MATERIAL SAFETY DATA SHEET
(For Printing Ink and Related Materials)

Date: April 18, 2009

SECTION I

MANUFACTURED BY: Graphic Chemical & Ink Company
P.O. Box 7027
728 North Yale
Villa Park, IL  60181

EMERGENCY PHONE: 800-535-5053

PRODUCT CLASS: Ferric Chloride
TRADE NAME: Copper Etching Solution
C.A.S.  7705-08-0

SECTION II - HAZARDOUS INGREDIENTS

37-45% Ferric Chloride
<0.9% Hydrochloric Acid
<0.5% Ferrous Chloride

SECTION III - PHYSICAL DATA

Boiling Range: 230 Degrees F
Vapor Density: Negligible
Acetate
Liquid Density: Percent Volatile Wt:
Appearance: Reddish Brown Liquid

SECTION IV - FIRE & EXPLOSION DATA

Flash Point Category: Not flammable
Lowest Flash Point: N/A
LEL: N/A

Extinguishing Media: CO2, Dry Chemical, sand, water

Special Fire Fighting Procedure: Wear self-contained breathing apparatus and full protective clothing as appropriate for surrounding fire. Cool exterior of storage tanks.

Unusual Fire & Explosion Hazards: None

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MANUFACTURERS CODE: 13660,13662,13664
SECTION V - HEALTH HAZARD DATA

Threshold Limit Value: 900 mg/kg

Effects of Overexposure: Contact with liquid, mist or vapor can cause immediate irritation or corrosive burns to all human tissue. Severity of the burn is generally determined by the concentration of the solution and duration of exposure. Contact with eyes may cause irritation and tearing and eye tissue discoloration and may result in permanent visual loss unless removed quickly by thorough irrigation with water. Inhalation of concentrated vapor or mist may cause irritation of respiratory tract. Ingestion may cause liver and kidney damage and may be fatal.

Emergency First Aid:
Flush eyes or skin immediately with water for at least 15 minutes. Wash clothing before reuse. If ingested, drink copious amounts of water and do not induce vomiting. If inhaled, remove to fresh air. Always seek medical attention.

SECTION VI - REACTIVITY DATA

Product Stability: Stable

Conditions to Avoid: Material is stable when properly handled. Material is acidic and corrodes most metals. Avoid contact with strong alkalis and oxidizers.

SECTION VII - SPILL OR LEAK PROCEDURES

Procedure when material is spilled or released:
Utilize full protective clothing including boots. Contain spill to prevent contamination of water way; neutralize with line or soda ash. Flush with water in accordance with applicable regulations to waste treatment system.
Waste disposal method:
Dispose of spilled, neutralized, or waste product, contaminated soil and other contaminated materials in accordance with all local, state and federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Ventilation: Open window or local exhaust.
Protective Equipment (Respiratory, Eye, Etc.):
Safety glasses; respirator; rubber gloves.

SECTION IX - SPECIAL PRECAUTIONS

Storage & Handling: Store in cool place away from high heat, sparks, open flame or oxidizing agents.

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SECTION X - DISCLOSURE

Disclosure Information:
The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein.