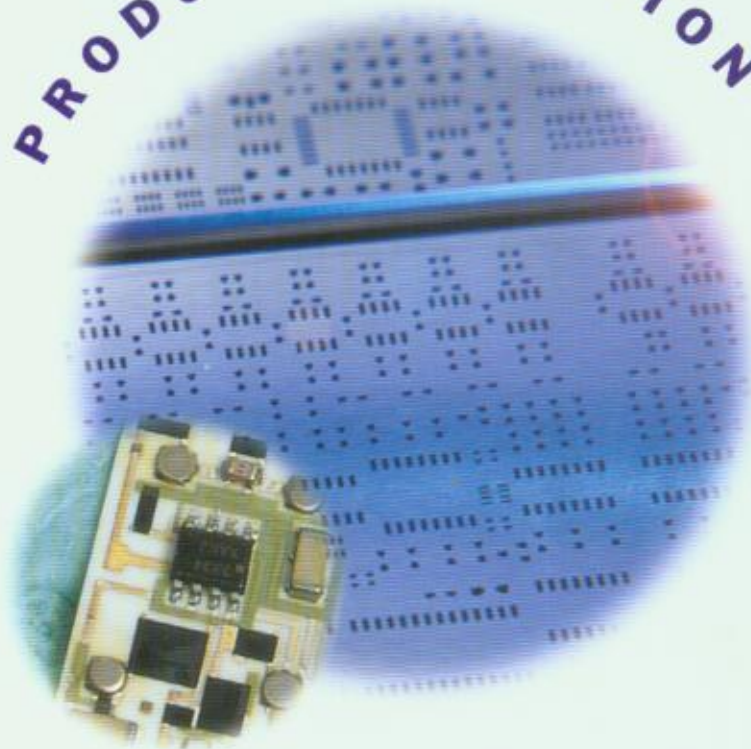


HYDREX™

PRODUCT SELECTION GUIDE

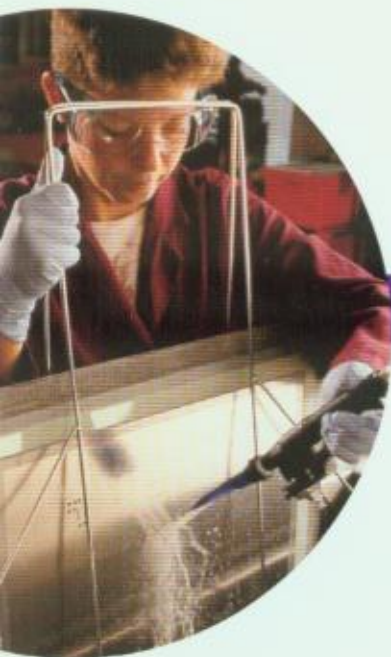


Petroferm

ULTRASONIC STENCIL CLEANING

HYDREX AC Aqueous Cleaner contains no Volatile Organic Compounds (VOCs) or solvents and is non-flammable, pH neutral and approved by California's South Coast Air Quality Management District (SCAQMD) as a Clean Air Solvent. It is used diluted in heated ultrasonic stencil cleaning equipment and effectively cleans rosin, no-clean, and water-soluble solder pastes and uncured SMD adhesives from stencils and misprinted boards. For ultrasonic stencil cleaning equipment without heat, HYDREX A-PLUS Aqueous Cleaner is the product of choice.

HYDREX A-PLUS Aqueous Cleaner is a unique high-performance detergent formulated for use in heated or unheated ultrasonic stencil cleaning equipment. Used in dilution, it quickly and effectively cleans rosin, no-clean, and water-soluble solder pastes and uncured SMD adhesives from stencils and misprinted boards. In use, HYDREX A-PLUS is low in VOCs, pH neutral and non-flammable.



SPRAY STENCIL CLEANING

HYDREX SP Aqueous Cleaner is a unique high-performance detergent formulated for use in heated or unheated spray stencil cleaning equipment. Used in dilution, it quickly and effectively cleans rosin, no-clean, and water-soluble solder pastes and uncured SMD adhesives from stencils and misprinted boards. In use, HYDREX SP is low in VOCs, pH neutral and non-flammable.

HYDREX WS Cleaner is formulated to offer safe, non-flammable cleaning in aqueous or solvent cleaning equipment. HYDREX WS is effective when used unheated or heated for removing uncured SMD adhesives and raw solder pastes from stencils and misprinted assemblies, as well as reflowed rosin, no-clean and water-soluble flux residues from circuit assemblies. Rinsing can be done with water or with HYDREX WS.

AQUEOUS DEFLUXING

HYDREX DX Aqueous Defluxer is a VOC-free, high-performance alkaline cleaner with exceptional wetting properties and detergency. HYDREX DX is well-suited for in-line or batch spray-in-air cleaning equipment, and also can be used in ultrasonic cleaning equipment. HYDREX DX is effective at removing reflowed rosin, no-clean and water soluble flux residues from circuit assemblies. It also cleans raw solder pastes from stencils and PWBs, and reflowed flux residues from "B" side misprints.

In addition to stencil cleaning, **HYDREX SP** also is effective at removing reflowed rosin, no-clean and water-soluble flux residues from circuit assemblies after soldering. This product can be used in batch spray-in-air cleaning equipment.



PROPERTIES AND APPLICATION NOTES

STENCIL/MISPRINT CLEANING

Product	Composition	Flash Point (in use, PMCC)	pH (10% in water)	Process	Operating Concentration in Water	Operating Temperatures
HYDREX AC	Detergent and Water	None	7	Heated Ultrasonic	10%	110°-120°F (43°-49°C)
HYDREX A-PLUS	Solvent, Detergent and Water	None	7	Heated or Unheated Ultrasonic	10%	75°-120°F (24°-49°C)
HYDREX SP	Solvent, Detergent and Water	None	7	Spray-In-Air	5% - 10%	75°-120°F (24°-49°C)
HYDREX WS	Solvent and Water	None	7	Spray or Ultrasonic	Use neat - do not dilute	75°-140°F (24°-60°C)
HYDREX DX	Saponifier	None	12	Heated or Unheated Ultrasonic	10%	75°-120°F (24°-49°C)

AQUEOUS DEFLUXING

Product	Composition	Flash Point (in use, PMCC)	pH (10% in water)	Process	Operating Concentration in Water	Operating Temperatures
HYDREX DX	Saponifier	None	12	In-Line or Batch Spray-in-Air	10% - 15%	140°-160°F (60°-71°C)
HYDREX SP	Solvent, Detergent and Water	None	7	Batch Spray-in-Air	10% - 20%	140°-160°F (60°-71°C)

EQUIPMENT SELECTOR

Product	Ultrasonic Stencil Cleaning	Spray Stencil Cleaning	Ultrasonic Defluxing	Spray Defluxing
HYDREX AC	✓			
HYDREX A-PLUS	✓		✓	
HYDREX SP		✓		✓
HYDREX WS	✓	✓	✓	✓
HYDREX DX	✓		✓	✓

ENVIRONMENTAL AND REGULATORY

	HYDREX AC	HYDREX A-PLUS	HYDREX SP	HYDREX WS	HYDREX DX
Ozone Depletion Potential (ODP)	Zero	Zero	Zero	Zero	Zero
Global Warming Potential (GWP)	Zero	Zero	Zero	Zero	Zero
Volatile Organic Compound (VOC) Content, at 10% in water	Essentially Zero	Less than 50 grams per liter	Less than 100 grams per liter	655 grams per liter (undiluted)	Essentially Zero
Significant New Alternatives Program (SNAP)	Approved	Approved	Approved	Approved	Approved
Hazardous Air Pollutants (HAP)	None	None	None	None	None
National Emission Standards for Hazardous Air Pollutants (NESHAP)	Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
Superfund Amendments and Reauthorization Act (SARA)	Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
Resource Conservation and Recovery Act (RCRA)	Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

CUSTOMER ASSISTANCE

For further product information, recommendations, samples or technical service, contact your Petroferm representative or Petroferm's Cleaning Products Division.

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