



MATERIAL SAFETY DATA SHEET SUPERIOR NO. 9

DATE REVISED: February 9, 2004



Product Name: Superior No. 9

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. 9

Chemical Family: Back-Up Welding Powder Flux

CAS Number: NA

Chemical Name: NA

Formula: See Below

SECTION II - COMPOSITION INFORMATION

<u>Components</u>	<u>CAS Number</u>	<u>%</u>	<u>OSHA PEL</u>
Calcium Fluoride	7789-75-5	50-70	2.5 PPM
Sodium Fluoride	7681-49-4	15-30	2.5 PPM
Boric Acid	10043-35-3	5-10	10 PPM
Silicon Dioxide	7631-86-9	5-10	10 PPM
Titanium Dioxide	1317-80-2	5-10	10 PPM
Manganese Dioxide	1313-13-9	1-4	5 PPM
Wollastonite	10101-39-0	4-6	10 PPM

Unlisted percentages are non-hazardous stabilizers, activators, and water. None of the materials in this product are listed in NTP, IARC, or OSHA as carcinogens.

SECTION III - HEALTH HAZARDS

EMERGENCY AND FIRST AID PROCEDURES

Eyes: Flush with Water for 10 Minutes. Call a Physician.

Skin: Wash Thoroughly with Water.

Inhalation: Remove to Fresh Air.

Ingestion: If Patient is Fully Conscious, Give Large Amounts of Water. Obtain Medical Attention Immediately.

Primary Routes of Entry: Fume Inhalation, Ingestion, Skin, and Eyes.

Signs and Symptoms of Exposure:

1) **Acute Effects:** Salivation, Coughing, Choking, and Chills.

2) **Chronic Effects:** May Cause Weight Loss, Brittle Bones, Anemia, Weakness and Stiff Joints.

Medical Conditions Generally Aggravated by Overexposure: Any Weakness of the Lungs, Kidneys or Liver will be Aggravated.

Chemical Listed as a Carcinogen or Potential Carcinogen: None

OSHA Permissible Exposure Limit (PEL): 2.5 PPM

ACGIH Threshold Limit Value (TLV): 2.5 PPM

Superior manufactures quality fluxes. Our business is solving problems.



SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: NA

Flammable Limits: NA

Extinguishing Media: Not Necessary

Auto Ignition Temperature: None

Special Fire Fighting Procedures: Normal Cautions when Dealing with Chemicals

Unusual Fire and Explosion Hazards: None

SECTION V - ACCIDENTAL RELEASE MEASURES

Steps to be Taken in Case Material is Spilled: Clean up Powder and Flush Remaining Material with lots of Water.

SECTION VI - HANDLING AND STORAGE

Storage Requirements: Store in Plastic Containers in Cool Area. Do Not Store in Glass or Porcelain Containers.

Handling Precautions: Safe, Precautionary Practices to Avoid Spills and Exposure to Skin or Fumes.

SECTION VII - CONTROL MEASURES

Respiratory Protection (TYPE): NIOSH Approved Respirator.

Ventilation: Yes

Mechanical (General): Yes

Local Exhaust: Yes

Eye Protection: Safety Goggles

Protective Gloves: Recommended, NIOSH Approved

Other Protective Clothing or Equipment: Rubber Apron.

SECTION VIII - PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point: NA

Specific Gravity (Water = 1): NA

Vapor Pressure (mm Hg): 14

Percent Volatile by Volume: 0.5%

Vapor Density (Air = 1): NA

Evaporation Rate (Butyl Acetate = 1): NA

Melting Point: ~1250°C/2282°F

Solubility in Water: Sparingly Soluble

Reactivity in Water: None

Appearance and Odor: Dark Gray Odorless Powder

SECTION IX - STABILITY AND REACTIVITY

Stability: Product is Stable

(Conditions to Avoid): NA

Incompatibility: Glass or Porcelain

Hazardous Decomposition Products: Fluorides with High Heat.

Hazardous Polymerization: Will not Occur

(Conditions to Avoid): NA

SECTION X - TRANSPORTATION AND DISPOSAL CONSIDERATIONS

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 of in Accordance with EPA Regulations

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Superior manufactures quality fluxes. Our business is solving problems.



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