SAFETY DATA SHEET SUPERIOR NO. 32

DATE REVISED: April 9, 2020

SECTION 1 -- IDENTIFICATION

Product Name/Part number: Superior No. 32

Recommended use: General Purpose, VOC-Free Organic Acid 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)

Acute toxicity, Dermal (Category 4)H312Serious eye damage (Category 2B)H320

See below for full text of H-Statement

GHS Label Elements, including precautionary statements

Pictogram(s):



Signal Word: Warning

Hazard Statement(s)

- H312 Harmful in contact with skin
- H320 Causes eye irritation

Precautionary statement(s)

| SECTION 3 – COMPOSITION INFORMATION | | | | |
|-------------------------------------|-----------|-----------|-------|--|
| Components | CAS No. | EC No. | % | |
| Glutamic acid hydrochloride | 138-15-8 | 205-315-9 | 1-5 | |
| Water | 7732-18-5 | 231-791-2 | 95-99 | |

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

| General: | If you feel unwell, seek medical advice. Show this safety data sheet where |
|-------------|--|
| | possible. Never give anything by mouth to an unconscious person. |
| Inhalation: | If breathed in, move to fresh air. If not breathing, give artificial respiration. Get medical advice. |
| Skin: | Take off contaminated clothing and shoes. Wash off with soap and plenty of water. Consult a physician. Wash contaminated clothing before reuse. |
| Eyes: | Rinse cautiously with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. 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 |

<u>Most Important Symptoms and effects, both acute and delayed</u> The most important known symptoms and effects are described in section 2 (labeling)

SECTION 5 – FIREFIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Special Hazards: Product is not flammable, nor is it explosive. Hazardous reactions will not occur under normal condition.

(Special) Advice for Firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment and emergency procedures: Use personal protective equipment. Avoid breathing vapors or mist. Ensure adequate ventilation. 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: Clear up spills immediately and dispose of waste safely. Keep and place in suitable, closed containers for disposal according to local regulations.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling: Avoid formation of aerosols. Provide appropriate exhaust ventilation at places where mist or fumes are formed.

For full precaution statements see Section 2

Storage Requirements: Keep container tightly closed in a dry, cool, and well-ventilated area. Keep container closed when not in use.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION CONTROL PARAMETERS

- **OSHA Permissible Exposure Limit (PEL):** Mixture contains no substances with occupational exposure limit values.
- ACGIH Threshold Limit Value (TLV): Mixture contains no substances with occupational exposure limit values.
- **Engineering Controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.
- **Eye/Face Protection:** Safety glasses or safety goggles Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
- **Skin Protection:** Handle with gloves. 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.
- **Body Protection:** The type of protective equipment must be selected according to the concentration and amount of the substance at the specific workplace.
- **Respiratory Protection:** Respiratory protection not required. For nuisance exposures, use type OV/AG (US) or type ABEK (EU EN14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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 | Blue liquid |
|---|-------------------|
| Odor | Citrus |
| Odor threshold | No data available |
| рН | 1.125 ± 0.375 |
| Melting point/Freezing point | 0°C/32°F |
| Initial boiling point and boiling range | 104°C/220°F |
| Flash point | Not applicable |
| Evaporation rate (Butyl Acetate = 1) | 0.9 |
| Flammability (Solid, gas) | Not applicable |
| Upper flammability or explosive limits | Not applicable |
| Lower flammability or explosive limits | Not applicable |
| Vapor pressure | No data available |
| Vapor density (Air = 1) | No data available |
| Relative density (Water = 1) | 1.040 ± 0.010 |
| Solubility(ies) | Miscible in water |
| Partition coefficient: n-octanol/water | No data available |
| Auto-ignition temperature | Not applicable |
| Decomposition temperature | Not applicable |
| Viscosity | Not applicable |
| | |

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: Will not occur under normal conditions

Stability: Product is stable under recommended storage and handling conditions

Possibility of hazardous reactions: Hazardous polymerization will not occur

Conditions to Avoid: No data available

Incompatibility: Strong oxidizers

(Hazardous) Decomposition Products

Hazardous decomposition products formed under fire conditions. Carbon oxides (CO, CO₂),

Nitrogen oxides (NO_x), small amounts of hydrogen chloride gas.

Other decomposition products: No data available

In the event of fire: See Section 5

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely Route(s) of Exposure: Inhalation, ingestion, skin and eye contact

Acute Toxicity: No data available

Skin Corrosion/Irritation: No data available

Serious Eye Damage/Irritation: No data available

Respiratory or Skin Sensitization: No data available **Germ Cell Mutagenicity**: Not classified **Carcinogenicity**:

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product 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 present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): No data available Specific Target Organ Toxicity (Repeated Exposure): No data available Aspiration Hazard: Not classified

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

SECTION 12 - ECOLOGICAL INFORMATION

| No data available |
|--|
| No data available |
| No data available |
| No data available |
| PBT/vPvB assessement not available as chemical |
| safety assessment not required/not conducted |
| 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. Show them this safety data sheet.

| Contaminated packaging | Dispose of as unused product. |
|------------------------|-------------------------------|
|------------------------|-------------------------------|

| SECTION 14- TRANSPORTATION | | |
|----------------------------|---------------------|--|
| D.O.T. (US) | Not dangerous goods | |
| IMDG | Not dangerous goods | |

| IMDG | Not dangerous goods |
|------|---------------------|
| IATA | Not dangerous goods |

SECTION 15 - REGULATORY INFORMATION

| SARA 302 Components | No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. | |
|-----------------------------|---|---|
| SARA 313 Components | This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. | |
| SARA 311/312 Hazards | Acute health hazard | |
| Massachusetts Right to Kn | ow Components | No components are subject to the |
| | | Massachusetts Right to Know Act. |
| Pennsylvania Right to Kno | w Components | |
| Compone | ent(s) | CAS No. |
| Glutamic acid | d hydrochloride | 138-15-8 |
| New Jersey Right to Know | Components | |
| Compone | ent(s) | CAS No. |
| Glutamic acid | d hydrochloride | 138-15-8 |
| California Proposition 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. 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

Preparation information

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

Version 2.2 Revision Date: 11/09/2017