



Technical Bulletin

Rinse Aid 2000

I. Description

Rinse Aid 2000 is a biodegradable, alkaline, organic concentrate used to assist in the removal of residues following soldering and fusing processes using fluxes. **Rinse Aid 2000** works without the use of silicone de-foamers.

II. Operating Parameters

Rinse Aid 2000 can be used in aqueous in-line spray cleaning or dip systems following wave soldering of printed circuit assemblies using water-soluble fluxes. In horizontal cleaning equipment, 1 to 3% of **RA2000** is added to the heated, re-circulating wash section to facilitate cleaning in penetrating crevices. **RA2000** also significantly reduces the ionic contamination on a printed circuit board either after hot air leveling or subsequent to wave soldering as the rinse aid helps to neutralize the acidic residues on the board. Washing with **RA2000** is always followed by thorough water rinsing to ensure removal of the dissolved flux residues and rinse aid from the board surface. If a high order of ionic cleanliness is desired, de-ionized water should be used in the final rinse.

III. Physical Properties

Values

Specific gravity	0.995
Appearance	Clear-light amber
pH (1% solution)	Basic
Flash Point	>200F

IV. Control Procedures

We recommend replacing the RA2000 bath when ionic contamination levels become unacceptable. The RA2000 bath should be replaced at least once per month. It is possible to analyze RA2000 through an acid-base titration. See the next section for the procedure.

V. Analysis

Concentration of RA2000:

1. Pipette a 2 mL sample of the working RA2000 bath into a titration flask.
2. Add 50-75 mL of D.I. water.
3. Add 3-5 drops of Bromophenol blue indicator.
4. Titrate with 0.1 N HCl from blue to yellow.
5. Calculation:

$$\text{Concentration of RA-2000 (\% vol.)} = (\text{mLs of HCl used}) \times (\text{N of HCl}) \times 5.32$$

An addition of 40 mL of RA2000 per gallon of bath will raise the concentration by 1.0%.

VI. Safety

In case of skin or eye contact, rinse or flush with plenty of water.

VII. Miscellaneous

Available in 5 gallon containers. Consult MSDS for additional information.

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