

DuPont™ EKC4000™

Post Clean Treatment

Product Description

DuPont™ EKC4000™ post clean treatment (PCT) is a cost effective replacement that outperforms conventional “rinse” chemistries such as isopropanol alcohol (IPA) and N-methyl pyrrolidone (NMP). It quickly and effectively eliminates corrosion on the wafer surface caused by drag-out (carry over) of chemistry from prior wet cleaning. EKC4000™ PCT is compatible with automatic equipment and is formulated to meet Ultra Large Scale Integration (ULSI) grade specifications for advanced wafer treatment.

Key Properties

- Eliminates sources of corrosion
- Lower mobile and transition metal ions
- Ideal for <math><0.25\ \mu\text{m}</math> processing
- Eliminates SARA Title III chemistries
- Aqueous based, non-combustible and non-flammable
- pH of 4.2–4.4 removes mobile and transition metal “trash” ions from the surface
- Exceptionally high neutralization capacity
- Provides a route for repair of metal oxide damage
- Easy disposal via acid drains

Figure 1. Post Clean Treatment (PCT) Application Sequence

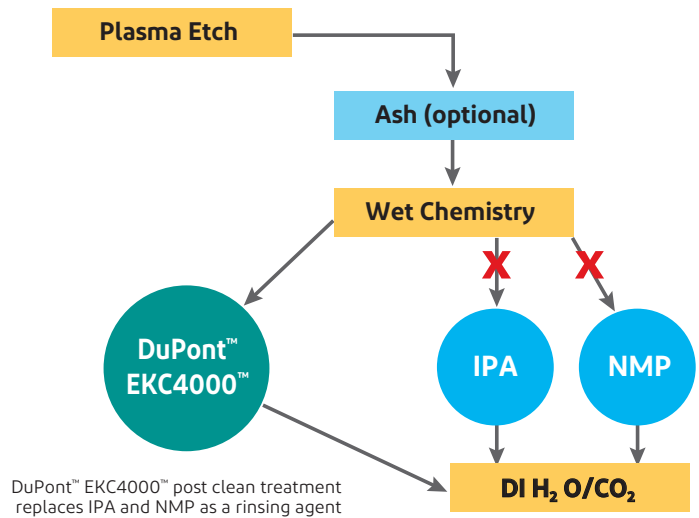
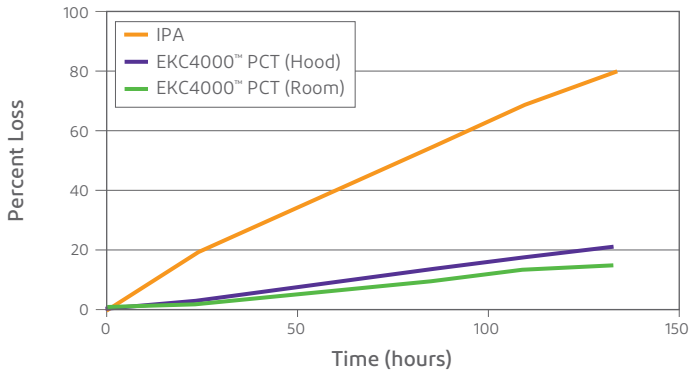
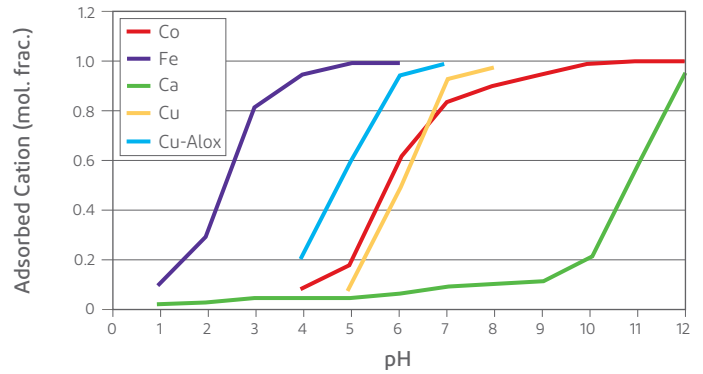


Figure 2. Evaporation Rate at 25 °C



DuPont™ EKC4000™ post clean treatment is much less volatile than other rinses, such as isopropanol (IPA). This results in improved cost of ownership in addition to improved performance.

Figure 3. Cation Adsorption on Silicon Oxide^{1,2}



The pH of EKC4000™ enables the removal of metal ion contamination from the wafer surface.

¹S. F. Cheah, PhD Dissertation

²K. B. Agashe, et al; J. Colloid & Inter. Sci.; 185, p174 (1997)



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For more information on DuPont™ EKC4000™ or other DuPont products, please visit our website.

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