

SAFETY DATA SHEET

SUPERIOR TWL-18

DATE REVISED: December 1, 2017

SECTION 1 -- IDENTIFICATION

Product Name/Part number: Superior TWL-18

Recommended use: Tube Welding Liquid Flux

Manufacturer: Superior Flux & Mfg. Co.
6615 Parkland Blvd
Cleveland OH, 44139

Emergency Contact: CHEMTREC
Emergency Phone: 1-800-424-9300
For other info: (440) 349-3000

SECTION 2 – HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with OSHA HCS (29 CFR 1910)

Corrosive to metals (Category 1)	H290
Skin corrosion (Category 1)	H314
Serious eye damage (Category 1)	H318
Acute oral toxicity (Category 3)	H335
Reproductive toxicity (Category 2)	H361

See below for full text of H-Statement

GHS Label Elements, including precautionary statements

Pictogram(s):



Signal Word: Danger

Hazard Statement(s)

H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child

**May be omitted from label due to presence of stricter statement.

Precautionary statement(s)

P261	Do not breathe mist, fumes, vapors, or spray
P264	Wash any exposed skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves, eye protection, and face protection
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340+P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor
P305+P351+P338+P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
P308+P313	If exposed or concerned: Get medical advice or attention
P403+P223	Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up
P501 Dispose of contents and/or container to an approved waste disposal plant
Hazards not otherwise classified or not covered by GHS: None

SECTION 3 – COMPOSITION INFORMATION

Components	CAS Number	%
Ammonium Bifluoride	1341-49-7	3-6
Sodium Tetraborate	1303-96-4	15-25

Unlisted percentages are non-hazardous stabilizers, and water.

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

- General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
- Inhalation:** If breathed in, move to fresh air. If not breathing, give artificial respiration. Consult a physician.
- Eyes:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.
- Skin:** Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
- Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most Important Symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in section 2 (labeling)

Medical Conditions Generally Aggravated by Exposure: Any weakness of the lungs, kidneys or liver will be aggravated.

SECTION 5 – FIREFIGHTING MEASURES

Suitable Extinguishing Media: No data available

Special Hazards: Will release small amounts of hydrofluoric acid

Special protective actions for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment and emergency procedures: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. *See section 8 for personal protection.*

Environmental Precautions: Prevent further leakage or spillage if safe to do so.

In Case Material is spilled: First, neutralize with soda ash or sodium bicarbonate. Dilute with water and place in container for disposal according to local regulations.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling: Avoid inhalation of vapor, fumes, or mist. Keep closed in a dry and well-ventilated place. Keep cool.

General Precautions: Do not eat, drink, or smoke while using this product. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

For full precaution statements see Section 2

Storage Requirements: Store in plastic containers in cool area. Keep container away from excessive heat.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS

OSHA Permissible Exposure Limit (PEL): 2.5 mg/m³

ACGIH Threshold Limit Value (TLV): 2.5 mg/m³

Engineering Controls: Use local exhaust ventilation to maintain air concentrations of vapors and fumes below occupational exposure standards.

Special Engineering Control Needs: No data available

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate, use a respirator with multi-purpose combination (USA) or ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).

Protective Gloves: Handle with gloves. (Nitrile Rubber recommended) Gloves must be inspected prior to use. Use proper glove removal techniques (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good lab practices. Wash and dry hands after handling.

Eye Protection: Use appropriately fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (USA) or EN 166 (EU)

Body Protection: Chemical resistant rubber apron if desired. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any

specific use scenario.

SECTION 9 - PHYSICAL AND CHEMICAL CHARACTERISTICS

Appearance	Clear to slightly hazy liquid
Odor	None
Odor threshold	No data available
pH	7.70
Melting point/Freezing point	-6°C/20°F
Initial boiling point and boiling range	106°C/223°F
Flash point	Not applicable
Evaporation rate	No data available
Flammability (Solid, gas)	Not applicable
Upper flammability or explosive limits	Upper explosion limit: Not applicable
Lower flammability or explosive limits	Lower explosion limit: Not applicable
Vapor pressure	No data available
Vapor density	No data available
Relative density (Water = 1)	1.110
Solubility(ies)	Miscible in water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
Viscosity	Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available

Stability: Product is stable under recommended storage conditions

Possibility of hazardous reactions: No data available

Conditions to Avoid: Excessive heat or cold, metals, strong oxidizers

Incompatibility: No data available

Hazardous Decomposition Products Small amounts of hydrofluoric acid, carbon oxides(Under fire conditions)

In the event of fire: See Section 5

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely Route(s) of Exposure: Inhalation, ingestion, skin and eye contact

Symptoms (Immediate and Chronic) from

Acute Exposure No data available

Prolonged or Repeated Exposure No data available

Measure(s) of toxicity

No data available

IARC: No component of this product is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product is present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential No data available

Mobility in soil No data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods

Product Offer surplus and non-recyclable solutions to a licensed disposal company.
Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging Dispose of as unused product.

SECTION 14- TRANSPORTATION

D.O.T. (USA)

Proper Shipping Name: Corrosive liquid, NOS (contains ammonium hydrogendifluoride)

Identification Number: UN1760

Hazard Class(es): 8

Packing Group: III

Reportable Quantity (RQ): 5,000

Special Precautions to Note:

Environmental Hazards: N/A

Type D.O.T. Label Required Information: Corrosive

SECTION 15 - REGULATORY INFORMATION

SARA 302 Components No Chemicals in this material are subject to the reporting requirement of SARA Title III, Section 302.

SARA 313 Components No chemicals in this material are subject to the reporting requirement of SARA Title III, Section 313.

SARA 311/312 Hazards Acute Health Hazard

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

THIS PRODUCT IS ROHS 2 COMPLIANT

SECTION 16 - OTHER INFORMATION

Further information:

Judgments as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. The above information does not represent any guarantee of the properties of the product. It is believed to be correct, but does not purport to be all inclusive and should be used only as a guide. Reasonable care has been taken in the preparation of this material, and is based on the present state of our knowledge.

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Preparation information

Superior Flux & Mfg. Co.
440-349-3000

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