BOW #60XS
Extra Strength, VOC-Free Organic Acid Flux

Product Description

Bow #60XS contains an amino acid-halide activator which starts to clean metals at room temperature, reaching peak fluxing activity at 260°C / 500°F, where it promotes excellent solderability. The broad range of activity makes **Bow #60XS** an ideal choice for high production rates or difficult metal surface conditions where an active, but safe, flux is required.

Features and Benefits

- Formulated for electronic, electrical, industrial, artisan, and aerospace applications, including:
    - Printed Circuit Boards (PCBs)
    - Wire, Cable, and Terminal Lead Tinning and Soldering
    - Flat and Round Wire Fabrication
    - Semiconductor and Component Lead Tinning
    - Stained Glass
- Used for Copper, Beryllium-Copper, Nickel, Alloy 42, Alloy 51, Brass, and some steels.
- Voc-Free formulation is non-hazardous and environmentally friendly.
- Conforms to IPC ANSI J-STD-004, Type ORM1.
- Broad activity range an excellent choice for Tin/Lead, Tin/Silver, Tin/Bismuth, and Indium solders alloys.

Applications

Bow #60XS can be used in dipping, spraying, brushing, swabbing, and many other fluxing operations. Soldering processes should include the following:

1. Remove any oil, grease, mold release, or other contaminants from the surface to be soldered.
2. Apply flux to joint by dipping, spraying, dragging, swabbing or brushing to area to be soldered.
3. Preheat or air-dry area to be soldered after flux has been applied to activate the flux and yield optimum soldering characteristics.
4. Apply solder, dip part, or place iron to area being soldered.
5. Clean flux residues from soldered area, using de-ionized, distilled, RO, and in some cases tap water heated to a temperature of 60ºC±5ºC/140ºF±10ºF for best results. Room temperature water may also be used.

Post-solder residues from **Bow #60XS** are self-neutralizing at soldering temperatures, owing to the unique flux chemistry. However, removal of the residues is imperative for electronic applications to prevent corrosion to sensitive joints and components and promote long-term reliability of assemblies. The residues and raw flux are completely water soluble and should be washed in an aqueous cleaning system using de-ionized or distilled water heated to a recommended temperature of at least 60ºC±5ºC/140ºF±10ºF. The addition of one gram of non-ionic surfactant to four (4) liters of water is recommended to reduce the wash water surface tension and make it a more effective cleaner. Each user must determine the best cleaning procedure to meet required specifications.

It is recommended that flux be changed in soldering processes using a flux pot at least once a week to maintain consistent flux performance and provide maintenance and cleaning of the flux pot. However, different environmental conditions may necessitate more frequent or less frequent flux changes to be determined by the end-user.

Bow #60XS can be diluted in a 1:1 ratio of water to flux to yield the standard strength formulation of Bow #60. It is recommended that De-Ionized, Distilled, or Reverse Osmosis (RO) water be used to dilute the flux, however tap water may be used.

Physical Properties

Specific Gravity	1.090 ± 0.005 @ 20-25°C
Color	Clear Blue Liquid
pH	0.925 ± 0.30
Chloride Content	25 – 55 g Chlorine/liter
Flashpoint	None
Recommended Solder Range	95-315°C / 200-615°F
Residues	Completely Water Soluble

Safety Precautions

Bow #60XS is a non-hazardous product, but should be treated as an industrial chemical. Store in plastic containers away from heat, sparks or open flame. Do not store or place flux in contact with metals.

When soldering with **Bow #60XS,** adequate ventilation should be provided to remove flux fumes along with vapors and fumes from hot solder. Avoid breathing vapors and contact with eyes, skin, and mucous membranes.

Bow #60XS has a two (2) year shelf life.

Refer to Material Safety Data Sheet (MSDS) for additional safety information.

Disposal

Bow #60XS is a VOC-Free flux containing organic activators. It has a water base that contains no alcohols, solvent, petroleum derivatives, or organic materials additives.

The following steps should be taken to effect proper disposal:

1. Measure out the amount of flux for disposal.
2. As a general rule, add soda ash in a 1 to 25 ratio of neutralizer to spent flux. This ration may differ depending upon pre-neutralization solids content and/or pH.
3. When the neutralization bubbling subsides, the solution may be flushed down the drain. The neutralized solution has a pH of 6 to 8. Use a pH meter or paper to determine the pH.

Consult local, state or federal EPA to determine local guidelines regarding disposal.

The information contained herein is based on data consideration to be accurate and is intended for use by persons having technical skills at their own discretion and risk. Since conditions of use are outside of Bow Electronics control, we cannot assume liability for results obtained or damage incurred due to misuse, nor can we assume customer liability.

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