## SUPERIOR TWL-18

## TUBE WELDING LIQUID FLUX

$>$ VOC-Free
> Water-Based
$>$ Boosts productivity, efficiency, and output for SS409 Tube Welding

## DESCRIPTION

Superior TWL-18 is a water-based, VOC-free liquid flux containing borates and fluorides. It is especially effective in dealing with the chromium oxides present on stainless steel 409 and 439 surfaces, as well as aluminized stainless steel, which interfere with the welding process. The flux dissolves and removes the original surface oxides, prevents re-oxidation in the weld box, and transfers weld heat to the seam.

## APPLICATIONS

Superior TWL-18 is designed to work effectively in tube welding of 409 and 439 stainless steels. In many cases, it reduces the need for argon gas in the weld box. It produces stronger welds, lower tube reject rates, reduced scarf scrap and lower electricity consumption.

## DIRECTIONS

Superior TWL-18 is sprayed on automatically and is relatively clean and non-polluting. When properly selected, installed and aimed, the spray system applies the right amount of flux, where it is needed, on both edge surfaces, as the strip feeds into the weld box.

## PHYSICAL PROPERTIES

Form
Specific Gravity
pH
Flash Point
Freezing Point
Boiling Point
Freezing Effects
Residues

Clear Liquid
1.110 @ $20-25^{\circ} \mathrm{C} / 68-77^{\circ} \mathrm{F}$
7.7 @ 20-25 ${ }^{\circ} \mathrm{C} / 68-77^{\circ} \mathrm{F}$

None
$-6^{\circ} \mathrm{C} /-42.8^{\circ} \mathrm{F}$
$106^{\circ} \mathrm{C} / 223^{\circ} \mathrm{F}$
None
Water-Soluble

## SAFETY PRECAUTIONS

Superior TWL-18 contains borates and fluorides and should be handled with care.
Avoid contact with skin, eyes or clothing. Wear NIOSH approved safety goggles, rubber gloves and rubber apron when handling. As an added precaution, wash hands thoroughly after use. Welding should be done in an area of adequate ventilation.

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

Superior TWL-18 has a two (2) year shelf life when stored properly.
Refer to SDS for additional safety information.

