

SAFETY DATA SHEET

SUPERIOR NO. 312

DATE REVISED: August 3, 2017

SECTION 1 -- IDENTIFICATION

Product Name/Part number: Superior No. 312

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	85-99
Carboxylic Acid	68937-69-9	1-15

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

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

Incompatibility: Strong oxidizers

Hazardous Decomposition Products Carbon monoxide (CO), carbon dioxide (CO₂)

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

	CAS No.	Revision Date:
Ethanol	64-17-5	03/01/2007
SARA 311/312 Hazards	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
