MSDS AND PROPERTIES

Title	Description
Iupacname	Iron(lll)chloride. Iron trichloride
Other names-	Ferric chloride
CAS number-	7705-08-0 ,10025-77-1 (hexahydrate)
UN number-	1773 (anhydrous) 2582 (aq. soln.)
Properties-	
Molecular formula-	FeCl3
Molar mass-	162.2 g/mol (anhydrous) 270.3 g/mol (hexahydrate)
Appearance-	green-black by reflected light; purple-red by transmitted light
Hexahydrate-	yellow solid
aq. Solutions-	brown
Odor-	slight HCl
Density-	2.898 g/cm3 (anhydrous) 1.82 g/cm3 (hexahydrate)
Melting point-	306 °C (anhydrous) 37 °C (hexahydrate)
Boiling point-	315 °C (anhydrous, decomp) 280 °C (hexahydrate, decomp) (partial decomposition to FeCl2 + Cl2)
Solubility in water-	74.4 g/100 mL (0 °C) [1] 92 g/100 mL (hexahydrate, 20 °C) Solubility in acetone Methanol Ethanol Diethyl ether-63 g/100 ml (18 °C)

Title	Description
highly soluble-	83 g/100 ml
Viscosity-	40% solution: 12 cP
Structure-	Crystal structure hexagonal Coordination Geometry octahedral
Flash point-	non-flammable
Related compounds-	Other anions, Iron(III) fluoride, Iron(III) bromide.Other cations ,Iron(II) chloride Manganese(II) chloride Cobalt(II) chloride Ruthenium(III) chloride.

CHEMICAL IDENTIFICATION

Title	Description
Name	Ferric Chloride Solution
Synonyms	Iron Chloride, Iron 3 chloride, iron tri chl;oride
CAS #	7705-08-0
Formula	FeCl3
Molecular Wt.	162.2(100% Basis)
Chemical classification	Inorganic acidic salt, solution
ITC Number	28273300
BIS No.	IS 711-1970

Title	Description
CAS No.	7705-08-0
EINECS No.	231-729-4

PHYSICAL AND CHEMICAL DATA

Title	Description
Form	Liquid solution with 40+- 2 % Ferric chloride in water
Specific gravity	1.42 to 1.46 at 30° C
Appearance	Dark brown liquid
Boiling Point	106° C (223° F)
PH	<2 (less then 2)
Melting Point	-50°C (-58°F)
Solubility in water	Complete
Vapour Pressure	40 mmHg @ 35°C
% Volatile	55-73% (water)
Evaporation Ratio	None found
Odor	Slightly Acrid

FIRE AND EXPLOSION HAZARD DATA

Title	Description
Flash Point	N.A
Autoignition	N.A
Flammable limit in air	None
Hazard Class	Non Flammable
Extinguishing media	Will not burn; use appropriate material for surrounding fire

REACTIVITY

Title	Description
Stability	stable
Decomposition	Will not occur
Polymerization	Will not occur
Incompatibility	Rapid corrodes most metal, Aluminum/ Aluminum alloy carbon steel, Stainless steel and copper alloy. Avoid contact with nylon.

EMERGENCY AND FIRST AID DATA

Title	Description
Contact with skin	Wash with water, Remove contaminated clothing. If there is skin irritation, get medical attention.
Contact with eyes	Wash with large amount of water, lifting the eyelids occasionally. Get medical attention immediately.

Title	Description
Ingestion	An antidote should be taken immediately, such as sodium bicarbonate or anti acid tablets to neutralize the acidity of Ferric chloride. Drink plenty of water but do not induce vomiting. Consult a doctor.

PREVENTIVE MEASURES

Title	Description
Ventilation	Work area should be properly Ventilated
Clothing	Appropriate clothing to prevent contact of the liquid with the skin, use rubber gloves to protect hands.
Eye- Protection	Use safety glass or goggles to prevent eye contact with the solution. Eyewash should be available in the work place
Incompatibility	Rapid corrodes, most metal, Aluminum/ aluminum alloy carbon steel, Stainless steel and copper alloys. Avoid contact with nylon.

SPILLS, LEAKS AND DISPOSAL PROCEDURE

Title	Description
-	Spilled Ferric Chloride should be flushed out with water