

Non-Flammable Non-Chlorinated

Critical Cleaning Solvent for Vapor Degreasing, Cold Wipe and Ultrasonic Cleaning



The right choice for critical cleaning



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Typical Cleaning Applications



Printed Circuit Board Cleaning

EnTron-CE (Critical Electronics) is specifically designed and highly effective for the removal of RMA and other organic fluxes, their residue and polar/non-polar contamination from Printed Circuit Boards in vapor degreasing applications. EnTron-CEW is recommended for cold wipe applications to remove these contaminants from PCB's. EnTron dries quickly and does not tarnish silver, copper or gold.

Precision Vapor Degreasing and Ultrasonic Cleaning of Complex Parts

EnTron's low surface tension, high evaporation rate and powerful solvency makes it ideal for removing contaminants from parts with blind holes and complex geometries or for batch cleaning multiple small parts in vapor degreasing and ultrasonic cleaning applications.





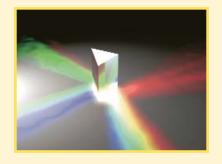
Cold Wipe Cleaning of Compressed Gas System Components, Electronic Assemblies, and NDT Dyes

EnTron-CW is ideal for cold wipe applications such as cleaning gas compressed system components and electronic assemblies where achieving a very high degree of cleanliness is essential. EnTron solvents will not harm metals, are compatible with many plastics and have a very high dielectric threshold.

Pre-Treatment of Critical Plating Parts and Post-Plating Masking Materials

EnTron solvents are highly effective for pre-cleaning critical parts to remove oils, greases, waxes, lubricants, adhesives, and fingerprints prior to plating. Post cleaning, EnTron is effective in removing high temperature masking waxes by vapor degreasing and ultrasonic cleaning.





Precision Optics

EnTron is highly effective for removing potting compounds, waxes, adhesives, fingerprints, polishes and other contaminants typical in the manufacture of precision optics.

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Designed for applications where achieving near absolute cleanliness is essential

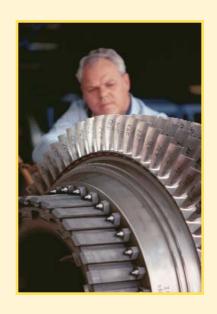


Superior Performance in the Most Critical of Cleaning Applications

Our EnTron Solvents are designed and manufactured to exacting standards and have virtually zero non-volatile residue content (<10ppm) making them an ideal solvent for critical wipe, flush, immersion and precision vapor degreasing and ultrasonic cleaning applications.

Outstanding Physical Characteristics and Simple to Use

- All EnTron Critical Cleaning Solvents are non-flammable, non-chlorinated, azeotropic, have high solvency on organic compounds (kb 129), achieve polar/non-polar cleaning with ease and are compatible with a broad range of substrates.
- EnTron's physical performance closely matches 1,1,1 TCA and in many instances will equal or outperform TCE, MC, 141b and many of the designer HFE and HCFC solvents in critical cold wipe, vapor degreasing and ultrasonic cleaning applications.
- EnTron solvents contain no HAP's (Hazardous Air Pollutants) and are not NESHAP regulated. They are not considered a hazardous material by the DOT. Additionally, spent EnTron is not a hazardous waste, so disposal is simple and cost effective using our EnTron Waste Disposal Program.





Critical Cleaning Expertise to Ensure Your Success

Whether your critical application is removing RMA flux from a PCB, cleaning precision parts with complex geometries, oxygen system components or another critical application, you will find that our Analytical Lab and Technical Support Team's training and experience in solvents, solvent equipment and industry specific critical applications is an invaluable resource. Our experts will be with you every step of the way, from validation testing to process optimization to production problem solving.

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Physical, Performance and Regulatory Properties

	Performance Properties:		
PERFORMANCE	Boiling Point	160° F / 71° C	
	Flash Point, ASTM D-56, D-92 and D-93	None	
	Evaporation Rate (n Butyl Acetate = 1)	4.5	
	Azeotropic Composition	Yes	
	Inhibited Against Metal Corrosion	Yes	
	Inhibited Against Hydrolysis	Yes	
	Kauri Butanol Value	129	
	Non-Volatile Residue, max.	10 ppm	
	Water Content, max.	150 ppm	

Technical Physical Properties:	
Specific Gravity, 25/25°C	1.33
Specific Heat, 25°C, cal/g	0.27
Latent Heat, cal/g	58.5
Viscosity, 25°C, cps	0.49
Vapor Pressure, 25°C (mm Hg)	139
Vapor Density (Air =1)	4.3
Water Solubility (g/100 ml)	0.25
Flammability Limits LEL/UEL	3% - 9.0%
Acid Acceptance, as NaOH, wt% min.	0.25
Alkalinity, as NaOH, wt % max.	0.02
Hansen Parameters: Non-Polar / Polar	17.9 / 5.8

Environmental, Regulatory and Health Profile:	
Global Warming Potential (GWP)	.00005
Ozone Depletion Potential (ODP)	0.016
Volatile Organic Compound (VOC)	Yes, exemption application is pending
Hazardous Air Pollutant	Not NESHAP Regulated
Transportation	Not regulated for Transportation
ASTM D6368-00	Base Material Conforms
Iso Propyl Bromide Content, max.	Meets ASTM D6368-00
IARC Cancer Classification	None – Not Listed
Workplace Exposure Guidelines	See MSDS

Put Us To The Test And Let Us Help! For more information, an EnTron sample, or to arrange for test cleaning of your parts at our facility, please contact us at 847.640.8923 or visit,

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TECHNICAL / PHYSICAL