



WATER SPECIALIST SUPPLY CO.,LTD.

Call : 034-440-851-3, 095-367-5790

Sales : 089-695-8181, 083-705-1000, 089-160-6121

MATERIAL SAFETY DATA SHEET

FERRIC CHLORIDE

PRODUCT:FERRIC CHLORIDE

SECTION 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

WATER SPECIALIST SUPPLY CO.,LTD.

78/7 Moo4 Khae Rai, Krathum Baen, Samut Sakhon 74110

Call (+66) 34-440-851 to 3 , (+66) 95-367-5790

Fax (+66) 34-440-851 to 3 ext.105

Email : Water_wss@hotmail.com

PREPARED BY..... Water Specialist Supply CO.,LTD
PREPARATION DATE..... 6/September/16
PRODUCT NAME.....Ferric Chloride Solution.
SYNOYMS NAME.....Iron Chloride, Iron II Chloride,
. Iron Tri Chloride
CHEMICAL FORMULA.....FeCl₃ .
MOLECULAR WEIGHT.....162.2 g/mol (100%Basis)
CHEMICAL FAMILY..... Inorganic Acid Salt,Solution.
PRODUCT USE.....For laboratory and manufacturing use
. only.
EMERGENCY PHONE NO..... (+66)34-440-851 to 3 or (+66)95-367-5790

SECTION 02 : COMPOSITION/INFORMATION ON INGREDIENT

Content Ingredients %	Hazardous	C.A.S.#
Water 60-65%	NO	7732-18-5
Ferric Chloride 35-40%	YES	7705-08-0
Ferrous Chloride 0.1-0.7%	YES	7758-94-3

SECTION 03: HAZARDS IDENTIFICATION

Potential Health Effects

Routes of Exposure:

Ferric chloride can affect the body if it ingested or if it comes in contact with eyes or skin.

Inhalation:

Avoid inhaling concentrated vapour or mist, may cause irritation of the upper respiratory tract.

Ingestion:

This material is toxic by ingestion. Symptoms may include nausea, vomiting, gastrointestinal irritation, burns to mouth and throat. Repeated ingestion of sublethal doses may lead to excessive deposition in the tissues accompanied by pancreatic and liver damage.

Skin Contact:

May causes skin irritation with discomfort or rash, skin burns, or ulceration. Ferric chloride has been infrequently associate with skin sensitisation in humans.

Eye Contact:

This product may cause irritation. Human health effects of overexposure by eye contact may include discolouration of eye tissues, eye irritation and discomfort, tearing and blurring of vision or eye corrosion with corneal or conjunctival ulceration.

Effect Overexposure :

Ingestion in higher doses may lead to abnormal liver function with nausea or vomiting, reduce appetite, abnormal pain, lethargy, tarry stools, diarrhea, fast and weak pulse, hypertension, dehydration, acidosis, and coma. Temporary alteration of the heart's electrical activity may result in irregular pulse, palpitations, or inadequate circulation. If death doesn't occur immediately, symptoms may clear in a few hours but return within a day with cyanosis, pulmonary oedema, shock, convulsion, acidosis, fever, and death. Individual with pre-existing diseases of the liver may have increased susceptibility to the toxicity of repeated exposures.

SECTION 04 : FIRST AID MEASURES

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion :

DO NOT INDUCE VOMITING. Give large quantities of water, then an antidote, such as sodium bicarbonate or anti acid tablets to neutralise the acidity of Ferric Chloride. Never give anything by mouth to an unconscious individual. Get medical attention immediately

Skin Contact:

Flush skin with water. Remove contaminated clothing; wash before reuse. If there is skin irritation, get medical attention.

Eye contact:

Immediately, flush with large amounts of water for at least 15 minutes while holding eyelid apart. Washing within one minute is essential to achieve maximum effectiveness. Get medical attention after flushing.

SECTION 05 :FIRE FIGHTING MEASURES

Unusual Fire and Explosion Hazards:

Closed containers exposure to heat may explode.

Extinguishing Media:

Use extinguishing media appropriate for surrounding fire.

Special Firefighting Procedures:

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in a positive pressure mode. Move exposed containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

Autoignition Temperature: Not applicable. **Flash Point Explosion:** Not applicable.
Explosion Limits: Lower: Not available. **Explosion Limits:Upper:** Not available.

SECTION 06 : ACCIDENTAL RELEASE MEASURES

Review safety precautions before proceeding with clean up. Use appropriate personal protection equipment.

Neutralize spill with lime (Calcium hydroxide), limestone (Calcium Carbonate), or soda ash (Sodium Carbonate).

CAUTION : lime stone and soda ash will evolve CO₂; Ventilation should be provided in enclosed areas. Dike area around spills to prevent spreading, and use absorbent material to pick up spill.

SECTION 07 : HANDLING AND STORAGE

Keep container tightly closed. Store in corrosion-proof area. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapour, liquid); observe all warnings and precautions listed for the product.

SECTION 08 : EXPOSE CONTROL/PERSONAL PROTECTION

Respiratory Protection:

NIOSH/MSHA approved respirator if exposure may, or does exceed occupational exposure limits. Generally, a dust/mist respirator may be worn in areas where the TLV is exceeded up to ten times. Alternatively, a supplied air full face piece respirator or air-lined hood may be worn.

Ventilation :

A system of the local exhaust is recommended to keep employee exposure below the airborne exposure limits. Local exhaust is usually preferred because it controls the emission at its source, preventing dispersion of it into the general work area.

Protective Clothing :

Wear rubber gloves and clean body-covering clothing.

Eye Protection :

Use chemical splash goggles or face shield where splashing of the solution is possible.

Other Protective Clothing or Equipment :

Rubber boots, rain suit or rubber apron, face shield.

Work/Hygienic Practices : An eye wash and safety shower should be readily accessible.

Wash hands thoroughly after handling.

SECTION 09 :PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Colour:	Dark brown liquid
Odor:	Slightly acid
pH:	<2
Vapor Pressure:	40 mm Hg@35°C
Vapor Density:	Not available
Evaporation Rate:	Not available
Viscosity:	Not available
Boiling Point:	106 °C(223 °F)
Solubility in water:	Complete
Specific Gravity/Density:	1.38 to 1.42 g/cm ³
Molecular Formula:	FeCl ₃
Molecular Weight:	162.2 g/mol (100%Basis)

SECTION 10:STABILITY AND REACTIVITY

Stability:

Stable at normal temperatures and pressure.

Incompatibilities :

Rapidly corrodes most metals (titanium is one exception); may generate flammable, potentially explosive hydrogen gas. Avoid contact with strong oxidising agent, nylon, aluminium/aluminium alloys, carbon steel, stainless steel, and copper/copper alloys.

Hazardous Decomposition Product :

When heated to decomposition, emits toxic hydrogen chloride or chlorine.

Hazardous Polymerization :

Will not occur.

SECTION 11 : TOXICOLOGICAL INFORMATION

Carcinogenicity : None of the components of this material are listed as a carcinogen by IARC, NTP, OSHA, or ACGIH.



SECTION 12 : ECOLOGICAL CONSIDERATION

Environmental Fate : No information found.

Environmental Toxicity : No information found.



SECTION 13 : DISPOSAL CONSIDERATION

Dispose of waste in accordance with applicable federal, state, and local laws.

SECTION 14 : TRANSPORT INFORMATION

DOT

Proper Shipping Name: Ferric chloride solution

Hazard Class: Class 8

UN/NA Number: UN2582

DOT Labels: Corrosive

DOT Placards: Corrosive

Packing Group: III

IMO

Shipping Name: Ferric chloride solution

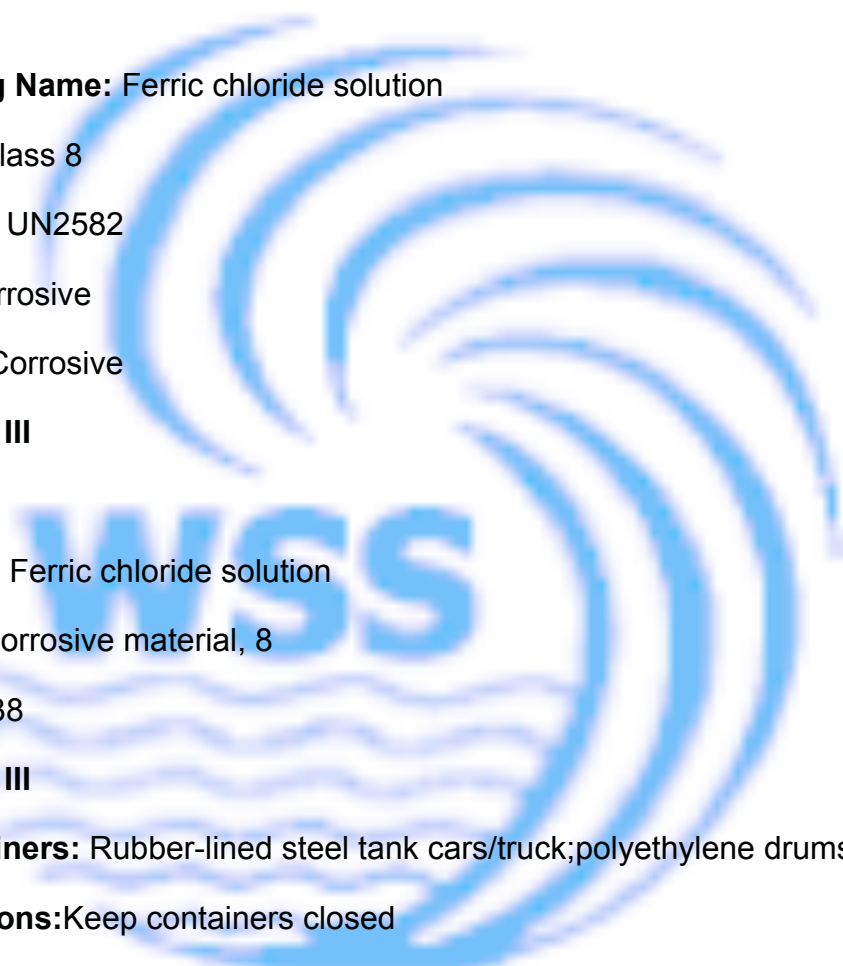
Hazard Class: Corrosive material, 8

UN Number: 2538

Packing Group: III

Shipping Containers: Rubber-lined steel tank cars/truck; polyethylene drums, bottles

Storage Conditions: Keep containers closed

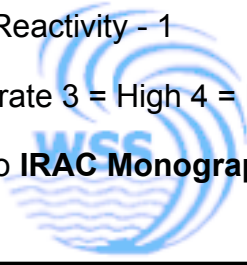


SECTION 15 :REGULATORY INFORMATION

NFPA Rating: Health - 2; Fire - 0; Reactivity - 1

0 = Insignificant 1 = slight 2= Moderate 3 = High 4 = Extreme

Carcinogenicity List : No **NTP:** No **IRAC Monograph:** No **OSHA Regulated:** No



SECTION 16 :OTHER INFORMATION

Disclaimer :

Water Specialist Supply(WSS THAILAND) CO.,Ltd provide information contained here in good faith but make no representation as to its comprehensiveness or accuracy.This document is intended only as a guide to the appropriate precautionary handing of the material by a properly trained person using this product.Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.