SAFETY DATA SHEET
SUPERIOR NO. 1452-SFM
DATE REVISED: January 1, 2017

Product Name: Superior No. 1452-SFM
Manufacturer: Superior Flux & Mfg. Co. 6615 Parkland Blvd. Cleveland, OH 44139
Emergency Phone Number: 1-800-424-9300 (CHEMTREC)
Other Information Calls: (440) 349-3000

To the Purchaser: This MSDS contains important environmental, health, and toxicology information for your employees who have ordered this product. Please be sure this information is given to them. If you resell this product, a copy of the MSDS should be given to the buyer.

H.M.I.S. INFORMATION: HEALTH = 3  FLAMMABILITY = 0  REACTIVITY = 0

SECTION I - IDENTIFICATION

Common Name: Superior 1452-SFM
Chemical Family: Organic acid non-halide flux
CAS Number: NA
Chemical Name: NA
Formula: See below

SECTION II – HAZARDS IDENTIFICATION

Classification of Substance or Mixture:

Classification (CLP): Corrosive
Label Elements (CLP): Corrosive

Risk Phrases: R36/37/38, R34
Safety Phrases: S-26, S-27, S-36/37/39, S-45, S18, S61, S62, S64
See section XVI for full text description of S and R phrases
Other Hazards: None if used properly

SECTION III- COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>%</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>0-17.5</td>
<td>NA</td>
</tr>
<tr>
<td>Monoethanolamine</td>
<td>141-43-5</td>
<td>2.5-10</td>
<td>3 mg/m³</td>
</tr>
<tr>
<td>Hydroxyacetic Acid</td>
<td>79-14-1</td>
<td>80-90</td>
<td>NA</td>
</tr>
</tbody>
</table>

Unlisted percentages are non-hazardous stabilizers, and water. None of the materials in this product are listed in NTP, IARC, or OSHA as carcinogens.
SECTION IV – FIRST AID MEASURES

**Inhalation:** Remove victim to fresh air
**Ingestion:** If patient is conscious, drink two glasses of water. Do not induce vomiting. Get medical attention immediately.
**Eyes:** Flush with water for 15 minutes. Call a physician.
**Skin:** Wash thoroughly with soap and water

Most Important Symptoms and effects, both acute and delayed

**Primary Routes of Entry into Body:** Fume inhalation, ingestion, skin, and eyes.

**Symptoms of Overexposure:** Salivation, coughing, choking, chills, may cause weight loss, brittle bones, anemia, and stiff joints.

**Medical Conditions Generally Aggravated by Exposure:** Any weakness of the lungs, kidneys or liver will be aggravated.

**Chemical Listed as Carcinogen or Potential Carcinogen:** None

**OSHA Permissible Exposure Limit (PEL):** 3 mg/m³

**ACGIH Threshold Limit Value (TLV):** 3 mg/m³

SECTION V - FIRE AND EXPLOSION HAZARD DATA

**Flash Point:** NA

**Flammable Limits in Air % By Volume:** NA

**Extinguishing Media:** CO₂, Dry Chemical

**Auto Ignition Temperature:** None

**Unusual Fire and Explosion Hazards:** None

**Special Fire Fighting Procedures:** None

SECTION VI - ACCIDENTAL RELEASE MEASURES

**Steps to be Taken in Case Material is Spilled:** Absorb spill with sawdust or wood shavings and remove in accordance with EPA regulations.

SECTION VII - HANDLING AND STORAGE

**Storage Requirements:** Store in plastic containers in cool area, away from heat.

**Handling Precautions:** Safe precautionary practices to avoid spills and exposure to skin and fumes.

**Other Precautions:** NA

SECTION VIII - CONTROL MEASURES

**Respiratory Protection (TYPE):** NIOSH approved respirator.

**Ventilation:** Yes

**Mechanical (General):** Explosion proof

**Local Exhaust:** Yes

**Protective Gloves:** Recommended, NIOSH approved

**Other Protective Clothing or Equipment:** Rubber apron is recommended.

**Eye Protection:** Safety Glasses

**Regulatory Information:** The chemical components are listed on TSCA and DSL inventory. See composition section ii for CAS numbers
SECTION IX - PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point: ~112°C/234°F
Specific Gravity (Water = 1): 1.255
Vapor Pressure (mmHg): Nil
Percent Volatile By Volume: 27%
pH: 2.7
Evaporation Rate (Butyl acetate = 1): NA
Melting Point: ~10°C/50°F
Solubility in Water: Unlimited
Reactivity in Water: None
Appearance and Odor: Amber liquid, slight odor

SECTION X - STABILITY AND REACTIVITY

Stability: Product is stable
Conditions to Avoid: Strong acids, strong oxidizers.
Hazardous Polymerization: None
Conditions to Avoid: Extreme heat
Incompatibility: Oxidizing agents and metals.
Hazardous Decomposition Products: Nitrogen products, CO, CO₂ (above 260°C/500°F)

SECTION XI - TOXICOLOGICAL INFORMATION

Acute Toxicity Data
1) Oral: LD₅₀ (rat): Not available
2) Inhalation: LC₅₀ (rat): Not available
3) Dermal: LD₅₀ (rabbit): Not available
4) Skin Irritation: (rabbit): Not available

Chronic Toxicity Data
1) Repeated Skin Application: (rat): Not available
2) Eye Irritation: (rabbit): Not available

SECTION XII - ECOLOGICAL INFORMATION

This material has not been tested for environmental effects.

SECTION XIII - DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of in accordance with EPA regulations

SECTION XIV - TRANSPORTATION

D.O.T. Proper Shipping Name: Corrosive Liquid, Acidic, Organic, NOS (Contains Hydroxyacetic Acid)
Hazard Class: 8
Identification Number: UN3265
Packing Group: II
Type D.O.T Label Required Information: Corrosive
Waste Disposal Method: Dispose in Accordance with EPA Regulations
SECTION XV - REGULATORY INFORMATION
OSHA Hazardous Chemical According to 29 CFR 1910.1200: NA
Carcinogenicity Classification: (Components Present at 0.1% or More)
International Agency for Research on Cancer (IARC): NA
American Conference of Governmental Industrial Hygienists (ACGIH): NA
Occupational Safety and Health Administration (OSHA): NA
All Components of this Product are Listed on the U.S. Toxic Substances Control Act Inventory or Otherwise Comply with TSCA Pre-manufacture Notification Requirements.
This product is RoHS compliant.

SECTION XVI - OTHER INFORMATION
The labeling of this product is indicated in Section II. The full text of all abbreviations indicated by codes in the MSDS are as follows:

R34 Causes burns
R36 Irritating to eyes
R37 Irritating to respiratory system
R38 Irritating to skin

S-18 Handle and open container with care
S-26 In case of eye contact, rinse thoroughly and get medical attention
S-27 Take off immediately contaminated clothing
S-36/37/39 Wear suitable protective clothing, gloves, and eye/face protection
S-45 In case of accident or if feel unwell call medical advice immediately
S61 Avoid release to the environment. Refer to special instructions/safety data sheet
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label where possible
S64 If swallowed, rinse mouth with water (only if the person is conscious)

P264 Wash … 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/eye protection/face protection
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P309+P311 IF exposed or you feel unwell: Call a POISON CENTER or doctor/physician
Further information:
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