

ALPHA[®] BC-2200

Aqueous Electronics Cleaner

DESCRIPTION

ALPHA BC-2200 is an aqueous board cleaner that is a hybrid technology of surfactant and select solvents. It is specially designed for optimum effectiveness on reflowed pastes, no-clean flux, lead-free flux, rosin flux, tacky flux, and uncured adhesives. **ALPHA BC-2200** is an extremely effective defluxer at high and low temperatures, can be diluted as needed, and is considered relatively benign and environmentally friendly. If extra cleaning efficiency is needed for more challenging cleaning situations, **ALPHA BC-2200** may be applied as received without damage to delicate substrates.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES & BENEFITS

- Effective on Lead-Free solder paste
- Creates brilliant solder joints
- Long bath life
- Excellent efficacy at low and high temperature
- Removes reflowed flux residues
- Removes SMT adhesives
- Low Foam
- Multi-Metal Safe
- No Sump-Side adds
- Low VOC
- No HAP's
- Safe on precious metals
- Effective on tacky fluxes
- Non-Flammable
- Low use cost

APPLICATION GUIDELINES
Suggested Process Parameters

Process Type	Concentration Range	Temperature Range	Rinse / Dry
Spray; In-line	5 to 30%	Ambient to 160 °F (71 °C)	DI/Air
Spray, Batch	5 to 30%	Ambient to 160 °F (71 °C)	DI/Air
Immersion, Agitation	5 to 100%	Ambient to 130 °F (54 °C)	DI/Air
Immersion, Soak	5 to 100%	Ambient to 130 °F (54 °C)	DI/Air
Immersion, Ultrasonics	100%	Ambient to 120 °F (49 °C)	DI/Air
Manual Wipe	5 to 100%	Ambient	Optional

The above conditions are meant to be starting ranges. Process parameters may be increased or decreased as needed depending on the specific parts and soils involved. Your Alpha Applications Engineer or Sales Representative can assist you in optimizing your process parameters.

Guidelines for Successful Use

- Effective at all temperatures, performance is optimum at 115 to 135 °F (46 to 57 °C).
- ALPHA BC-2200 should be used as received (100%) when used with ultrasonics.
- For a mirror finish on your solder bumps, rinse with deionized (DI) or reverse osmosis (RO) water.
- Dry parts with hot or circulating air.
- Concentration, temperature and time should be optimized for the parts and equipment involved.
- Lead-free and high temperature reflow soils may require higher concentrations for optimum effectiveness.

Application Notes
Rinsing and Drying:

- Use deionized (DI) or reverse osmosis (RO) water to minimize dendritic growth.
- Keep rinses fresh, monitoring by conductivity or resistivity. Recycle.
- Inspect nozzles and equipment regularly. Repair and maintain as needed.

Bath Life:

Bath life studies show high loading capacity. This equates to long tank life, low maintenance costs and reduced waste generation and chemical consumption.

Maintenance Methods:

ALPHA BC-2200 concentration should be monitored and maintained on a routine and regular basis depending on tank use. Your Alpha representative can assist you with this. Best results are obtained with Dropper Titration Test Kit available from Alpha. Refractive Index is an alternative, less reliable method for tank monitoring.

MATERIAL COMPATIBILITY

ALPHA BC-2200 is multi-metal safe for use on yellow metals, aluminum, ferrous and composites in addition to most precious metals. It is safe to use with PVDF, Kalrez[®], PTFE and ceramic elastomers and filters, while it is best used in polypropylene or stainless equipment.

PHYSICAL PROPERTIES

Category	Results	Category	Results
Appearance	Clear Amber Liquid	pH 100%	10.8 to 11.8
Odor	Mild Amine	pH 10%	9.9 to 10.9
Specific Gravity	1.04	VOC 10%	65 g/L
Weight/gallon	8.7 Pounds	VP of VOC Comp.	0.24 mmHg at 20°
Flash Point, °F	None to boiling	Water Solubility	Miscible
Boiling Point, °F/C	238/114	COD. 0.25% conc.	2650 ppm
Surface Tension 100%	22 to 36 dynes/cm	BOD 0.25% conc.	1470 ppm
Surface Tension 10%	22 to 36 dynes/cm		

AVAILABILITY

ALPHA BC-2200 is available commercially in one (1) gallon, five (5) gallon and 55 gallon or 25-liter containers.

SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available at AlphaAssembly.com**

STORAGE

All ingredients in this product are TSCA listed. It is a non-flammable, non-corrosive liquid containing 2-aminoethanol. Packaged in polyethylene containers with the seal unbroken, ALPHA BC-2200 has a suggested shelf-life of up to five years when stored at temperatures from 5 to 30 °C.

CONTACT INFORMATION

**To confirm this document is the most recent version, please contact
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www.macdermidalpha.com

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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