2120 Soldering Flux

Halide-Free, Organic Flux

Product Description

Kester 2120 Soldering Flux is a halide-free, 14% solids organic flux designed for automated soldering of circuit board assemblies. This flux provides good activity on both bare copper and solder coated boards. The absence of chlorides, bromides, phosphates and highly corrosive materials facilitates removal after soldering. 2120 produces bright, shiny solder joints and high ionic cleanliness after water cleaning.

Performance Characteristics:

- High activity
- Minimizes icicling and bridging
- Chemically compatible with most solder masks and board laminates
- High ionic cleanliness
- No surface insulation resistance degradation
- Excellent choice for surface mount boards
- Classified as ORH0 per J-STD-004
- Completely biodegradable for environmentally safe disposal of the wash water
- No offensive odors or excessive smoke emitted during soldering
- Will not create excessive foaming in standard water cleaning systems
- Provides better surface insulation resistance than typical water soluble fluxes, making it particularly suitable for surface mount assemblies

RoHS Compliance

This product meets the requirements of the Restriction of Hazardous Substances (RoHS) Directive, 2015/863 for the stated banned substances.

Physical Properties

Properties	2120 Flux	4662 Flux
Specific Gravity @25 °C	0.862 ± 0.005	0.786 ± 0.005
pH (neat) *	3.8	
Acid Number, mgKOH/gm	58.0 ± 3.0	
Halide Content	none	none
Phosphate Content	none	None

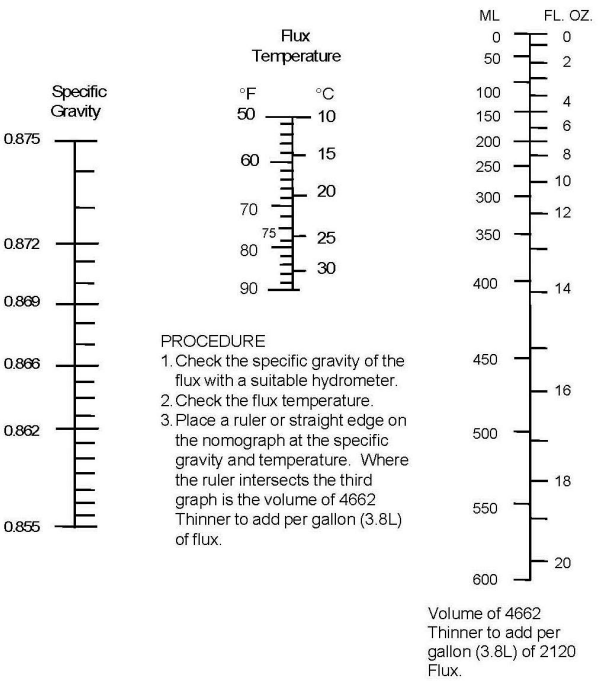
Properties	2120 Flux	4662 Flux
Sulfate Content	none	none
Flash Point (T.O.C.)*		65 °F (18 °C)
Autoignition temperature*		750 °F (399 °C)

*Typical values

Flux Application

The flux can be applied to circuit boards by use of spray, dip, wave or foam fluxing techniques. The flux is best applied with foam fluxing equipment. 2120 will provide a uniform head of small bubbles with low air pressure. The flux level should be maintained at about ½ inch (1.3 cm) above the stone in a foam fluxer. An air knife after the flux tank is recommended to remove excessive flux from the circuit board and prevent dripping on the preheater surface. Preheating to 180 to 220 °F (82 to 104 °C) on the top or component side of the printed circuit board is recommended to evaporate the solvent vehicle, bring the flux to its optimum activation state and maximize soldering performance.

Flux Control



PROCEDURE
1. Check the specific gravity of the flux with a suitable hydrometer.
2. Check the flux temperature.
3. Place a ruler or straight edge on the nomograph at the specific gravity and temperature. Where the ruler intersects the third graph is the volume of 4662 Thinner to add per gallon (3.8L) of flux.

Volume of 4662 Thinner to add per gallon (3.8L) of 2120 Flux.

Checking the specific gravity at regular intervals and adding the appropriate amount of Kester 4662 Thinner will assure consistent, controlled soldering results. Use of the Flux control nomograph simplifies determination of the correct amount of thinner to add to return the flux to its correct specific gravity.

Cleaning

No neutralizers, saponifiers or detergents are necessary in the water wash system for complete removal of flux residues. Deionized, distilled or softened tap water are recommended for cleaning. The optimum water temperature is 110 to 130 °F (43 to 54 °C).

Storage, Handling and Shelf Life

2120 is flammable. Store away from sources of ignition. Shelf life is 2 years from date of manufacture when handled properly and held at 10 to 25 °C (50 to 77 °F).

Health and Safety

This product, during handling or use, may be hazardous to your health or the environment. Read the Safety Data Sheet and warning label before using this product. Safety Data Sheets are available at https://www.kester.com/downloads/sds.

Contact Information

To confirm this document is the most recent version, please contact Assembly@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