SAFETY DATA SHEET
SUPERIOR No. 80

DATE REVISED: January 31, 2018

SECTION 1 -- IDENTIFICATION

Product Name/Part number: Superior No. 80
Recommended use: Waver Soldering Foam 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)

Flammable liquids (Category 2)	H225
Acute toxicity, Oral (Category 4)	H302
Skin corrosion (Category 1B)	H314
Serious eye damage (Category 1)	H318
Specific target organ toxicity after single exposure – Central nervous system (Category 3)	H336
Carcinogenicity (Category 2)	H351
Specific target organ toxicity after repeated exposure (Category 2)	H373
Acute aquatic toxicity (Category 3)	H402
Chronic aquatic toxicity (Category 3)	H412

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
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H373	May cause damage to organs through long-term or repeated exposure.
**H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects.

***May be omitted from label due to presence of stricter or more severe statement(s)*

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

P261	Avoid breathing dust, fumes, mist, vapors, or spray
P264	Wash skin thoroughly after handling
P270	Do not eat, drink, or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective clothing and face protection
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 or shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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 a POISON CENTER or doctor.
P312	Call a POISON CENTER if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice
P337+P313	If eye irritation persists: Get medical advice or attention
P362	Take off contaminated clothing and wash before reuse.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
P403+P233+P235	Store in a well-ventilated place. Keep container tightly closed. 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	75-95
Dimethylammonium Hydrochloride	506-59-2	2-6
Hydrobromic acid	10035-10-6	1-5
Alkanolamine	111-42-2	1-5

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.

In Case Material is spilled: Contain spillage, absorb with sawdust, 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 vapors, fumes, or mist. Use explosion-proof equipment. Keep away from sources of ignition and oxidizing agents – No smoking. Take measures to prevent the build up for electrostatic charge.

For full precaution statements see Section 2

Storage Requirements: Store in plastic containers, 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): 10 mg/m^3

ACGIH Threshold Limit Value (TLV): 10 mg/m^3

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, colorless to light yellow liquid
Odor	Alcohol
Odor threshold	No data available
pH	No data available
Melting point/Freezing point	No data available
Initial boiling point and boiling range	82°C / 178ºF
Flash point	18.3ºC / 65ºF (closed cup)
Evaporation rate	No data available
Flammability (Solid, gas)	No data available
Upper flammability or explosive limits	Upper explosion limit: 12%
Lower flammability or explosive limits	Lower explosion limit: 2%
Vapor pressure	No data available
Vapor density (Air = 1)	2.3
Relative density (Water = 1)	0.840 @ 20-25ºC
Solubility(ies)	Miscible in water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	398.9°C / 750ºF
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, strong 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

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

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.

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

SECTION 12 - ECOLOGICAL INFORMATION

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

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

D.O.T Label Required Information: 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:

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