

# SAFETY DATA SHEET

## SUPERIOR NO. 23

DATE REVISED: January 1, 2018

### SECTION 1 -- IDENTIFICATION

**Product Name/Part number:** Superior No. 23

**Recommended use:** Inorganic Acid Soldering Flux

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

**Mfg. Phone No.** (440) 349-3000

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

### 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 1A)	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-Statement*

#### GHS Label Elements, including precautionary statements

#### Pictogram(s):



**Signal Word:** Danger

#### Hazard Statement(s)

H290	May be corrosive to metals
H302	Harmful if swallowed
H318	Causes serious eye damage
**H314	Causes severe skin burns and 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 stronger statement.

#### Precautionary statement(s)

P260	Do not breathe mist, fumes, or vapors
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 clothing and face 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  
P403+405 Store in a well ventilated place and locked up  
P501 Dispose of contents and container to an approved waste disposal plant

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

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### SECTION 3 – COMPOSITION INFORMATION

Components	CAS Number	%
Zinc chloride	7646-85-7	30-68
Acetic acid	64-19-7	1-4
Hydrochloric acid	7647-01-0	1-6
Water	7732-18-5	30-60

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### 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)*

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### SECTION 5 – FIREFIGHTING MEASURES

**Flash Point:** NA

**Flammable Limits:** NA

**Extinguishing Media:** Dry chemical, CO<sub>2</sub> foam

**Auto Ignition Temperature:** None

**Special Fire Fighting Procedures:** Normal cautions when dealing with chemicals.

**Unusual Fire and Explosion Hazards:** Will release small amounts of HCl upon decomposition

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## 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. Remove all sources of ignition. Evacuate personnel to safe areas. *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:** First neutralize with soda ash or sodium bicarbonate, dilute with water and dispose of in accordance with EPA regulations.

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## SECTION 7 - HANDLING AND STORAGE

**Precautions for safe handling:** Avoid contact with skin and eyes.

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):** 2 mg/m<sup>3</sup>

**ACGIH Threshold Limit Value (TLV):** 2 mg/m<sup>3</sup>

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

**Special Engineering Control Needs:** NA

**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:** Use tightly 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:** Complete suit protecting against chemical, 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>	Clear to light green liquid
<b>Odor</b>	Vinegar
<b>Odor threshold</b>	No data available
<b>pH</b>	0-1.00 @ 20-25°C
<b>Melting point/Freezing point</b>	0°C / 32°F
<b>Initial boiling point and boiling range</b>	104°C / 220°F
<b>Flash point</b>	No data available
<b>Evaporation rate (Butyl Acetate = 1)</b>	< 1
<b>Flammability (Solid, gas)</b>	No data available
<b>Upper flammability or explosive limits</b>	No data available
<b>Lower flammability or explosive limits</b>	No data available
<b>Vapor pressure</b>	No data available
<b>Vapor density</b>	No data available
<b>Relative density</b>	1.320 (Water = 1)
<b>Solubility(ies)</b>	Soluble in water
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<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:** Metals

**Incompatibility:** Alkaline, strong oxidizers or reducers, cyanides or combustible materials

**Hazardous Decomposition Products** HCl, zinc chloride, zinc oxide

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

**Symptoms (Immediate and Chronic) from**

**Acute Exposure** No data available

**Prolonged or Repeated Exposure** No data available

**Measure(s) of toxicity**  
No data available

**Is this chemical listed in the National Toxicology Program (NTP) Report on Carcinogens?**  
No data available

**Is this chemical found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs or by the Occupational Safety and Health Administration (OSHA)** No data available

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## 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** **Hazard to ozone layer:** No data available

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## SECTION 13 - DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Product** 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.

**Proper Shipping Name:** Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Zinc Chloride, Hydrochloric Acid)

**Identification Number:** UN3264

**Hazard Class(es):** 8

**Packing Group:** III

Corrosive

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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** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 302 Components** Fire Hazard, Acute Health Hazard, Chronic 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**

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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):**

Zaclon – SDS for Product Zinc Chloride

### **Preparation information**

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

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