SAFETY DATA SHEET
ANTI-BORAX CRESCENT FORGE
DATE REVISED: April 22, 2020

SECTION 1 -- IDENTIFICATION
Product Name/Part number: Anti- Borax Crescent Forge
Recommended use: Forge welding flux
Manufacturer: Superior Flux & Mfg. Co. 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)
Carcinogenicity (Category 1A) H350
Reproductive toxicity (Category 2) H361
Specific target organ toxicity – Repeated exposure, lungs (Category 1) H372
See below for full text of H-Statement(s)

GHS Label Elements, including precautionary statements
Pictogram(s):

Signal Word: Danger
Hazard Statement(s)
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

Precautionary statement(s)
P202 Do not handle until all safety precautions have been read and understood
P260 Do not breathe dust, fumes, or gas.
P264 Wash skin thoroughly after handling
P270 Do not eat, drink, or smoke when using this product
P280 Wear protective gloves or protective clothing and eye protection
P308+P313 If exposed or concerned: Get medical advice or attention
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:
Boric acid Included in the Candidate List of Substances of Very High Concern (SVHC)
according to Regulation (EC) No. 1907/2006 (REACH)
SECTION 3 – COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slag</td>
<td>FEO-FE203-FE304</td>
<td>50 – 80</td>
</tr>
<tr>
<td>Silicon dioxide</td>
<td>14808-60-7</td>
<td>15 – 40</td>
</tr>
<tr>
<td>Boric acid</td>
<td>10043-35-3</td>
<td>5 – 25</td>
</tr>
</tbody>
</table>

Unlisted percentages are non-hazardous stabilizers, and 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)

**Indication of any immediate medical attention and special treatment needed**

No data available

SECTION 5 – FIREFIGHTING MEASURES

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

**Special Hazards:** Will release small amounts of borane/boron oxides

**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. Ensure adequate ventilation. Evacuate personnel to safe areas

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** 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 formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

For precautions, see section 2.

Conditions for safe storage, including any incompatibilities Keep in plastic containers tightly closed in a dry and well-ventilated place away from excessive heat. Moisture sensitive.

For full precaution statements see Section 2

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA Permissible Exposure Limit (PEL): 10 mg/m³
ACGIH Threshold Limit Value (TLV): 10 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 particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges 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 an 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.

Control of environmental exposure: Prevent further leakage or spillage if safe to do so.

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Tan with grey chips</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point/Freezing point</td>
<td>982-1400°C / 1800-2552°F</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (Solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>Upper explosion limit: Not applicable</td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>Lower explosion limit: Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density (Water = 1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Mostly insoluble in water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

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

**Incompatible Material:** No data available

**Hazardous Decomposition Products** Boric oxide fumes

*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

- **Acute Exposure**: No data available
- **Prolonged or Repeated Exposure**: No data available

Measure(s) of toxicity

- No data available

**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

Additional Information

**Boric acid**: Toxicity reported for borates in humans: ingestion or absorption may cause nausea, vomiting, diarrhea, abdominal cramps, and erythematosus lesions on the skin and mucous membranes. Other symptoms include: circulatory collapse, tachycardia, cyanosis, delirium, convulsions, and coma. Death has been reported to occur in infants from less than 5 grams and in adults from 5 to 20 grams.

Liver - Irregularities - Based on Human Evidence
Liver - Irregularities - Based on Human Evidence

SECTION 12 - ECOLOGICAL INFORMATION

**Toxicity**

- No data available

**Persistence and degradability**

- No data available

**Bioaccumulative potential**

- No data available

**Mobility in soil**

- No data available

**Results of PBT and vPvB assessment**

- PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects**

- No data available

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

- Dispose of as unused product.
SECTION 14 - TRANSPORTATION

D.O.T. (USA) Not dangerous goods
IMDG Not dangerous goods
IATA Not dangerous goods

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 This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313
SARA 311/312 Hazards Chronic Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Revision Date</th>
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<tbody>
<tr>
<td>Boric acid</td>
<td>07/17/09</td>
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<tr>
<td>Silicon dioxide</td>
<td>07/17/09</td>
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New Jersey Right To Know Components

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California Prop. 65 Components

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<td>Silicon dioxide</td>
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**THIS PRODUCT IS ROHS 3 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