SAFETY DATA SHEET
SUPERIOR PREFLUX NICKEL CLEANER
DATE REVISED: September 1, 2019

SECTION 1 -- IDENTIFICATION
Product Name/Part number: Superior Preflux Nickel Cleaner
Recommended use: Nickel Cleaner
6615 Parkland Blvd
Cleveland OH, 44139
Emergency Phone No.: 1-800-424-9300 (CHEMTREC)

SECTION 2 – HAZARD(S) IDENTIFICATION
Classification of the substance or mixture
GHS Classification in accordance with OSHA HCS (29 CFR 1910)
Corrosive to metals (Category 1) H290
Acute toxicity, Oral (Category 4) H302
Skin corrosion (Category 1B) H314
Serious eye damage (Category 1B) H318
Acute toxicity, Inhalation (Category 3) H331
Specific target organ toxicity – Single exposure, Respiratory system (Category 3) H335
Acute aquatic toxicity (Category 1) H400
Chronic aquatic toxicity (Category 1) H410

See below for full text of H-Statement

GHS Label Elements, including precautionary statements
Pictogram(s):

Signal Word: Danger

Hazard Statement(s)
H290 May be corrosive to metals
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
**H318 Causes serious eye damage
H331 Toxic if inhaled
H335 May cause respiratory irritation
**H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects
**May be omitted from label due to presence of stronger statement.

Precautionary statement(s)
P234 Keep only in original container
P260 Do not breathe mist, fumes, or vapors
P264 Wash skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P271 Use only outdoors or in a well-ventilated area
P273 Avoid release to the environment
P280 Wear protective gloves/protective clothing/eye protection/face protection
P301+P312+P330+P331  IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting
P303+P361+P353  IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340+P310  IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor
P305+P351+P338+P310  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call POISON CENTER/doctor
P332+P313  If skin irritation occurs: Get medical advice or attention
P362  Take off and wash contaminated clothing before reuse.
P390  Absorb spillage to prevent material damage
P403+P233  Store in a well-ventilated place. Keep container tightly closed
P405  Store locked up
P406  Store in corrosive resistant container with a resistant inner liner.
P501  Dispose of contents and/or container to an approved waste disposal plant

Hazards not otherwise classified or not covered by GHS: None

SECTION 3 – COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>50 – 90</td>
</tr>
<tr>
<td>Hydrochloric Acid</td>
<td>7647-01-0</td>
<td>10 – 40</td>
</tr>
<tr>
<td>Cupric chloride</td>
<td>10125-13-0</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>Nitric acid</td>
<td>7697-37-2</td>
<td>&lt; 5</td>
</tr>
</tbody>
</table>

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If breathed in, move to fresh air. If not breathing, give artificial respiration. Consult a physician.
Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.
Skin: Wash off with soap and plenty of water. Consult a physician.
Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most Important Symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in section 2 (labeling)

SECTION 5 – FIREFIGHTING MEASURES

Flash Point: Not applicable
Flammable Limits: Not applicable
Extinguishing Media: Not applicable
Auto Ignition Temperature: None
Special Fire Fighting Procedures: Normal cautions when dealing with chemicals.
Unusual Fire and Explosion Hazards: Will release small amounts of HCl upon decomposition
SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment and emergency procedures: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. See section 8 for personal protection.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

In Case Material is spilled: First neutralize with soda ash or sodium bicarbonate, dilute with water and dispose of in accordance with EPA regulations.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with skin and eyes. For full precaution statements see Section 2

Storage Requirements: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS

OSHA Permissible Exposure Limit (PEL): 5 mg/m³
ACGIH Threshold Limit Value (TLV): 5 mg/m³

Engineering Controls: Use local exhaust ventilation to maintain air concentrations of vapors and fumes below occupational exposure standards.

Special Engineering Control Needs: NA

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (USA) or ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested an approved under appropriate government standards such as NIOSH (USA) or CEN (EU).

Protective Gloves: Handle with gloves. (Nitrile Rubber recommended) Gloves must be inspected prior to use. Use proper glove removal techniques (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good lab practices. Wash and dry hands after handling.

Eye Protection: Use tightly fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (USA) or EN 166 (EU)

Body Protection: Complete suit protecting against chemical, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.
### SECTION 9 - PHYSICAL AND CHEMICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear, green liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Acidic</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/Freezing point</td>
<td>0°C / 32°F</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>104°C / 220°F</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate (Butyl Acetate = 1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (Solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.125 (Water = 1)</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Miscible in water</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### SECTION 10 - STABILITY AND REACTIVITY

**Reactivity:** No data available  
**Stability:** Product is stable under recommended storage conditions  
**Possibility of hazardous reactions:** No data available  
**Conditions to Avoid:** Metals  
**Incompatibility:** Strong alkaline materials  
**Hazardous Decomposition Products** Hydrogen chloride vapors  
In the event of fire: See Section 5

### SECTION 11 - TOXICOLOGICAL INFORMATION

**Likely Route(s) of Exposure:** Inhalation, ingestion, skin and eye contact  
**Symptoms (Immediate and Chronic) from**  
- Acute Exposure: No data available  
- Prolonged or Repeated Exposure: No data available  
**Measure(s) of toxicity:** No data available  
**Is this chemical listed in the National Toxicology Program (NTP) Report on Carcinogens?** No data available  
**Is this chemical found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs or by the Occupational Safety and Health Administration (OSHA)?** No data available
SECTION 12 - ECOLOGICAL INFORMATION
Toxicity
No data available
Persistence and degradability
No data available
Bioaccumulative potential
No data available
Mobility in soil
No data available
Other adverse effects
Hazard to ozone layer: No data available

SECTION 13 - DISPOSAL CONSIDERATIONS
Waste treatment methods
Product
Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging
Dispose of as unused product.

SECTION 14- TRANSPORTATION
D.O.T.
Proper Shipping Name: Hydrochloric acid solution
Identification Number: UN1789  Hazard Class(es): 8
Packing Group: II  D.O.T. Label Required Information: Corrosive

SECTION 15 - REGULATORY INFORMATION
SARA 302 Components
No Chemicals in this material are subject to the reporting requirement of SARA Title III, Section 302.
SARA 313 Components
The following chemical components exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Added</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cupric chloride dihydrate</td>
<td>10125-13-0</td>
<td>04/24/1993</td>
</tr>
</tbody>
</table>

SARA 302 Components
Acute Health Hazard

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**THIS PRODUCT IS ROHS 3 COMPLIANT**
SECTION 16 - OTHER INFORMATION

Further information:
Judgments as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. The above information does not represent any guarantee of the properties of the product. It is believed to be correct, but does not purport to be all inclusive and should be used only as a guide. Reasonable care has been taken in the preparation of this material, and is based on the present state of our knowledge.

Superior Flux & Mfg. Co. shall not be held liable for any damage resulting from handling or from contact with the above product.

Preparation information
Superior Flux & Mfg. Co.
440-349-3000