SAFETY DATA SHEET
SUPERIOR CCF-1
DATE REVISED: January 1, 2016

Product Name: Superior CCF-1
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 = 2  FLAMMABILITY = 0  REACTIVITY = 1

SECTION I -- IDENTIFICATION

Common Name: Superior CCF-1
Chemical Family: Centrifugal Casting 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
Signal Word: Danger

Precautionary Phrases: P264, P305+P351+P338, P301+P330+P331
Risk Phrases: R62, R25, R36/37/38, R60/61
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>
<th>H Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Aluminum Fluoride</td>
<td>15096-52-3</td>
<td>65-80</td>
<td>1.5 mg/m³</td>
<td>NA</td>
</tr>
</tbody>
</table>

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 soap and 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): 10 mg/m$^3$
ACGIH Threshold Limit Value (TLV): 10 mg/m$^3$

SECTION V - FIRE AND EXPLOSION HAZARD DATA

Flash Point: NA
Flammable Limits: NA
Extinguishing Media: Dry chemical, CO$_2$ foam
Auto Ignition Temperature: None
Special Fire Fighting Procedures: Normal cautions when dealing with chemicals.
Unusual Fire and Explosion Hazards: Fluorides

SECTION VI - ACCIDENTAL RELEASE MEASURES

Steps to be taken in Case Material is spilled: Clean up powder and flush remaining material with lots of water

SECTION VII - HANDLING AND STORAGE

Storage Requirements: Store in plastic containers in cool area. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.
Handling Precautions: Keep containers away for excessive heat.

SECTION VIII - CONTROL MEASURES

Respiratory Protection (TYPE): NIOSH approved respirator.
Ventilation: Yes
Mechanical (General): Yes
Local Exhaust: Yes
Protective Gloves: Recommended, NIOSH approved
Eye Protection: Safety glasses
Other Protective Clothing or Equipment: Rubber apron
SECTION IX - PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point: NA
Percent Volatile by Volume: 0%
Vapor Pressure (mm Hg): NA
Evaporation Rate (Butyl Acetate = 1): NA
Vapor Density (Air = 1): NA
Solubility in Water: Moderate
Melting Point: NA
Appearance and Odor: Tan odorless powder
Reactivity in Water: None

SECTION X - STABILITY AND REACTIVITY

Stability: Product is stable
(Conditions to Avoid): Excessive heat
Incompatibility: None
Hazardous Decomposition Products: Boric oxide fumes.
Hazardous Polymerization: Will not occur
(Conditions to Avoid): Excessive heat

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
SECTION XV - REGULATORY INFORMATION

OSHA Hazardous Chemical According to 29 CFR 1910.1200: None

Carcinogenicity Classification (Components Present at 0.1% or More): Non-carcinogenic

International Agency for Research on Cancer (IARC): Not listed
American Conference of Governmental Industrial Hygienists (ACGIH): Not listed
National Toxicology Program (NTP): Not listed
Occupational Safety and Health Administration (OSHA): Not listed

None of the components of this product are listed on the U.S. toxic substances control act inventory or otherwise comply with TSCA pre-manufacture notification requirements.

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:

R25 Toxic if swallowed
R36 Irritating to eyes
R37 Irritating to respiratory system
R38 Irritating to skin
R60/61 May cause infertility/May cause harm to unborn child
R62 Possible risk of impaired fertility

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

P264 Wash hands thoroughly after handling
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

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.