SAFETY DATA SHEET
SUPERIOR NO. 11
DATE REVISED: January 1, 2018

Product Name: Superior No. Superior 11
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 SDS 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 SDS should be given to the buyer.

H.M.I.S. INFORMATION: HEALTH = 2  FLAMMABILITY = 1  REACTIVITY = 0

SECTION I - IDENTIFICATION

Common Name: Superior 11
Chemical Family: Cast Iron Welding Powder 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
Signal Word: Danger

Precautionary Phrases: P304, P340, P332+P313, P264, P301+P310, P305+P351+P338
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>
<th>H Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Nitrate</td>
<td>7631-99-4</td>
<td>30-60</td>
<td>2.5 mg/m³</td>
<td>H272, H315, H319, H335, H302</td>
</tr>
<tr>
<td>Sodium Tetraborate</td>
<td>1303-96-4</td>
<td>15-30</td>
<td>2.5 mg/m³</td>
<td>H360, H320</td>
</tr>
<tr>
<td>Sodium Carbonate</td>
<td>497-19-8</td>
<td>15-30</td>
<td>NA</td>
<td>H315, H319</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 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): 1 mg/m³
ACGIH Threshold Limit Value (TLV): 1 mg/m³

SECTION V - FIRE AND EXPLOSION HAZARD DATA

Flash Point: (Method Used): None
Flammable Limits: Lower-NA, Upper-NA
Extinguishing Media: Not needed
Auto Ignition Temperature: None
Special Fire Fighting Procedures: Normal caution when using chemicals.
Unusual Fire and Explosion Hazards: None

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. Do not store in glass or porcelain containers. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.
Handling Precautions: Avoid contact with skin and clothing.
Other Precautions: NA

SECTION VIII - CONTROL MEASURES

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

Boiling Point:  NA
Specific Gravity (Water = 1):  NA
Vapor Pressure (mm Hg):  14
Percent Volatile by Volume:  4.0%
Vapor Density (Air = 1):  NA
Evaporation Rate (Butyl Acetate = 1):  NA
Melting Point:  ~1250°C/2282°F
Solubility in Water:  Sparingly soluble
Reactivity in Water:  None
Appearance and Odor:  White powder

SECTION X - STABILITY AND REACTIVITY

Stability:  Product is stable  (Conditions to Avoid):  Metals
Incompatibility:  Alkaline, strong oxidizing or reducing materials, cyanides or combustible materials.
Hazardous Decomposition Products:  HCl, zinc chloride, zinc oxide, ammonium.
Hazardous Polymerization:  Will not occur  (Conditions to Avoid):  Excessive heat or cold

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: 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 SDS 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)

P304+P340 If inhaled Remove person to fresh air and keep comfortable for breathing
P332+P313 If skin irritation occurs: Get medical advice/attention
P264 Wash … thoroughly after handling
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

H272 May intensify fire; oxidizer
H315 Causes skin irritation
H319 Causes serious eye irritation
H360 May damage fertility or the unborn child
H320 Causes eye irritation
H335 May cause respiratory irritation
H302 Harmful if swallowed

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.