

# SAFETY DATA SHEET

## SUPERIOR No. 142-5

DATE REVISED: November 22, 2017

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### SECTION 1 -- IDENTIFICATION

**Product Name/Part number:** Superior No. 142-5

**Recommended use:** Soft soldering flux

**Manufacturer:** Superior Flux & Mfg. Co. **Mfg. Phone No.** (440) 349-3000  
6615 Parkland Blvd  
Cleveland OH, 44139

**Emergency Phone No.:** 1-800-424-9300 (CHEMTREC)

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### 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
Acute toxicity, Oral (Category 4)	H302
Skin corrosion (Category 1B)	H314
Serious eye damage (Category 1)	H318
Specific target organ toxicity – Single exposure, Respiratory system (Category 3)	H335
Acute aquatic toxicity (Category 1)	H400
Chronic aquatic toxicity (Category 1)	H410

*See below for full text of H-Statements*

#### GHS Label Elements, including precautionary statements

##### Pictogram(s):



**Signal Word:** Danger

##### Hazard Statement(s)

H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318**	Causes serious eye damage
H335	May cause respiratory irritation
H400**	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

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

##### Precautionary statement(s)

P260	Do not breathe mist or fumes
P264	Wash skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P273	Avoid release to the environment
P280	Wear protective gloves, protective clothing, eye protection
P301+P312+P330	IF SWALLOWED: Call a POISON CENTER if you feel unwell. Rinse mouth
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

P304+P340+P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a 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 doctor

P363 Wash contaminated clothing before reuse.

P391 Collect spillage

P405 Store locked up

P501 Dispose of contents to an approved waste disposal plant.

**Hazards not otherwise classified or not covered by GHS:** None

### SECTION 3 – COMPOSITION INFORMATION

Components	CAS Number	%
Zinc chloride	7646-85-7	1-10
Hydrochloric acid	7647-01-0	1-10
Ammonium chloride	12125-02-9	1-10
Phosphoric acid	7664-38-2	1-5
Tin	7440-31-5	3-9

### 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:** 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)*

### SECTION 5 – FIREFIGHTING MEASURES

**Suitable Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special Hazards:** No data available

**Special protective actions for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary. Use water spray to cool unopened containers.

### 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. *See section 8 for personal protection.*

**Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**In Case Material is spilled:** Contain spillage, then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

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## **SECTION 7 - HANDLING AND STORAGE**

**Precautions for safe handling:** Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

For full precaution statements see Section 2

**Storage Requirements:** Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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## **SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

### **CONTROL PARAMETERS**

**OSHA Permissible Exposure Limit (PEL):** 200 ppm

**ACGIH Threshold Limit Value (TLV):** 200 ppm

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

**Respiratory Protection:** Where risk assessment shows air-purifying respirators are appropriate, use a full-face 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 supplied air 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:** Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (USA) or EN 166 (EU)

**Body Protection:** Impervious clothing, flame retardant antistatic protective clothing. 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.

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## SECTION 9 - PHYSICAL AND CHEMICAL CHARACTERISTICS

<b>Appearance</b>	Grey paste
<b>Odor</b>	None
<b>Odor threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting point/Freezing point</b>	60°C / -140°F
<b>Initial boiling point and boiling range</b>	No data available
<b>Flash point</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Flammability (Solid, gas)</b>	No data available
<b>Upper flammability or explosive limits</b>	Not applicable
<b>Lower flammability or explosive limits</b>	Not applicable
<b>Vapor pressure</b>	No data available
<b>Vapor density</b>	No data available
<b>Relative density</b>	0.98 (Water = 1)
<b>Solubility(ies)</b>	Soluble in water
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	No data available

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## 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, excessive cold, metals

**Incompatibility:** Alkalines, strong oxidizing or reducing materials, cyanides or combustible materials.

**Hazardous Decomposition Products** Hydrochloric acid, zinc chloride, zinc oxide, ammonium  
In the event of fire: See Section 5

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## SECTION 11 - TOXICOLOGICAL INFORMATION

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

**Acute toxicity** No data available

**Skin corrosion/irritation** No data available

**Serious eye damage/eye irritation** No data available

**Respiratory or skin sensitization** No data available

**Germ cell mutagenicity** No data available

### **Carcinogenicity**

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

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

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

**Reproductive toxicity** No data available

### **Specific target organ toxicity – Single exposure**

Respiratory system – May cause respiratory irritation

**Specific target organ toxicity – Repeated exposure** No data available

**Aspiration hazard** No data available

### **Additional information**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

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## SECTION 12 - ECOLOGICAL INFORMATION

### **TOXICITY**

**This material has not been tested for environmental effects**

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## **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.

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## **SECTION 14- TRANSPORTATION**

### **D.O.T. (USA)**

Non-hazardous

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## **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

### **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.

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## **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.

Superior Flux & Mfg. Co. shall not be held liable for any damage resulting from handling or from contact with the above product.

### **Reference(s):**

Sigma-Aldrich

### **Preparation information**

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

Version 2.1

Revision Date: 11/22/2017

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