

# SAFETY DATA SHEET

## SUPERIOR NO. 5

DATE REVISED: January 2, 2019

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### SECTION 1 -- IDENTIFICATION

**Product Name/Part number:** Superior No. 5

**Recommended use:** Powder flux

**Manufacturer:** Superior Flux & Mfg. Co.  
6615 Parkland Blvd  
Cleveland OH, 44139

**Emergency Contact:** CHEMTREC  
**Emergency Phone: 1-800-424-9300**  
**For other info:** (440) 349-3000

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### SECTION 2 – HAZARD(S) IDENTIFICATION

**Classification of the substance or mixture**

**GHS Classification in accordance with OSHA HCS (29 CFR 1910)**

Eye irritant (Category 2) H319

Acute oral toxicity (Category 3) H335

Reproductive toxicity (Category 2) H361

*See below for full text of H-Statement*

**GHS Label Elements, including precautionary statements**

**Pictogram(s):**



**Signal Word:** Warning

**Hazard Statement(s)**

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H361 Suspected of damaging fertility or the unborn child

\*\*May be omitted from label due to presence of stricter statement.

**Precautionary statement(s)**

P202 Do not handle until all safety precautions have been read and understood

P264 Wash skin thoroughly after handling

P280 Wear protective gloves or protective clothing and eye protection

P281 Use personal protective equipment as required

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 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)

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## SECTION 3 – COMPOSITION INFORMATION

Components	CAS Number	%
Boric Acid	10043-35-3	80 – 100
Borax	1303-96-4	0 – 20

Unlisted percentages are non-hazardous stabilizers, and water.

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## 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

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## 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

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## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Personal Precautions and Equipment and emergency procedures:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, 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. Sweep up and shovel. Keep in suitable, closed containers for disposal.

*For disposal, see section 13.*

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## 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.

Provide appropriate exhaust ventilation at places where dust is formed.

*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*

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## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

**OSHA Permissible Exposure Limit (PEL):** 2 mg/m<sup>3</sup>

**ACGIH Threshold Limit Value (TLV):** 2 mg/m<sup>3</sup>

**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 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.

**Control of environmental exposure:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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.

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## SECTION 9 - PHYSICAL AND CHEMICAL CHARACTERISTICS

<b>Appearance</b>	White powder
<b>Odor</b>	No data available
<b>Odor threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting point/Freezing point</b>	No data available
<b>Initial boiling point and boiling range</b>	No data available
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	No data available
<b>Flammability (Solid, gas)</b>	No data available
<b>Upper flammability or explosive limits</b>	Upper explosion limit: Not applicable
<b>Lower flammability or explosive limits</b>	Lower explosion limit: Not applicable
<b>Vapor pressure</b>	No data available
<b>Vapor density</b>	No data available
<b>Relative density (Water = 1)</b>	No data available
<b>Solubility(ies)</b>	Soluble in water
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	Not applicable

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## 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*

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## 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 erythematous 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

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## 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.*

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## 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.

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## SECTION 14- TRANSPORTATION

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

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## SECTION 15 - REGULATORY INFORMATION

<b>SARA 302 Components</b>	No Chemicals in this material are subject to the reporting requirement of SARA Title III, Section 302.
<b>SARA 313 Components</b>	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
<b>SARA 311/312 Hazards</b>	Chronic Health Hazard

### Massachusetts Right To Know Components

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

### Pennsylvania Right To Know Components

	CAS No.	Revision Date
Boric acid	10043-35-3	07/17/09

### New Jersey Right To Know Components

	CAS No.	Revision Date
Boric acid	10043-35-3	07/17/09

### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**THIS PRODUCT IS ROHS 2 COMPLIANT**

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## 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.*

**References used:** Sigma Aldrich (Boric acid SDS - 185094)

### Preparation information

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

Version 1.0

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