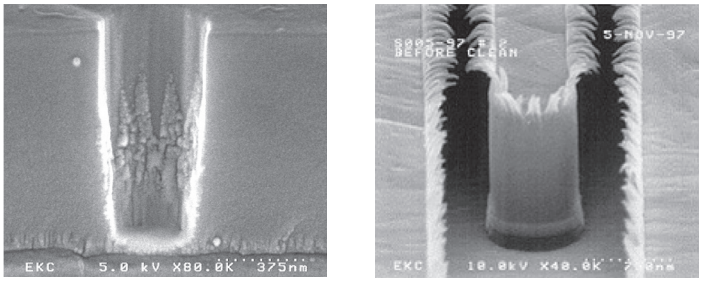
DuPont™ PlasmaSolv®

Post-Etch Residue Remover

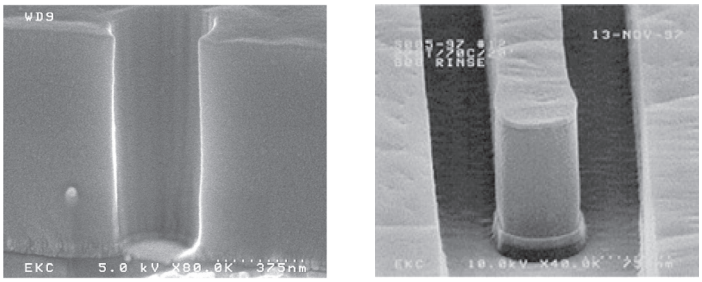
Made with HDA® technology to most effectively remove residue, increase yields and reliability

Product Description

DuPont™ PlasmaSolv® post-etch residue removers are made with HDA® high-performance hydroxylamine-based cleaning technology. HDA® technology comprises aqueous organic mixtures formulated to effectively remove residues from substrate surfaces after via, poly and metal etch processes used in the microelectronics industry. Effective cleaning after dry etch process steps helps achieve high manufacturing yields and more reliable semiconductor devices for the higher performance and lower power consumption needed for cell phones, games, computers and other electronic devices. DuPont™ PlasmaSolv® products perform at low operating temperatures, well below the flashpoint of the chemistries, providing a safe chemical process as well as extending bath life.



Before Clean



After Clean with DuPont™ PlasmaSolv® Post-Etch Residue Remover

DuPont™ PlasmaSolv® post-etch residue removers include:

EKC220™

This product is similar to EKC265™, but utilizes hydroxylamine more efficiently as a result of product optimization. Originally developed to address Ti undercut with a cost effective formulation.

EKC245™

Specifically designed to clean post-etch residues generated during the volume production of high capacity DRAM devices. Applications include residue removal post HBr-polysilicon etch and post metal etch.

EKC265™

The initial product in the Plasmasolv® series formulated to remove photoresist residue generated after via and metal etch processes. Effective with or without oxygen ash processing.

EKC270™

Post-etch residue remover with improved Ti compatibility. Formulated to remove ashed photoresist residue, organic polymer, and organometallic etch residue while maintaining optimum metal stack integrity.

EKC270™-T

Post-etch residue remover with improved compatibility for Ti, W and Al on polysilicon, metal and high aspect ratio vias. Specifically formulated to meet the needs of customers who require a single chemistry for multiple post-etch residue cleaning applications due to its robust process window.

Table 1. DuPont™ PlasmaSolv® Post-Etch Residue Remover Hydroxylamine (HDA®) Product Comparison

Product	Wet Bench and Spray Tool Compatibility	Process Temperature	Intermediate Rinse	Comments
EKC220™	Yes	65 °C	EKC4000™ IPA or NMP	Mildest of HDA® formulations, but still powerful enough to remove post plasma etch residue on vias and metal lines as well as photoresist.
EKC245™	Yes	65 °C	EKC4000™ IPA or NMP	Most powerful of HDA® formulations. Designed to remove tough post-etch residue on DRAM products and HBr etched polysilicon.
EKC265™	Yes	65 °C	EKC4000™ IPA or NMP	Industry leading HDA® formulation developed for the removal of post plasma etch residues on poly, vias and metal lines as well as organic (photoresist) residue.
EKC270™	Yes	70 °C	EKC4000™ IPA or NMP	Similar cleaning performance to EKC265™, but with better compatibility to sensitive metals like titanium.
EKC270-T™	Yes	70 °C	IPA or NMP	Powerful HDA® formulation developed for high volume foundry etch applications with compatibility to many sensitive metals.

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

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