



# SUPERIOR TWF



## TUBE WELD FLUX

- Formulated as a protective flux for tube welding applications.
- Residues are water-soluble.

### DESCRIPTION

**Superior TWF** is a creamy, white paste flux formulated to provide stainless steel being welded into to tube-form heat scale protection, lower oxide build-up during the welding process, and provide a cleaner post-weld seam.

### APPLICATIONS

**Superior TWF** combines a fine-particle-sized fluxing powder with an accelerated drying time to provide the most thorough flux coating on the stainless steel tubes being formed. All post-weld residues are water-soluble.

### PHYSICAL PROPERTIES

Form	Creamy Paste
Color	White
Specific Gravity	1.6
Water Content	Less than 35%
pH	8.3 ± 0.2
Flash Point	None
Freezing Effects	None
Active Temperature Range	540-870°C/1,000-1,600°F

**This Product is RoHS Compliant**

### SPECIFICATIONS

- AMS 3410
- AWS A5.3I-92, TYPE FB3A
- Federal Specification 0-F-499, Type B

*Superior manufactures quality fluxes. Our business is solving problems.*



## DIRECTIONS

**Superior TWF** may be used in concentrated form, as supplied, or diluted with water to a thinner consistency. Heating the flux to 60-82°C/140-180°F makes it less viscous and more reactive. Heat the flux slowly to reduce spattering or excessive bubbling. The raw flux and residues are soluble in hot water (at least 60°C/140°F). Chipping or grinding is not necessary.

- ➊ Remove any oil, grease, or other contaminants from the surface to be welded.
- ➋ Apply flux to joint by brushing or painting the outside surface area of the steel being welded into a tube-form. The flux may be used as supplied or diluted.
- ➌ Allow the flux 30-60 minutes, recommended time, to dry onto the surface and eliminate the water-content. This will prevent spattering during the welding process. In a high-humidity facility, a longer dry-time may be required.
- ➍ Apply quick heat by induction to the area being welded after flux has been applied to activate the flux and provide heat-scale protection and oxide removal for the weld-joint.
- ➎ Clean flux residues from brazed joint using hot water (60°C ± 5°C /140°F ± 10°F) for best results. If unavailable, room temperature water may also be used.

## SAFETY PRECAUTIONS

**Superior TWF** contains potassium bifluoride (CAS #7789-29-9) and potassium fluoborate (CAS #14075-53-7) and should be handled with care.

Avoid contact with skin, eyes or clothing, using NIOSH approved safety goggles, rubber gloves and rubber apron. As an added precaution, wash hands thoroughly after use. Brazing should be done with adequate ventilation.

Disposal of raw flux and flux residues must be carried out in accordance with local and federal environmental guidelines.

**Superior TWF** has a two (2) year shelf life when stored properly.

Refer to 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.

**Superior manufactures quality fluxes. Our business is solving problems.**



**Superior Flux  
& Mfg. Co.**

6615 Parkland Blvd. • Cleveland, OH 44139 • Phone: 440-349-3000 • Fax:  
440-349-3003 [www.superiorflux.com](http://www.superiorflux.com) • e-mail: [info@superiorflux.com](mailto:info@superiorflux.com)