Product Name: Superior No. Superior 5000
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 = 1 FLAMMABILITY = 0 REACTIVITY = 0

SECTION I - IDENTIFICATION

Common Name: Superior 5000-TF
Chemical Family: Tacky flux
CAS Number: NA
Chemical Name: NA
Formula: See below

SECTION II – HAZARDS IDENTIFICATION

Classification of Substance or Mixture:

Classification (CLP): NA
Label Elements (CLP): NA

Warning

Risk Phrases: R36/37/38
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>2-Methyl-2,4-pentanediol</td>
<td>107-41-5</td>
<td>15-30</td>
<td>NA</td>
</tr>
<tr>
<td>Carboxylic Acid</td>
<td>68937-69-9</td>
<td>1-5</td>
<td>NA</td>
</tr>
<tr>
<td>Hydrogenated Rosin</td>
<td>65997-06-0</td>
<td>20-40</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 to fresh air
Skin: Wash thoroughly with water.
Ingestion: If patient is fully conscious, give large amounts of water. Obtain medical attention immediately.

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): NA
ACGIH Threshold Limit Value (TLV): NA

SECTION V - FIRE AND EXPLOSION HAZARD DATA

Flash Point: Core>140°C
Flammable Limits: NA
Extinguishing Media: Not necessary
Auto Ignition Temperature: None
Special Fire Fighting Procedures: Normal cautions when dealing with chemicals.
Unusual Fire and Explosion Hazards: None known

SECTION VI - ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is spilled: Protect skin and eyes by wearing safety glasses and gloves. Ventilate the area. Restrict and collect spilled materials.

SECTION VII - HANDLING AND STORAGE

Storage Requirements: Store in low temperature and low humidity area.
Handling Precautions: Users should wear protective gloves and glasses when handling. Soldering should be conducted in good ventilation environment.
Other Precautions: NA

SECTION VIII - CONTROL MEASURES

Respiratory Protection (TYPE): NIOSH approved
Ventilation: Yes
Mechanical (General): Yes
Local Exhaust: Yes
Eye Protection: Safety glasses
Protective Gloves: Rubber gloves
Other Protective Clothing or Equipment: Laboratory or worker coat
SECTION IX - PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point: NA
Specific Gravity (Water = 1): 1.0-2.0
Vapor Pressure (mm Hg): NA
Percent Volatile by Volume: NA
Vapor Density (Air = 1): NA
Evaporation Rate (Butyl Acetate = 1): NA
Melting Point: 183°C
Solubility in Water: 0%
Appearance and Odor: Pasty and mild solvent odor

SECTION X - STABILITY AND REACTIVITY

Stability: Product is stable
(Conditions to Avoid): Contact with strong acids and alkali
Incompatibility: Strong acids and alkali
Hazardous Decomposition Products: Not determined
Hazardous Polymerization: Not determined
(Conditions to Avoid): NA

SECTION XI - TOXICOLOGICAL INFORMATION

Acute Toxicity Data
1) Oral: LD-50 (rat): Not available
2) Inhalation: LC-50 (rat): Not available
3) Dermal: LD-50 (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: Non-hazardous
Hazard Class: NA
Identification Number: NA
Packing Group: NA
Type D.O.T Label Required Information: NA
Waste Disposal Method: Dispose in accordance with EPA regulations.

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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
National Toxicology Program (NTP): 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:

R36   Irritating to eyes    
R37   Irritating to respiratory system  
R38   Irritating to skin     
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

Further information:
Judgments as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. Reasonable care has been taken in the preparation of this material, but 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.