

SAFETY DATA SHEET

Date of preparation : 26 May, 2024

SECTION 1 : TRANSPORT INFORMATION

Correct technical name : Ferrous Chloride
 Label : Corrosive
 UN Number : 1760
 IMDG/IATA class : 8



For further transportation information regarding this product, please phone:
Hou Jan Industrial CO., LTD. +886-3-4837583.

SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENT

Chemical Name	Ingredient
Ferric chloride	25 %
Water	75 %

SECTION 3 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Dark green liquid
 Odour : Mild
 Solubility in water : Very soluble
 Boiling Point (°C) : 230
 Freezing Point (°C) : -9 °C to -6 °C
 Vapor Pressure(mm of Hg at 25°C) : 40 mmHg
 Percentage Volatiles : N/A
 Evaporation Rate : N/A
 Vapour Density (air = 1) : N/A
 Specific Gravity : 1.40
 Flash point : N/A (non-combustible)
 Autoignition temperature : N/A
 Flammable limit (%) : N/A

SECTION 4 : HAZARD IDENTIFICATION***Fire or Explosion Hazard***

Material does not burn

Fire or heat will produce irritating, poisonous and/or corrosive gases

Containers may explode when heated

Some may ignite combustibles (wood, paper, clothing etc)

Contact with metals may evolve flammable hydrogen gas

Some may decompose explosively (D) polymerize violently (P) when heated or involved in a fire

Health Hazard

Threshold limit value(TLV/TWA) : 1 mg/m³

Routes to entry into body : Direct contact, inhalation, ingestion

Effects after

- i) Skin contact : Penetrates skin readily, causes stain and irritation to skin
- ii) Eye contact : Causes irritation, pain and redness of the eyes, may cause burns in severe cases
- iii) Inhalation : No effect
- iv) Ingestion : Toxic, may cause nausea and vomiting

v) Repeated Overexposure : Prolonged exposure may cause dermatitis

SECTION 5 : FIRST AID MEASURES

Eye contact	: Flush with running water for at least 15 minutes
Skin contact	: Remove contaminated clothing and shoes immediately. Flush with running water for at least 15 minutes, avoid spreading material on unaffected skin
Ingestion	: Remove victim to fresh air – apply resuscitation if victim is not breathing – Do not use direct mouth-to-mouth resuscitation method. Immediately summon for doctor. If the person is conscious, give water or milk. Do not induce vomiting.

Keep victim warm and quiet – Obtain immediate medical care – Ensure that attending medical personnel are aware of the identity and nature of the product(s) involved, and take precautions to protect themselves.

SECTION 6 : FIRE FIGHTING MEASURES

Flash point	: N/A (non-combustible)
Explosion limit	lower : N/A upper : N/A
Auto-ignition temperature	: Non- applicable
Fire fighting measures	: Suitable fire-fighting media (Since no fire or explosion hazards exist directly from FeCl_3 , fire-fighting equipment suitable for surrounding fire should be provided.)
Small fires	: Use dry chemical, CO_2 or water spray If safe to do so, move undamaged containers from fire area.
Large fire	: Use dry chemical, CO_2 , foam or water spray – Do not use water jets Cool containers with flooding quantities of water until well after fire is out avoid getting water inside containers
Fire involving tanks	: Fight fire from protected position or use unmanned hose holder or monitor nozzles Withdraw immediately in case of rising sound from venting safety devices or discolouration of tank Always stay away from tank ends

SECTION 7 : ACCIDENTAL RELEASE MEASURE

Steps to be taken	:1. Any spill or leakage should be reported to the safety personnel. 2. Wear full personal protective clothing, rubber gloves and boots. 3. Prevent further leakage and contain the spillage whenever it is safe to do so 4. For small amount, flush with large amount of water. 5. For large amount, render harmless by neutralizing with alkali eg. hydrated lime. Collect and contain the neutralized material for proper disposal.
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Note : Inform fire brigade/police for further assistance if necessary.

Waste disposal method : Neutralise and dispose in accordance to all applicable environmental regulations.

SECTION 8 : HANDLING AND STORAGE

Handling : Avoid smoking and use of open fire. Avoid inhalation of vapours and contact with skin and eyes. Observe good industrial practices.

Piping , pumps, valves and other handling equipment made should be lined or coated with polyvinyl chloride, rubber, glass, ceramic materials and various other plastics.

Storage : Steel tank lined with rubber, or fiberglass reinforced polyester tanks Linings of FRP, PVC or epoxy may be inserted into existing storage tanks.

The exterior surface of storage tanks and other areas which may be exposed to accidental splashed should be protected with corrosion-resistant paint or rubber mats.

SECTION 9 : EXPOSURE CONTROL AND PERSONAL PROTECTION

a. Exposure Limit	: Non-applicable
b. Personal protection	:
Eye/Skin Protection	: Safety glasses/goggles, rubber apron, chemical coat, rubber gloves, rubber boots.
Respiratory protection	: None required where adequate ventilation conditions exists. If airborne concentration is high, a dust/mist respirator is recommended. If concentration exceeds capacity of respirator, a self-contained breathing apparatus is advised.
Industrial hygiene	: 1.Wash hands and/or face after working with FeCl ₂ 2.Always remove contaminated clothing immediately.

SECTION 10 : STABILITY AND REACTIVITY

Stability	: Stable
Conditions to avoid	: Light, heat
Incompatible substances to avoid	: Most common metals, aluminium, strong bases, strong oxidizing agents, potassium metal
Hazardous decomposition products	: Hydrogen chloride
Hazardous polymerization	: Will not occur

SECTION 11 : TOXICOLOGICAL INFORMATION

Toxicity Data	: N/A
Carcinogenicity	: N/A
Reproductive Effect	: N/A
Effects of overexposure	: N/A
Chronic effects	: N/A
Target organs	: N/A
Medical Conditions Generally Aggravated by exposure	: N/A

SECTION 12 : ECOLOGICAL INFORMATION

Mobility &	: N/A
Bioaccumulation	: N/A
Biodegradability	: N/A
Aquatic Toxicity	: N/A

SECTION 13 : DISPOSAL INFORMATION

Disposal of waste to be in accordance with the Environmental Quality Act and other guidelines issued by DOE and/or local authorities.

SECTION 14 : CHEMICAL PRODUCT

Product Details

Product Name	: Ferrous Chloride
Trade	: Ferrous Chloride
Chemical Name	: Iron (II) Chloride
Chemical Formula	: FeCl ₂
Chemical Family	: End Chlorine
Manufacturer's Code	: N/A
Use	: waste water treatment as coagulant-flocculant.

SECTION 15: Legal information

Applicable laws and regulations :

- 1.1 Council of Labor Affairs, hazardous materials and hazardous materials of general rules.
- 1.2 Ministry of Communications National Police Agency, Traffic Law - road safety rules.
- 1.2 .Environmental Protection Administration, industrial waste storage, disposal method and facility standards.

SECTION 16: Other information

1.1 Company Identification

Manufacturer's Name	: Hou Jan Industrial Co., LTD
Manufacturer's Address	: No.5 Ching Chien 3 rd Road Kuan-Yin Industrial Park Taoyuan, TAIWAN.
Importer's/Distribution's Name and Address	: N/A
Telephone Number	: +886-3-4837583
Emergency Telephone Number	: +886-3-4837583

1.2 Contact Point

Designation	: General Manager
Tel No.	: +886-3-4837583