



SUPERIOR No. 40MM4-9302-9302



ORGANIC ACID WATER-SOLUBLE FLUX

- Specially formulated to combine cleaning and fluxing to tin badly oxidized copper and nickel surfaces on semi-conductor leads, component leads, diodes, wire, cable and piezo-electric parts.
- Promotes outstanding solderability on Copper, Kovar, Alloy 42, Alloy 51, electroless Nickel (EN), Beryllium Copper and other difficult to solder metals.
- Used in automatic solder dipping and linear tinning systems.
- Excellent flux for tin/lead and lead-free alloys.
- Flux conforms to IPC-ANSI-J-STD-004, Type ORM1.

DESCRIPTION

Superior No. 40MM4-9302 is an organic acid(OA), water-soluble flux that contains a unique amino-acid/halide activator which starts to clean metal surfaces at room temperature, reaching peak activity at 260°C/520°F, where it wets very effectively and promotes outstanding solderability to a wide variety of metals. It is a non-hazardous flux that helps make for an environmentally-friendly manufacturing process.

DIRECTIONS

Superior No. 40MM4-9302 is specially formulated for tinning component leads. Soldering should be carried out as soon as possible after flux application. Preheating of leads reduces spattering and solder ball formation. For optimum soldering results, the following steps should be taken:

- ❶ Remove any oil, grease, or mold-release from component leads to be soldered.
- ❷ Dip or drag component leads in flux.
- ❸ Preheat the leads prior to solder dipping to reduce or eliminate spattering and solder balls.
- ❹ Dip or drag components in solder at a level that allows upward solder wetting.
- ❺ Clean component leads in 60°C/140°F de-ionized or distilled water.

The flux is formulated for use as supplied; however, the specific gravity increases with prolonged use and should be monitored using a hydrometer. The flux and residues are completely water-soluble. Wash in an aqueous cleaning system, using hot (60°C/140°F) de-ionized or distilled water. A detergent or saponifier may be added if a cleaning process specifies its use, but these are not necessary for residue removal.

Superior manufactures quality fluxes. Our business is solving problems.



PHYSICAL PROPERTIES

Form	Clear Colorless Liquid
Specific Gravity	1.075 ± 0.15
pH	0.1-1.0 @ 20-25°C
Mv	340-400 @ 20-25°C
Spread Factor	80 minimum
Surface Tension	35 dynes/cm maximum
Flash Point	None
Freezing Effect	None
Inorganic Cation Content	None
Recommended Soldering Range	95-315°C/ 200-600°F
Residues	Completely Water Soluble

SAFETY PRECAUTIONS

Superior No. 40MM4-9302 flux 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.

Adequate ventilation is necessary to remove flux fumes along with vapors and fumes from hot solder. Avoid breathing vapors and contact with skin, eyes and mucous membranes. Store flux in an area with controlled temperature between 18°C/6°F – 25°C/77°F.

Superior No. 40MM4-9302 has a two (2) year shelf life.

Refer to the MSDS for additional safety information.

The information contained herein is based on data considered 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 Superior Flux & Mfg. Co.'s control, we cannot assume liability for results obtained or damage incurred due to misuse, nor can we assume customer liability.

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