



SUPERIOR NO. 465



HIGH ACTIVITY, ZINC-FREE BRASS TINNING FLUX

- Continuous Brass Tinning Flux for Copper and Brass Strip
- Excellent Rapid Oxide Removal Properties
- Zinc-Free and Ammonia-Free Formulation
- Can be Used for Tinning of Steel Wire and Hard-to-Solder Copper Alloys
- Does Complete Tinning of Strip or Wire Surfaces with a Single Pass
- Completely Water-based Formulation, No Solvents and No Alcohols

DESCRIPTION

Superior No. 465 is a zinc-free, metal halide / organic base - inorganic acid type flux. The fluxing ingredients of **Superior No. 465** flux offers a high degree of fluxing activity in the soldering and tinning temperature ranges for continuous brass strip and steel wire tinning. **Superior No. 465** leaves minimal, zinc-free residue in the tinning pot as the strip or wire is submerged during tinning.

APPLICATIONS

Superior No. 465 was formulated for continuous hot dip tinning of copper and brass strip. This formulation, fully concentrated, will also work for steel wire tinning. Normal flux application such as total immersion of the brass strip or steel wire in flux is recommended. Non-continuous applications will work by adding flux by part immersion or by brush.

DIRECTIONS

- ❶ **Superior No. 465** is normally applied at room temperature. It can be diluted up to six parts water to one part flux by volume.
- ❷ For continuous brass strip tinning a slight excess of flux on the surface is usually viewed as desirable prior to the entry into the molten tin pot.
- ❸ Post-tinning residues are minimal in a continuous tinning application and therefore usually do not need to be removed.
- ❹ In a non-continuous tinning operation, post-soldering residues are water-soluble and can normally be removed, if necessary, in a hot water wash of 60-80 °C/140-176 °F.

Superior manufactures quality fluxes. Our business is solving problems.



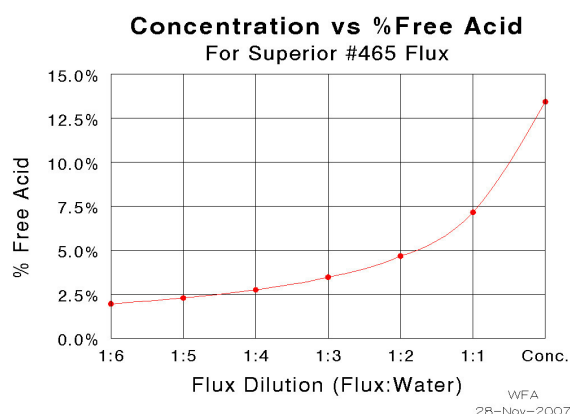
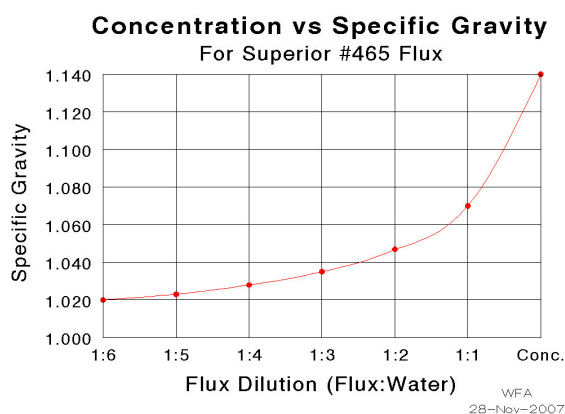
PHYSICAL PROPERTIES

Appearance	Clear, Colorless to Yellow
Specific Gravity	1.140 ± 0.010 @ 20-25°C/68-77°F
Density	9.5 Lbs./Gallon @ 20-25°C/68-77°F
Free Acid	13.5 ± 2.0% HCl
Surface Tension	32 dynes/cm minimum
Recommended Soldering Range	260-427°C/500-800°F
Odor	Medium to Sharp
Flash Point	None
Freezing Point	None

This Product is RoHS Compliant

PREPARATION and HANDLING

Superior No. 465 is shipped as a concentrate to be diluted of up to six parts water to one part flux by volume. For greater strength, lower dilution ratios should be used. Mix well when diluting and check specific gravity with a hydrometer before use. The solution will not separate on standing.



SAFETY PRECAUTIONS

Since **Superior No. 465** attacks many metals to some extent, it is recommended that polyethylene, PVC or fiberglass reinforced polyester containers be used. Any machinery or construction materials, which might be exposed to direct contact with the flux, should also be able to withstand acids.

This product, during handling or use, may be hazardous to health or the environment. Read the Material Safety Data Sheet and warning label before using this product.

Superior No. 465 has a two (2) year shelf life.

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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