

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.

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

PHYSICAL PROPERTIES

<u>Appearance:</u>	Clear Amber Liquid	<u>pH 100%:</u>	10.0-11.0
<u>Odor:</u>	Mild Amine	<u>pH 10%:</u>	9.9-10.9
<u>Specific Gravity:</u>	1.04	<u>VOC, 7.7%:</u>	50 g/L
<u>Weight/gallon:</u>	8.7 pounds	<u>VP of VOC Comp.:</u>	0.24 mmHg at 20°C
<u>Flash Point, °F:</u>	None to boiling	<u>Water Solubility:</u>	Miscible
<u>Boiling Point, °F/C:</u>	238/114	<u>COD, 0.25% conc.:</u>	2650 ppm
<u>Surface Tension 100%:</u>	22-36 dynes/cm	<u>BOD, 0.25% conc.:</u>	1470 ppm
<u>Surface Tension 10%:</u>	22-36 dynes/cm		

GUIDELINES FOR SUCCESSFUL USE

- Effective at all temperatures, performance is optimum at 115-135°F (46-57°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.

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APPLICATION

Suggested Process Parameters:

<u>Process Type</u>	<u>Concentration Range</u>	<u>Temperature Range</u>	<u>Rinse/Dry</u>
Spray; In-line	5-30%	ambient-160°F (71°C)	DI/Air
Spray, Batch	5-30%	ambient-160°F (71°C)	DI/Air
Immersion, Agitation	5-100%	ambient-130°F (54°C)	DI/Air
Immersion, Soak	5-100%	ambient-130°F (54°C)	DI/Air
Immersion, Ultrasonics	100%	ambient-120°F (49°C)	DI/Air
Manual Wipe	5-100%	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 Cookson Electronics Applications Engineer or Sales Representative can assist you in optimizing your process parameters.

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[®], Teflon and ceramic elastomers and filters, while it is best used in polypropylene or stainless equipment.

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 Cookson Representative can assist you with this. Best results are obtained with Dropper Titration Test Kit available from Cookson Electronics. Refractive Index is an alternative, less reliable method for tank monitoring.

ENVIRONMENTAL, HEATH AND SAFETY

ALPHA BC-2200 is a biodegradable aqueous solution with less than 50 g/L VOC at 7.5%. It contains no CFC's or HAP's. It is non-flammable and non-corrosive. Refer to the Material Safety Data Sheet for more information.

STORAGE AND HANDLING

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 one year.

AVAILABILITY

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