



## TENSOR-DG SERIES

### CLEANING SOLUTIONS FOR IC MANUFACTURING

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TENSOR DG Series Products are aqueous detergents formulated to facilitate the removal of organic and inorganic films, combinations of films, particles and debris from the surface of the substrate. When the correct TENSOR DG Series Product is selected, corrosion/oxidation of films and/or interconnect structures is eliminated. These products are designed to be diluted with water at between 2-5% resulting in extremely safe, economical and environmentally sensitive solutions to difficult cleaning problems. TENSOR DG Series Products may be used in processes employing passivation rinses, brush cleaning, spray cleaning, ultrasonic and megasonic cleaning (heated or unheated). The products may be used in combination with existing cleans to make the process more robust. TENSOR DG Series applications include post-CMP, passivation rinses, CMP buff, post-etch/ash cleaning, post-etch/ash rinsing, and wherever surfaces need to be cleaned or rinsed prior to the additional processing.

#### Benefits:

- Superior wetting ability and corrosion/oxidation inhibition
- Free rinsing - leaves no film or residue
- Fully compatible with metal interconnect structures and packaging
- Safe and economical to use

#### Characteristics:

| <u>Product</u> | <u>pH @ 4%</u> | <u>Process Application</u> | <u>Suitable for Metal</u> | <u>Foam</u> |
|----------------|----------------|----------------------------|---------------------------|-------------|
| DG 12          | 11.8           | Ultra/Megasonic            | Barrier/Capacitor/ILD     | High        |
| DG 12-LF       | 12.0           | Ultra/Mega/Brush/Spray     | Barrier/Capacitor/ILD     | Low         |
| DG 12-LM       | 11.5           | Ultra/Mega/Brush/Spray     | Barrier/Capacitor/ILD     | Low         |
| DG 10          | 10.2           | Ultra/Megasonic            | Barrier/Capacitor/ILD     | High        |
| DG 10-LF       | 9.5            | Ultra/Mega/Brush/Spray     | Barrier/Capacitor/ILD     | Low         |
| DG 10-LM       | 10.3           | Ultra/Mega/Brush/Spray     | Barrier/Capacitor/ILD     | Low         |
| DG 7           | 6.5            | Ultra/Megasonic            | Cu/Al/W/ILD               | High        |
| DG7-LF         | 7.4            | Ultra/Mega/Brush/Spray     | Cu/Al/W/ILD               | Low         |
| DG 7-LM        | 5.9            | Ultra/Mega/Brush/Spray     | Cu/Al/W/ILD               | Low         |
| DG 7-Cu        | 7.0            | Ultra/Mega/Brush/Spray     | Cu/Al/W/ILD               | Med         |
| DG 7-Al        | 7.0            | Ultra/Mega/Brush/Spray     | Cu/Al/W/ILD               | Med         |
| DG 3           | 3.7            | Ultra/Megasonic            | Cu/Al/W/ILD               | High        |
| DG 3-LM        | 3.4            | Ultra/Mega/Brush/Spray     | Cu/Al/W/ILD               | Low         |

#### Directions:

It is recommended that evaluation of TENSOR DG Series Products begin at a dilution of 4% mixed with deionized (DI) water. The type and degree of residue to be removed varies from process to process and these factors will ultimately determine specific use instructions. Other factors to consider include wafer exposure time, temperature and equipment.

#### Additional Information:

Intersurface Dynamics manufactures 3 product lines, TENSOR, VECTOR and CHALLENGE Series Products. Visit our web site at [www.isurface.com](http://www.isurface.com) for more information.

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