SAFETY DATA SHEET
SUPERIOR NO. 312A

DATE REVISED: June 1, 2018

SECTION 1 -- IDENTIFICATION

Product Name/Part number: Superior No. 312A
Recommended use: Soft Soldering Flux
Manufacturer: Superior Flux & Mfg. Co.
6615 Parkland Blvd
Cleveland OH, 44139

Mfg. Phone No. (440) 349-3000
Emergency Phone:
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)

Flammable liquids (Category 2)	H225
Eye irritation (Category 2A)	H319
Specific target organ toxicity after single exposure – Central nervous system (Category 3)	H336

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
H336	May cause drowsiness or dizziness

Precautionary statement(s)

P210	Keep away from heat, sparks, hot surfaces, and open flames. No smoking.
P233	Keep container tightly closed.
P240	Ground container and receiving equipment.
P241	Use explosion-proof electrical, lighting and ventilation equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge
P264	Wash skin thoroughly after handling
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective clothing and face protection
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

(precautionary statements, continued)

P403+P235	Store in a well-ventilated place. Keep cool.
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	%
Isopropanol	67-63-0	90-99
Carboxylic acid	68937-69-9	1-10

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. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low 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, 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. Use explosion-proof equipment. Keep away from sources of ignition – No smoking. Take measures to prevent the build up for electrostatic charge.

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): 400 ppm
ACGIH Threshold Limit Value (TLV): 400 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, non-sparking equipment

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 an 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	Clear to faintly pink liquid
Odor	Alcohol-like
Odor threshold	No data available
pH	No data available
Melting point/Freezing point	-89.5°C / -129°F
Initial boiling point and boiling range	81-83°C / 177.8-181°F
Flash point	12°C / 53.5°F (closed cup)
Evaporation rate	3.0
Flammability (Solid, gas)	No data available
Upper flammability or explosive limits	Upper explosion limit: 12.7% (V)
Lower flammability or explosive limits	Lower explosion limit: 2% (V)
Vapor pressure	43 hPa (32.5 mmHg) at 20°C / 68°F 59 hPa (44.0 mmHg) at 25°C / 77°F
Vapor density (Air = 1)	Approx 2.07
Relative density	0.800 (Water = 1)
Solubility(ies)	Miscible in water
Partition coefficient: n-octanol/water	log Pow: 0.05
Auto-ignition temperature	425°C / 797°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: Vapors may form explosive mixture with air
Conditions to Avoid: Heat, sparks and flames
Incompatibility: Oxidizing agents, acid anhydrides, aluminum, halogenated compounds, acids
Hazardous Decomposition Products Carbon oxides (Under fire conditions)
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

Additional information

Central nervous system depression, prolonged or repeated exposure can cause: nausea, headache, vomiting, narcosis, drowsiness. Overexposure may cause mild, reversible liver effects. Aspiration may lead to: lung edema, pneumonia. (Isopropanol)

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

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 Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. 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: Isopropanol

Identification Number: UN1219

Hazard Class(es): 3

Packing Group: II

Reportable Quantity (RQ): 5,000 lbs

Special Precautions to Note:

Environmental Hazards

Poison Inhalation Hazard? No

Marine Pollutant? No

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:

Component	CAS No.	Revision Date
2-Propanol	67-63-0	01-01-1987

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.

Preparation information

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