SAFETY DATA SHEET
SUPERIOR NO. 9H
DATE REVISED: April 5, 2018

SECTION 1 -- IDENTIFICATION
Product Name/Part number: Superior No. 9H
Recommended use: Back-up Welding Powder Flux
Manufacturer: Superior Flux & Mfg. Co.
6615 Parkland Blvd
Cleveland OH, 44139
Emergency Contact: CHEMTREC
6615 Parkland Blvd
Emergency Phone: 1-800-424-9300
Cleveland OH, 44139
For other info: (440) 349-3000

SECTION 2 – HAZARD(S) IDENTIFICATION
Classification of the substance or mixture
GHS Classification in accordance with OSHA HCS (29 CFR 1910)
Acute toxicity, Oral (Category 3) H301
Skin irritation (Category 2) H315
Eye irritation (Category 2A) H319
Acute toxicity, Inhalation (Category 4) H332
Specific target organ toxicity – Single exposure, respiratory system (Category 3) H335
Carcinogenicity (Category 1A) H350
Reproductive toxicity (Category 2) H361
Specific target organ toxicity (Category 1) H372
See below for full text of H-Statement
GHS Label Elements, including precautionary statements
Pictogram(s):

Signal Word: Danger

Hazard Statement(s)
H301 Toxic if swallowed
**H315 Causes skin irritation
H319 Causes serious eye irritation
H332 Harmful if inhaled
**H335 May cause respiratory irritation
H350 May cause cancer
H361 Suspected of damaging fertility or the unborn child
H372 Causes damage to lungs through prolonged or repeated exposure if inhaled
**May be omitted from label due to presence of more severe hazard statement(s)

Precautionary statement(s)
P260 Do not breathe dust or fumes
P264 Wash skin and hands thoroughly after handling
P270 Do not eat, drink, or smoke when using this product
P271 Use only outdoors or in a well ventilated area
P280 Wear protective clothing, protective gloves, eye protection, and face protection
P301+P310+P330  IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth.
P302+P352  IF ON SKIN: Wash with plenty of soap and water
P304+P340+P312  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313  If exposed or concerned: Get medical advice
P332+P313  If skin irritation occurs: Get medical advice or attention
P362  Take off contaminated clothing and wash before reuse.
P403+P233  Store in a well-ventilated place. Keep container tightly closed
P405  Store locked up
P501  Dispose of contents or container to an approved waste disposal plant

Hazards not otherwise classified or not covered by GHS: None

SECTION 3 – COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium fluoride</td>
<td>7789-24-4</td>
<td>2-5</td>
</tr>
<tr>
<td>Boric acid</td>
<td>10043-35-3</td>
<td>4-10</td>
</tr>
<tr>
<td>Silica</td>
<td>7631-86-9</td>
<td>10-30</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>1317-80-2</td>
<td>5-20</td>
</tr>
<tr>
<td>Manganese dioxide</td>
<td>1313-13-9</td>
<td>5-10</td>
</tr>
</tbody>
</table>

Unlisted percentages are non-hazardous stabilizers, and/or water.

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If breathed in, move to fresh air. If not breathing, give artificial respiration. Consult a physician.

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin: Wash off with soap and plenty of water. Consult a physician.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most Important Symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in section 2 (labeling)

SECTION 5 – FIREFIGHTING MEASURES

Suitable Extinguishing Media: Water, alcohol-resistant foam, dry chemical or carbon dioxide

Special Hazards: May release small amount of fluorides

Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary

Further information No data available
SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

See section 8 for personal protection.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Mop or sweep up and shovel. Keep in suitable, closed containers for disposal.

For disposal, see section 13.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin, eyes, and clothing. Wash thoroughly after use. Provide appropriate exhaust ventilation.

For precautions, see section 2.

Conditions for safe storage, including any incompatibilities: Keep in plastic containers away from excessive heat.

For full precaution statements see Section 2

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA Permissible Exposure Limit (PEL): 2.5 mg/m³
ACGIH Threshold Limit Value (TLV): 2.5 mg/m³

General Precautions: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

Engineering Controls: Use local exhaust ventilation to maintain air concentrations of dust, vapors and fumes below occupational exposure standards.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).

Protective Gloves: Handle with gloves. (Nitrile Rubber recommended) Gloves must be inspected prior to use. Use proper glove removal techniques (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good lab practices. Wash and dry hands after handling.

Eye Protection: Use appropriately fitting safety goggles with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (USA) or EN 166 (EU)

Body Protection: Impervious clothing – The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation.
of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

SECTION 9 - PHYSICAL AND CHEMICAL CHARACTERISTICS

Appearance: Dark grey powder  
Odor: None  
Odor threshold: Not applicable  
pH: Not applicable  
Melting point/Freezing point: 1250°C / 2282°F (approx.)  
Initial boiling point and boiling range: No data available  
Flash point: Not applicable  
Evaporation rate: Not applicable  
Flammability (Solid, gas): Not applicable  
Upper flammability or explosive limits: Upper explosion limit: Not applicable  
Lower flammability or explosive limits: Lower explosion limit: Not applicable  
Vapor pressure: Not applicable  
Vapor density: Not applicable  
Relative density (Water = 1): No data available  
Solubility(ies): Partially soluble in water  
Partition coefficient: n-octanol/water: No data available  
Auto-ignition temperature: Not applicable  
Decomposition temperature: No data available  
Viscosity: Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available  
Stability: Product is stable under recommended storage conditions  
Possibility of hazardous reactions: No data available  
Conditions to Avoid: Excessive heat, exposure to moisture  
Incompatible Material: Potassium, acid anhydrides, strong oxidizers  
Hazardous Decomposition Products: No data available  
In the event of fire: See Section 5
SECTION 11 - TOXICOLOGICAL INFORMATION

Likely Route(s) of Exposure: Inhalation, ingestion, skin and eye contact

Symptoms (Immediate and Chronic) from

<table>
<thead>
<tr>
<th>Measure(s) of toxicity</th>
<th>Acute Exposure</th>
<th>Prolonged or Repeated Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

IARC: No component of this product is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product is present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

SECTION 12 - ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>No data available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>No data available</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>No data available</td>
</tr>
<tr>
<td>Mobility in soil</td>
<td>No data available</td>
</tr>
<tr>
<td>Other adverse effects</td>
<td>An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.</td>
</tr>
</tbody>
</table>

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods

Product Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging Dispose of as unused product.

SECTION 14- TRANSPORTATION

D.O.T. (USA) Non-hazardous
SECTION 15 - REGULATORY INFORMATION

SARA 302 Components  No Chemicals in this material are subject to the reporting requirement of SARA Title III, Section 302.

SARA 313 Components  No chemicals in this material are subject to the reporting requirement of SARA Title III, Section 313.

SARA 311/312 Hazards  Acute Health Hazard

California Prop. 65 Components

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<td>Silica</td>
<td>7631-86-9</td>
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<td>1317-80-2</td>
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</table>

THIS PRODUCT IS RoHS 2 COMPLIANT

SECTION 16 - OTHER INFORMATION

Further information:
Judgments as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. The above information does not represent any guarantee of the properties of the product. It is believed to be correct, but does not purport to be all inclusive and should be used only as a guide. Reasonable care has been taken in the preparation of this material, and is based on the present state of our knowledge.

Superior Flux & Mfg. Co. shall not be held liable for any damage resulting from handling or from contact with the above product. 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.

Preparation information
Superior Flux & Mfg. Co.
440-349-3000