Hubbard-Hall

Safety Data Sheet

Better Chemistry. **Better Business**

SYSTEM II - DELTA **Revised:** 12/30/14

1 IDENTIFICATION

Product Code :2701010

Recommended use of the chemical and restrictions on use: Liquid Acid Mixture for Metal Finishing

Hubbard-Hall Inc.
563 South Leonard Street
Waterbury, CT 06708
Telephone: 203-756-5521
Fax number: 203-756-9017

Emergency Phone Number
CHEMTREC: 1 (800) 424-9300
International: 1 (703) 527-3887

2 HAZARDS IDENTIFICATION

Signal Word: DANGER

Hazard Category: Corrosive to Metals Hazard Category 1
Acute Toxicity-Oral Hazard Category 4
Skin Corrosion/Irritation Hazard Category 2
Eye Damage/Irritation Hazard Category 1
Acute Aquatic Toxicity-Category 2
Sensitization-Skin Hazard Category 1B

Hazard Statements: May be corrosive to metals.
Harmful if swallowed.
Causes skin irritation.
Causes serious eye damage.
Toxic to aquatic life
May cause an allergic skin reaction.

Prevention: Keep only in original container.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid releases to the environment
Wear rubber gloves, goggles and chemical protective clothing.

Response: If swallowed: Call poison center, if you feel unwell.
Rinse Mouth.
If on skin: Wash with plenty of water.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy tc

Immediately call poison center or doctor and explain the type of exposure to the chemical(s) and provide t
If skin irritation or rash occurs, get medical advice/attention.
Take off immediately all contaminated clothing and wash it before reuse.
Absorb spillage to prevent material damage.

Storage: Store in corrosive resistant high density polyethylene container.

Disposal: Dispose of contents/container in accordance with local, regional, national, or international regulations.

3 COMPOSITION INFORMATION

Chemical Name	Common Name And Synonyms	CAS No. and other Unique identifiers	Concentration %
Ferric Chloride	Iron(III) Chloride	7705-08-0	<30%
Isopropanol	Isopropyl alcohol	67-63-0	<5%

4 FIRST AID

After Inhalation:

Move to fresh air. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one way valve or other proper respiratory device. Call a physician or poison control center imediately.

After Skin Contact:

Take off immediately all contaminated clothing. Wash off IMMEDIATELY with plenty of water for at least 15-20 minutes. Get medical attention immediately! Wash clothing separately before reuse. Destroy or thoroughly clean all contaminated shoes.

After Eye Contact:

Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Call a physician or poison control center immediately.

After Ingestion:

DO NOT induce vomiting. Immediately give large quantities of water or milk, if available. If vomiting does occur, give fluids again. Never give anything by mouth to an unconscious person. Call a physician or the nearest Poison Control Center.

Most Important Symptoms/Effects

Inhalation:

May give off vapor,gas or dust that is very irritating or corrosive to the respiratory system.

Eye:

Severe eye and or skin irritation or burns.

Skin:

Causes severe skin burns

Skin:

May cause an allergic skin reaction.

Ingestion:

Harmfil if swallowed. May cause burns to mouth, throat and stomach.

Indication of immediate medical attention:

Provide general supportive measures and treat symptomatically. Symptons may be delayed. Keep victim under observation.

5 FIRE FIGHTING MEASURES

Suitable and Unsuitable extinguishing media: Will not burn or support combustion. Use extinguishing media appropriate for surrounding fire, such as water spray, dry chemical, foam or carbon dioxide.

Specific hazards arising from the chemical:	Heat and fire may result in the release of corrosive fumes.
Special protective equipment and precautions for firefighter	Fire fighters should enter area only if they are protected from all contact with the materail. Full protective clothing, including self-contained breathing apparatus, coat, pants, gloves, boots and bands around legs, arms, and waist, should be worn. No skin surfaces should be exposed.

6 ACCIDENTAL RELEASE MEASURES

Methods and Materials for containment & cleaning up:	If OSHA trained: dam spills if possible; then neutralize spill with soda ash or lime. Flush with water to a chemical sewer or disposal system. This neutralization procedure should be conducted with good ventilation. Discharge to a disposal system. In order to be completely informed on the latest regulations for your area, please contact the local authorities.

7 HANDLING AND STORAGE

Precautions for safe handling:	Wear rubber gloves, goggles and chemical protective clothing. Do not get in eyes, or on skin, or on clothing. Eating, drinking and smoking in the work area is prohibited. Keep only in original container .
Conditions for safe storage, inc any incompatibilities:	Store in corrosive resistant container. Store locked up.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	Std.	TWA-8hrs	STEL - 15 min.
Ferric Chloride	ACGIH	1 mg/m3 as Fe	
Isopropanol	ACGIH	400 ppm	500 ppm

ACGIH - American Control of Governmental Hygenists
OSHA - Occupational Safety and Health Administration

Ventilation:	Use local exhaust to keep personal exposures below the OSHA Permissible Exposure Limit (s) (PEL) or the ACGIH threshold Limit Values (TLV)Time Weight Average (TWA).
Respiratory Protection:	A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI 788.2 or applicable federal requirements must be followed whenever work place conditions warrant respirator use. NIOSH's Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.
Protective Gloves:	Acid resistant rubber.
Eye Protection:	Wear chemical safety goggles.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark amber to greenish liquid
Odor:	Mild acidic odor
Odor Threshold:	N/A
PH:	Below 1
Melting Point/Freezing Point:	N/A
Initial Boiling Point and Boiling Range:	N/A
Flash Point:	None

Evaporation Rate:	N/A
Flammability (solid, gas):	N/A
Upper/Lower flammability or explosive limits:	N/A
Vapor Pressure:	N/A
Vapor Density:	N/A
Relative Density:	1.085
Solubility (ies):	Complete in water
Partition Coefficient; n-octanol/water:	N/A
Auto-ignition Temperature:	N/A
Decomposition Temperature:	N/A
Viscosity:	N/A

10 STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur.
Conditions to Avoid:	Contact with incompatible materials
Incompatible Materials:	Strong oxidizing agents. Metals and Alkalis.

11 TOXICOLOGICAL INFORMATION

Oral Administration:	Ferric Chloride-LD50(Rat)-316 mg/kg
Oral Administration:	Isopropanol-LD50-(Rat)-4700-5800 mg/kg
Dermal administration:	Isopropanol-LD50(Rabbit)-13,000 mg/kg
Irritation:	Severe irritation or burns to skin, eyes and respiratory system
Immediate effects:	Severe irritation or burns to skin, eyes and respiratory system
Cancer Hazard:	Not listed by IARC, NTP, OSHA, ACGIH
Routes of Exposure	Eyes, Skin, Inhalation, Ingestion

12 ECOLOGICAL INFORMATION

Lepomis macrochirus,	Ferric Chloride-LC50-20.26 mg/L-96 h
Daphnia Magna,	Ferric ChlorideEC50-9600 ug/l 48 h
Persistence and Degradability:	Not Available
Biotic degradability:	No data avaiilable
Water result:	Disperses in water.
Soil/Sediment Result:	No data avaiilable

13 DISPOSAL CONSIDERATION

Dispose of in accordance with local, state and federal regulations.

14 TRANSPORT INFORMATION

UN Number:	1760
UN Proper Shipping Name:	CORROSIVE LIQUIDS, N.O.S. (CONTAINS FERRIC CHLORIDE),
Transport Hazard Class (es):	8
Packing Group:	III
ERG:	154

15 REGULATORY INFORMATION

HMIS: Health: 3 Flammability: 0 Reactivity: 1

Cercla	Ferric Chloride RQ=1000 lbs
Sara Hazard Classification	SARA Hazard Categories: Immediate Hazard:Yes Delayed Hazard:No Fire Hazard-No Pressure Hazard-No Reactivity Hazard-yes

16 OTHER INFORMATION

Disclaimer: The information is based on our knowledge to date but does not constitute an assurance of product properties and does not imply a legal contractual relationship.