SAFETY DATA SHEET
SUPERIOR AL26-193-75
DATE REVISED: January 1, 2017

Product Name: Superior AL261-193-75
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 AL261-193-75
Chemical Family: Aluminum Solder Paste
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>Tin</td>
<td>7440-31-5</td>
<td>32</td>
<td>2.0 mg/m³</td>
</tr>
<tr>
<td>Bismuth</td>
<td>7440-69-9</td>
<td>41</td>
<td>0.1 mg/m³</td>
</tr>
<tr>
<td>Polyethylene Glycol</td>
<td>25322-68-3</td>
<td>6-16</td>
<td>NA</td>
</tr>
<tr>
<td>Aminoethylethanolamine</td>
<td>111-41-1</td>
<td>0-4</td>
<td>NA</td>
</tr>
<tr>
<td>Ammonium Fluoborate</td>
<td>13826-83-0</td>
<td>0-3</td>
<td>2.5 mg/m³</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>102-71-6</td>
<td>0-4</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: NA
Flammable Limits: NA
Extinguishing Media: Special Mixtures of Dry Chemicals Suitable for Metal Fires Such as Dry Sand, Dolomite, Graphite, Salt, Soda Ash. Do Not Apply Water to Burning or Melted Metal. Water Can be Used to Cool Containers When No Contact with Metal Will Occur.
Auto Ignition Temperature: NA
Special Fire Fighting Procedures: Avoid Breathing Fumes, Smoke From Fire, And Use Self-Contained Breathing Gear.
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 solderpaste. Soldering should be conducted in good ventilation environment.
Other Precautions: Keep the tin, and copper fume levels below the OSHA permissible exposure limit
SECTION VIII - CONTROL MEASURES
Respiratory Protection (TYPE): NIOSH approved
Ventilation: Yes
Mechanical (General): Yes
Local Exhaust: Yes
Eye Protection: Safety glasses
Protective Gloves: NIOSH approved gloves
Other Protective Clothing or Equipment: Recommend laboratory or work coat

SECTION IX - PHYSICAL AND CHEMICAL CHARACTERISTICS
Boiling Point: NA
Specific Gravity (Water = 1): NA
Vapor Pressure (mm Hg): NA
Percent Volatile by Volume: NA
Vapor Density (Air = 1): NA
Evaporation Rate (Butyl Acetate = 1): NA
Melting Point: 137-139°C
Solubility in Water: Partial
Appearance and Odor: Grey paste, ammonia 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: Will not occur
(Conditions to Avoid): NA

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:  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.

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.