

SAFETY DATA SHEET

SUPERIOR NO. 604B/3411

DATE REVISED: January 1, 2016

Product Name: Superior No. 604B/3411

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 = 0

SECTION I -- IDENTIFICATION

Common Name: Superior No. 604B/3411

Chemical Family: Boron-modified silver brazing paste 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



Irritant

Health hazard

Precautionary Phrases: P264, P305+P351+P338, P301+P330+P331

Risk Phrases: R62, R25, R36/37/38, R60/61

Safety Phrases: S-26, S-27, S-36/37/39, S-45

See section XVI for full text description of S and R phrases

Other Hazards: None if used properly

SECTION III- COMPOSITION INFORMATION

Components	CAS Number	%	OSHA PEL	H Statements
Potassium Fluoroborohydroborate	12228-71-6	30-45	2.5 mg/m ³	H319, H360
Potassium Tetraborate	1332-77-0	10-20	5.0 mg/m ³	H360
Boric Acid	10043-35-3	15-30	10 mg/m ³	H303, H360

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
Eyes: Flush with water for fifteen (15) Minutes. Call physician.
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): 2.5 mg/m³

ACGIH Threshold Limit Value (TLV): 2.5 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: Fluorides

SECTION VI - ACCIDENTAL RELEASE MEASURES

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

SECTION VII - HANDLING AND STORAGE

Precautions to be Taken in Handling and Storage: Store in plastic containers in cool area. Do not store in glass or porcelain container. Wash thoroughly after use.

Work/Hygienic Practices: Avoid contact with skin, eyes and clothing.

Other Precautions: Keep container away from excessive heat.

SECTION VIII - CONTROL MEASURES

Ventilation: Yes

Local Exhaust: Yes

Eye Protection: Safety Goggles

Protective Gloves: Recommend, NIOSH approved

Mechanical (General): Yes

Respiratory Protection (Type): NIOSH approved respirator.

Other Protective Clothing or Equipment: Rubber apron

SECTION IX - PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point: NA
Specific Gravity (Water = 1): 1.6
Vapor Pressure (mm Hg): NA
Percent Volatile by Volume: 30%
Vapor Density (Air = 1): NA
Evaporation Rate (Butyl Acetate = 1): 0.3
Melting Point: 500°C
Solubility in Water: Moderate
Reactivity in Water: None
Appearance and Odor: Black odorless paste

SECTION X - STABILITY AND REACTIVITY

Stability: Product is stable **(Conditions to Avoid):** Excess heat
Incompatibility: Glass or porcelain
Hazardous Decomposition Products: Fluorides with high heat.
Hazardous Polymerization: Will not occur **(Conditions to Avoid):** NA

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
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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
H303	May be harmful if swallowed
H319	Causes serious eye irritation
H360	May damage fertility or the unborn child
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.