

SAFETY DATA SHEET

SUPERIOR NO. 612

DATE REVISED: January 1, 2016

Product Name: Superior No. Superior 612

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. 612

Chemical Family: High temperature 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

Risk Phrases: R36/37/38, R60/61, R48/20

Safety Phrases: S-22, S-38, 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
Potassium Fluoroborate	12228-71-6	30-45	2.5 mg/m ³
Sodium Tetraborate Decahydrate	1303-96-4	22-48	5.0 mg/m ³
Boric Acid	10043-35-3	10-22	10 mg/m ³
Aluminum Oxide	1344-28-1	2-11	15 mg/m ³
Silicon Dioxide	14808-60-7	6-18	10 mg/m ³

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
Eyes: Flush with water for fifteen (15) Minutes. Call physician.
Skin: Wash thoroughly with 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): NA

ACGIH Threshold Limit Value (TLV): NA

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 with high heat.

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

Protective Gloves: Recommend, NIOSH approved

Eye Protection: Safety goggles

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: 20%
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: Off-white, 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

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
Waste Disposal Method: Dispose in accordance with EPA regulations.

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

National Toxicology Program (NTP): 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 MSDS are as follows:

R36	Irritating to eyes
R37	Irritating to respiratory system
R38	Irritating to skin
R60/61	May cause infertility/May cause harm to unborn child
R48/20	Danger of serious damage to health by prolonged exposure through inhalation
S-22	Do not breathe dust
S-38	In case of insufficient ventilation wear suitable respiratory equipment
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

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.**
