

SAFETY DATA SHEET

SUPERIOR No. 142-5

DATE REVISED: November 22, 2017

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)

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.

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.

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.

SECTION 9 - PHYSICAL AND CHEMICAL CHARACTERISTICS

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

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

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

SECTION 12 - ECOLOGICAL INFORMATION TOXICITY

This material has not been tested for environmental effects

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)

Non-hazardous

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.

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
