### PROCESSING GUIDELINES

SQ Series developer is designed for use with SU-8 functional polymer photoepoxies. Development can be performed with immersion, puddle or spray puddle. Thicker films benefit from refreshing developer during the develop step; such as with a double puddle. Gentle agitation during develop can increase developer refresh rates and shorten overall develop time. *Rinse* developer off substrate with isopropyl alcohol (IPA) and dry. The appearance of a hazy residue after rinse indicates incomplete development.

Epoxy Film Thickness	Develop (immersion)	# Baths / Puddles
< 2 $\mu\text{m}$	30 seconds	1
2 $\mu\text{m}$	1 minute	1
5 $\mu\text{m}$	1 minute	1
10 $\mu\text{m}$	2.5 minutes	1
25 $\mu\text{m}$	3.5 minutes	1
50 $\mu\text{m}$	6 minutes	2
100 $\mu\text{m}$	15 minutes	2
200 $\mu\text{m}$	25 minutes	3

### STORAGE

SQ Series developer is a combustible liquid. Avoid light and store in an upright airtight container at 4–21°C. Keep developer away from oxidizers, acids, bases and sources of ignition.

### HANDLING & DISPOSAL

Consult the SDS for handling and appropriate PPE. SQ Series developer contains a combustible liquid; keep away from ignition sources, heat, sparks and flames. This developer is compatible with typical waste streams used with photoresist processing. It is the user's responsibility to dispose in accordance with all local, state, and federal regulations.

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