



MSW2000 Polishing Slurry

DESCRIPTION

MSW2000 slurry is a metal polish slurry designed primarily for tungsten CMP polishing. It is supplied in a two- component system, consisting of an abrasive and a chemical solution, designed to facilitate the bulk chemical delivery to CMP application. When mixed, this slurry is 5.0% abrasive with a pH of 4.0 and is designed to have performance properties equal to or exceeding those of MSW1000 slurry.

KEY BENEFITS

MSW2000 slurry offers:

- Dual component package
- Good post-CMP TEOS surface
- Good tungsten-to-oxide selectivity
- Excellent bulk tungsten removal rate, >3,000 Å/min.
- Non-toxic ingredients at moderate pH
- Easy disposal

Typical Properties—Abrasive Component MSW2000A

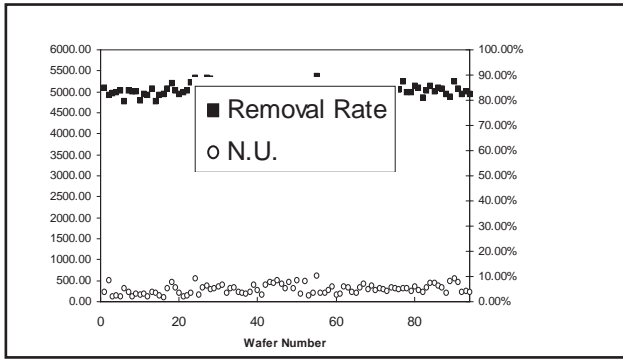
ELEMENTAL ANALYSIS				PHYSICAL PROPERTIES	
Element	ppb	Element	ppb		
Ca	5800	Mg	9500	Median Particle Diameter, nm	170
Cd	200	Mn	1000	Percent Alumina	28
Cr	1300	Na	3600	Specific Gravity @ 25°C	1.25
Co	150	Ni	2700	pH @ 25°C	3.9
Cu	1000	Ti	90000		
Fe	12000	Zn	4000		

Typical Properties—Chemical Solution Component MSW2000B

ELEMENTAL ANALYSIS				PHYSICAL PROPERTIES	
Element	ppb	Element	ppb		
Ca	400	Mg	400	Median Particle Diameter, nm	6.5
Cd	40	Mn	40	Specific Gravity @ 25°C	1.04
Cr	80	Na	80	pH @ 25°C	3.9
Co	80	Ni	400		
Cu	80	Ti	40		
Fe	150	Zn	80		



creating the
flawless surface



DISPENSING AND MIXING

MSW2000 is made by mixing MSW2000A (abrasive) and MSW2000B (chemical solution) at a ratio of 1:5.5 by volume (1:4.6 by weight). No other chemicals or water are required.

Agitate MSW2000A for at least 30 minutes prior to distribution to obtain a homogenous mixture. If the mixed, unopened MSW2000A is allowed to sit for more than a day, remix before using.

Open the container of MSW2000A and, while mixing, pour the correct amount of MSW2000B into the vessel. Continue mixing for another 15 minutes.

When the container is empty, use DI water to clean the equipment. Flush the transfer system to remove any remaining slurry solids prior to the next operation. Dispose of any post-polish slurry following the local regulations for waste material disposal.

MSW2000 is designed with an optimum pH range. Do not mix with any other agents or adjust pH without consulting Rohm and Haas Electronic Materials.

The thoroughly mixed MSW2000 is now ready for use. Do not leave slurry containers open for extended periods of time as this may result in evaporation of water and other components. Leaving containers open may also result in drying of the abrasive solids, which can cause scratching. Do not apply exhaust directly to the vapor space of the container above the slurry liquid level.

Rinse all transport lines, flow meters and other equipment after use and prior to exposing to air. This will prevent crystallization of the solids component and undesirable drying and buildup within the transport system. For best results, maintain storage in temperature controlled environments. Storage outside of the recommended conditions may result in irreversible product degradation. Products can be stored up to the expiration date between the temperature range of 10–43°C (50–109°F). Avoid prolonged exposure at temperatures at either extreme. Products can be stored outside of this range for up to 24 hours, provided they do not go below 10°C (50°F) or above 48°C (118°F). In the event of exposure outside of the recommended conditions, please contact our technical representative for recommendations. In all cases the products should be allowed to return to normal room temperatures prior to use.

STORAGE

Storage equipment should be made of polyethylene, polypropylene, PTFE, or other reinforced engineering plastic. Storage in aluminum, copper, brass, or PVC is not recommended. Tanks, piping and handling equipment can be cleaned with water to remove any deposits due to evaporation.

Avoid UV exposure.

Consult your representative for recommendations when designing equipment or handling systems.

PRECAUTIONARY NOTES Follow all MSDS and label precaution and use good industrial safety and hygiene practices when handling or using this product. Keep this and all industrial materials away from untrained personnel.

DISPOSAL

Dispose in accordance with applicable regulations.

UNITED STATES

Phoenix, Arizona
Tel: 602.431.0500
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Newark, Delaware
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Fax: 302.366.0187

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