



# BOW ELECTRONIC SOLDERS

## BOW #92 ZC-Free™, Zinc Chloride Free Flux

### Product Description

**Bow #92** is a water-based, organic acid flux that is entirely free of Zinc Chloride. It begins to clean metals at room temperature, reaching peak activity at 260<sup>0</sup>C/500<sup>0</sup>F, where it promotes excellent solderability on mild stainless steel, Copper, and non-ferrous alloys.

### Features and Benefits

- Contains no Zinc Chloride or Ammonium Chloride.
- A versatile organic acid flux that is VOC-Free and non-hazardous.
- Used in air-conditioning, automotive, heat exchangers, refrigeration, plumbing, industrial cable and wire tinning, and other industrial tinning applications.
- Excellent for all metals except aluminum and magnesium.

### Applications

**Bow #92** may be applied by brushing, swabbing, or dipping. Soldering should be carried out as soon as possible after applying flux. Air-drying or moderate preheating will reduce or eliminate spattering. Residues are water-soluble and can be cleaned completely using a hot (60°C/140°F) water rinse.

The following steps are recommended for optimum soldering results:

1. Remove any oil, grease, 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 and reduce or eliminate spattering.
4. Apply solder, dip part, place torch or 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 60°C±5°C/140°F±10°F for best results. Room temperature water may also be used.

### Physical Properties

Specific Gravity	1.040 ± 0.005 @ 20-25°C
Color	Clear Blue Liquid
pH	1.10 ± 0.30
Chloride Content	12.5 – 17.5 g Chlorine/liter
Acid Equivalent	0.60 – 1.00 g Chlorine/liter
Flashpoint	None
Recommended Solder Range	95-315°C / 200-615°F
Residues	Completely Water Soluble

## **Safety Precautions**

**Bow #92** 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 #92**, 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 #92** has a two (2) year shelf life.

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

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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