SAFETY DATA SHEET SUPERIOR NO. 9H

DATE REVISED: January 1, 2016

Product Name: Superior No. 9H

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 = 1

SECTION I - IDENTIFICATION

Common Name: Superior No. 9H

Chemical Family: Back-Up Welding Powder 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



Risk Phrases: R36/37/38

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
Calcium Fluoride	7789-75-5	15-30	2.5 mg/m^3
Lithium Fluoride	7789-24-4	2-5	2.5 mg/m^3
Boric Acid	10043-35-3	4-10	10 mg/m^3
Silicon Dioxide	7631-86-9	10-30	10 mg/m^3
Titanium Dioxide	1317-80-2	5-20	10 mg/m^3
Manganese Dioxide	1313-13-9	5-10	5 mg/m^3
Wollastonite	10101-39-0	30-50	10 mg/m^3
Black Iron Oxide	12227-89-3	2-4	5 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 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): 1 mg/m³ **ACGIH Threshold Limit Value (TLV):** 1 mg/m³

SECTION V - 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: Fluorides

SECTION VI - ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is spilled: Clean up powder and flush remaining material with lots of water.

SECTION VII - HANDLING AND STORAGE

Storage Requirements: Store in plastic containers in cool area, away from heat.

Handling Precautions: Safe precautionary practices to avoid spills and exposure to skin and fumes.

Other Precautions: NA

SECTION VIII - CONTROL MEASURES

Respiratory Protection (TYPE): NIOSH approved respirator.

Ventilation: Yes

Mechanical (General): Yes

Local Exhaust: Yes

Protective Gloves: Recommended, NIOSH approved

Other Protective Clothing or Equipment: Rubber apron is recommended

Eye Protection: Safety Glasses

SECTION IX - PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point: NA

Percent Volatile by Volume: 0.5% Vapor Pressure (mm Hg): NA

Evaporation Rate (Butyl Acetate = 1): NA

Vapor Density (Air = 1): NA

Solubility in Water: Sparingly Soluble

Melting Point: ~1250°C/2282°F

Appearance and Odor: Dark gray odorless powder

Reactivity in Water: None

SECTION X - STABILITY AND REACTIVITY

Stability: Product is stable (Conditions to Avoid): Metals

Incompatibility: Alkaline, strong oxidizing or reducing materials, cyanides or combustible materials.

Hazardous Decomposition Products: HCl, zinc chloride, zinc oxide, ammonium.

Hazardous Polymerization: Will not occur (Conditions to Avoid): Excessive heat or cold

SECTION XI - TOXICOLOGICAL INFORMATION

Acute Toxicity Data

1) Oral: LD-50 (rat): Not available

2) Inhalation: LC-50 (rat): Not available3) 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 of 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 R37 R38	Irritating to eyes Irritating to respiratory system Irritating to skin
S-26 S-27 S-36/37/39 S-45	In case of eye contact, rinse thoroughly and get medical attention Take off immediately contaminated clothing Wear suitable protective clothing, gloves, and eye/face protection 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 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.