

# SAFETY DATA SHEET

## SUPERIOR NO. 317

DATE REVISED: May 17, 2018

---

### SECTION 1 -- IDENTIFICATION

**Product Name/Part number:** Superior No. 317

**Recommended use:** Soft Soldering 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)**

Flammable liquids (Category 2) H225

Eye irritation (Category 2) H319

Specific target organ toxicity – Single exposure; central nervous system, optic nerve, respiratory system (Category 1) H370

Specific target organ toxicity – Repeated exposure; kidney, liver, spleen, blood (Category 1) H372

*See below for full text of H-Statement*

**GHS Label Elements, including precautionary statements**

**Pictogram(s):**



**Signal Word:** Danger

**Hazard Statement(s)**

H225 Highly flammable liquid and vapor

H319 Causes serious eye irritation

\*\*H370 Causes damage to organs

H372 Causes damage to organs through prolonged or repeated exposure

\*\* Not included on label due to presence of more severe statement

**Precautionary statement(s)**

P210 Keep away from heat, sparks, open flames, and hot surfaces. No smoking.

P233 Keep container tightly closed

P240 Ground or bond container and receiving equipment

P241 Use explosion-proof electrical/ventilating/lighting/equipment

P242 Use only non-sparking tools

P243 Take precautionary measures against static discharge

P261 Avoid breathing mists, vapors, or spray

P264 Wash hands and any exposed skin thoroughly after handling

P270 Do not eat, drink, or smoke when using this product

P280 Wear protective gloves and eye protection

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction  
P403+P235 Store in a well ventilated place. Keep cool  
P405 Store locked up  
P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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

---

### SECTION 3 – COMPOSITION INFORMATION

Components	CAS Number	%
Ethanol	64-17-5	90-99
Carboxylic Acid	68937-69-9	1-10

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.

**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:** Use dry chemical, carbon dioxide, or alcohol-resistant foam

**Special Hazards:** Flammable. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Do not mix with strong oxidizing or dehydrating agents. Do not mix with strong oxidizing or dehydrating agents. Do not store in presence of oxidizing agents.

**Special protective actions for firefighters:** Wear protective clothing, including NIOSH-approved self-contained breathing apparatus

---

---

## 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:** Contain spillage, absorb with sawdust and place in container for disposal according to local regulations.

---

## SECTION 7 - HANDLING AND STORAGE

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

**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:** Keep container tightly closed in a cool and well-ventilated area. Keep away from heat, open flame, electrical sparks, or oxidizing agents.

---

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION CONTROL PARAMETERS

**OSHA Permissible Exposure Limit (PEL):** 1,000 ppm

**ACGIH Threshold Limit Value (TLV):** 1,000 ppm

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

**Special Engineering Control Needs:** Explosion proof and non-sparking electrical equipment

**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 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 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

<b>Appearance</b>	Clear liquid
<b>Odor</b>	Alcohol
<b>Odor threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting point/Freezing point</b>	-90°C / -130°F
<b>Initial boiling point and boiling range</b>	77°C / 170.6°F
<b>Flash point</b>	11.7°C / 53°F
<b>Evaporation rate (Butyl Acetate = 1)</b>	3.1
<b>Flammability (Solid, gas)</b>	Liquid, gas
<b>Upper flammability or explosive limits</b>	Upper explosion limit: 2%
<b>Lower flammability or explosive limits</b>	Lower explosion limit: 12%
<b>Vapor pressure</b>	42 mmHg
<b>Vapor density (Air = 1)</b>	1.4
<b>Relative density (Water = 1)</b>	0.815
<b>Solubility(ies)</b>	Soluble in water
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	398.9°C / 750°F
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	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:** Heat, sparks, and open flames

**Incompatibility:** Strong oxidizers

**Hazardous Decomposition Products** Carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>)

*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:** Alcohol, NOS (Contains Ethanol, Methanol)

**Identification Number:** UN1987 **Hazard Class(es):** 3

**Packing Group:** II **D.O.T. Label Req. Info:** Flammable Liquid

---

---

## 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** The following components are subject to reporting levels established by SARA Title III, Section 313

	<b>CAS No.</b>	<b>Revision Date:</b>
Ethanol	64-17-5	03/01/2007
<b>SARA 311/312 Hazards</b>	Acute Health Hazard, Flammable	

### 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.

Superior Flux & Mfg. Co. shall not be held liable for any damage resulting from handling or from contact with the above product. There are *NO WARRANTIES, NO REPRESENTATIONS AND NO RESPONSIBILITY AS TO THE ACCURACY OR THE SUITABILITY OF THIS INFORMATION FOR ANY PURCHASER'S USE OR FOR ANY CONSEQUENCE TO USE.*

### Reference(s):

Sigma-Aldrich – SDS for Ethanol

### Preparation information

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

Version 2.0

---