

## 2120 Soldering Flux Halide-Free Organic Flux

# Product Description

Kester 2120 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

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

\*Typical values

# **Application Notes**



## ✓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. Kester 2120 will provide a uniform head of small bubbles with low air pressure. The flux level should be maintained at about ½ inch (1.3cm) 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 180-220°F (82-104°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



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 110-130° (43-54°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 10-25°C (50-77°F).

#### $\otimes$ 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.