



## MATERIAL SAFETY DATA SHEET SUPERIOR PRE-FLUX NICKEL CLEANER

DATE REVISED: February 25, 2004



**Product Name:** Superior Pre-Flux Nickel Cleaner  
**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 = 3      FLAMMABILITY = 1      REACTIVITY = 1**

### SECTION I - IDENTIFICATION

**Common Name:** Superior Pre-Flux Nickel Cleaner      **Chemical Family:** Nickel Precleaner  
**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>	<u>ACGIH TLV</u>
Hydrochloric Acid	7647-01-0	30-40	5	5
Cupric Chloride	7447-39-4	1-3	5mg/m <sup>3</sup>	5mg/m <sup>3</sup>
Nitric Acid	7697-37-2	0.1 – 5%	5mg/m <sup>3</sup>	5mg/m <sup>3</sup>

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

#### HEALTH HAZARD DATA

**Eyes:** May Cause Severe Acid Burns.  
**Skin Contact:** Brief Contact May Cause Severe Irritation and Acid Burns.  
**Skin Absorption:** Same as Skin Contact.  
**Ingestion:** Moderately Toxic. May Cause Nausea, Vomiting, and Abdominal Pain.  
**Inhalation:** Vapors are Irritating and May Cause Coughing and Irritation of the Nose, Throat, and Respiratory Tract.  
**Systematic and Other Effects:** No Information is Available on the Effects of Repeated and Long Term Overexposure.

#### EMERGENCY AND FIRST AID PROCEDURES

**Eyes:** Immediately Flush Eyes with Plenty of Water for at Least 15 Minutes. Get Medical attention Without Delay, Preferably an Ophthalmologist.  
**Skin:** Remove Contaminated Clothing and Flush Skin with Plenty of Water.  
**Inhalation:** Remove to Fresh Air. Call Physician if Symptoms Persist.  
**Ingestion:** Give Two Glasses Water or Milk. Do Not Induce Vomiting. Get Medical Attention.

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### EMERGENCY AND FIRST AID PROCEDURES (Continued)

**Primary Routes of Entry:** Fume Inhalation, Ingestion, Skin, and Eyes.  
**Symptoms of Overexposure:** Eye and Skin Burns, Damage to Digestive and Respiratory System, Abdominal Pain, Vomiting and Effects Central Nervous System.  
**Medical Conditions Generally Aggravated by Overexposure:** Lung and Skin Disorders.  
**Chemical Listed as a Carcinogen or Potential Carcinogen:** None  
**OSHA Permissible Exposure Limit (PEL):** 15 PPM  
**ACGIH Threshold Limit Value (TLV):** 7 PPM

### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

**Flash Point:** None  
**Extinguishing Media:** N/A  
**Special Fire Fighting Procedures:** N/A  
**Unusual Fire and Explosion Hazards:** Hydrogen Chloride Vapors.  
**Flammable Limits:** N/A  
**Auto Ignition Temperature:** N/A

### SECTION V - ACCIDENTAL RELEASE MEASURES

**Steps to be Taken in Case Material is Spilled:** Personnel Involved in Clean Up Require Protection for Inhalation of Vapors and Contact with Liquid. Neutralize Spill with Soda Ash or Baking Soda.

### SECTION VI - HANDLING AND STORAGE

**Storage Requirements:** Store in Closed Containers in Well Ventilated Area, Away From Alkalies, and Heat Source.  
**Handling Precautions:** Avoid Excessive Inhalation of Vapors. Wash Thoroughly After Handling.

### SECTION VII - CONTROL MEASURES

**Respiratory Protection (Type):** NIOSH/MSHA Approved Acid Vapor Cartridge for Excessive Exposure Limits.  
**Ventilation:** Use of Local or General Dilution Ventilation to Maintain Exposure Limits(PEL).  
**Mechanical (General):** N/A  
**Local Exhaust:** N/A  
**Eye Protection:** Chemical Mono-goggles and/or Full Face Shield in all Possible Splash Situations.  
**Skin Protection:** Chemical Impervious Rubber Apron Where Potential Splash Exist.  
**Other Protective Clothing or Equipment:** Avoid unprotected Skin and Eye Contact and Exposures. Use Only with Good Ventilation.

### SECTION VIII - PHYSICAL AND CHEMICAL CHARACTERISTICS

**Boiling Point:** 100°C/212°F  
**Vapor Pressure (mm Hg):** as Water~17  
**Vapor Density (Air = 1):** >2  
**Melting Point:** N/A  
**Reactivity in Water:** NA  
**Specific Gravity:** 1.16  
**Percent Volatiles:** 100  
**Evaporation Rate (Butyl Acetate = 1):** 1  
**Solubility in Water:** Complete  
**Appearance and Odor:** Clear Green Liquid, Acidic

MSDS: Superior Pre-Flux Nickel Cleaner P. 2/3

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## SECTION IX - STABILITY AND REACTIVITY

**Stability:** Stable Under Normal Use Conditions.

**(Conditions to Avoid):** Contact with Eyes and Skin

**Incompatibility:** Strong Alkaline Materials.

**Hazardous Decomposition Products:** Hydrogen Chloride Vapors.

**Hazardous Polymerization:** Will Not Occur (Conditions to Avoid): N/A

## SECTION X - TRANSPORTATION AND DISPOSAL CONSIDERATIONS

**D.O.T. Proper Shipping Name:** Hydrochloric Acid Solution

**Identification Number:** UN1789

**Hazard Class:** 8

**Packing Group:** II

**Type D.O.T Label Required Information:** Corrosive

**Waste Disposal Method:** Dispose of in Accordance with EPA Regulations

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MSDS: Superior Pre-Flux Nickel Cleaner P. 3/3

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