

SAFETY DATA SHEET

SUPERIOR NO. 312-AM2

DATE REVISED: April 8, 2020

SECTION 1 -- IDENTIFICATION

Product Name/Part number: Superior No. 312-AM2

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 liquid (Category 2) | H225 |
| Skin irritant (Category 3) | H316 |
| Eye irritation (Category 2A) | H319 |
| Specific target organ toxicity – Single exposure, central nervous system, optic nerve, respiratory system (Category 1) | H370 |
| Specific target organ toxicity – Repeated exposure, kidney, live, spleen, blood (Category 1) | H372 |
| Acute aquatic toxicity (Category 2) | H401 |
| Chronic aquatic toxicity (Category 4) | H413 |

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 |
| H316 | Causes mild skin irritation |
| H319 | Causes serious eye irritation |
| H370 | Causes damage to organs |
| H372 | Causes damage to organs through prolonged or repeated exposure |
| H401 | Toxic to aquatic life |
| H413 | May cause long lasting harmful effects to aquatic life |

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, and equipment |
| P242 | Use only non-sparking tools |
| P243 | Take precautionary measures against static discharge |
| P261 | Avoid breathing fumes, mists, vapors, or spray |
| P262 | Do not get in eyes, on skin, or on clothing |
| P264 | Wash hands and any exposed 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, and eye/face 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. |
| P308+P313 | If exposed or concerned: Get medical advice or attention. |
| P370+P378 | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction |
| P337+P313 | If eye irritation persists: Get medical advice or attention |
| P370+P378 | In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam to extinguish |
| P403+P235 | Store in a well ventilated place. Keep cool |
| P405 | Store locked up |
| P501 | Dispose of contents and/or 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 | 80-90 |
| Mineral spirits | 8032-32-4 | 10-20 |
| Tetrahydrofurfuryl alcohol | 97-99-4 | 4-12 |
| Carboxylic acid | 68937-69-9 | 2-10 |

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.

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 cool 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): 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.

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 | 12°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) | Miscible 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 No data available

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 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 3 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.

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Reference(s):

Sigma-Aldrich – SDS formatting

Preparation information

Superior Flux & Mfg. Co.

440-349-3000
