

# Crystal

electronics inc.

## ELECTRONIC CLEANER (EC) Concentrated Cleaning Formula

### APPLICATIONS AND USES

Electronics Cleaner, (EC) concentrated cleaning formula is an ultrasonic cleaning solution which is an alkaline, low foaming, liquid detergent, specially formulated to remove oils, resins, rosins, and other typical soils from hard surfaces normally encountered in the electronic, plating and other related industries.

EC is an ideal cleaner for demanding applications in electronics cleaning. Because it contains no conductive metal cations, it cannot leave conductive residues. Once a part or assembly has been cleaned with EC, it stays clean. Its coupling ability keeps soils suspended in the cleaning solution preventing redeposition on cleaned material. In addition, it is not flammable and is corrosion inhibited.

EC cleaning solution meets the most demanding, critical cleaning requirements since it is an aqueous cleaner, with no ozone depleting potential, and low volatile organic content.

EC can also be used in a variety of electronic industry cleaning applications, including: cleaning during manufacturing assembly of infrared detectors, cleaning electronic contacts and leads, and cleaning ceramic insulators and components. Whether cleaning through-hole or surface mount boards, EC does the job effectively and economically.

### APPLICATIONS PROCEDURES

EC solution is to be slowly mixed with warm water in a concentration of 2-5% by volume. EC solution can be used at a temperature range from 130°-160°F (55-72°C) Optimum temperature is 140°.

For optimum cleaning, EC should be operated at recommended temperatures. Cleaning time is dictated by the quantity and nature of the soil and by the type. Operating EC below the recommended concentrations, temperatures, and times will generally result in poor cleaning performance, characterized by cloudiness and water breaks. Operating EC above the recommended concentration, temperature and time may cause component metal attack or cause the surfactants to separate from the solution causing poor cleaning. It is imperative that the solution "degas" at operating temperature for minimum of 10 minutes prior to introducing the parts into the cleaning solution. It is best if ultrasonic energy is applied during this time to enhance degassing. Thorough rinsing in one step must be undertaken for removal of cleaning solution. As with any process involving water, drying must be included as the final step.

The selection and use of the proper ultrasonic cleaning equipment and component fixturing will influence the cleaning efficiency and performance of EC.

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