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*Vinayak Industries*

# MATERIAL SAFETY DATA SHEET

## FERRIC CHLORIDE HEXAHYDRATE

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**MSDS Name: FERRIC CHLORIDE HEXAHYDRATE (LUMPS)**

CAS#: 10025-77-1

CHEMICAL NAME: FERRIC CHLORIDE HEXAHYDRATE (  $\text{FeCl}_3 \cdot 6\text{H}_2\text{O}$  )

Synonyms: FERRIC / iron(III) chloride HEXAHYDRATE/LUMPS

#### Company Identification:

#### VINAYAK INDUSTRIES

PLOT-3/11, GIDC,SARIGAM

ST-BHILAD.GUJRAT.

INDIA-396155

Company Phone Number: **+912602781067**

Emergency Phone Number: **+919898615513**

### SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

#### COMPOSITION:

Name cas # % by weight

Ferric chloride hexahydrate 10025-77-1 100

**HSN CODE : 28273990**



## SECTION 3 - HAZARDS IDENTIFICATION

### Emergency Overview

**Appearance:** yellow-orange to dark brown lumps

**Caution!** May be harmful if swallowed.

**Target Organs:** none known.

### Potential Health Effects

**Eye:** very hazardous with direct contact May cause mild eye irritation.

**Skin:** very hazardous with direct contact May cause mild skin irritation.

**Ingestion:** Ingestion can result in abdominal pain, vomiting with blood, diarrhea, dehydration, shock, pallor, cyanosis, hypothermia, acidosis, coagulation defects, respiratory and cardiac involvement, vasomotor instability leading to coma and death. Survivors may develop reversible liver damage, gastric scarring and pyloric obstruction.

**Inhalation:** very hazardous with direct contact May cause respiratory tract irritation.

**Chronic:** very hazardous with direct contact May cause dermatitis and conjunctivitis. Repeated ingestion may cause hemosiderosis, possible liver and pancreatic damage.

## SECTION 4 - FIRST AID MEASURES

### Potential Health Effects

**Eye:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

**Skin:** Get medical aid. Immediately flush skin with plenty of soap and cold water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** (QUALIFIED MEDICAL PERSONNEL ONLY)...if not in shock or coma, induce emesis and follow with gastric lavage using deferoxamine, 2 grams/liter solution containing 20gram/liter sodium bicarbonate in water. Leave 10 grams deferoxamine in 50ml of 5% sodium bicarbonate in stomach. Treat for shock, maintain airway and blood pressure.

**Inhalation:** Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

**Notes to Physician:** Treat symptomatically and supportively.



## SECTION 5 - FIRE FIGHTING MEASURES

<b>General Information:</b>	Negligible fire and explosion hazard when exposed to heat or flame. Move container if possible, avoid breathing vapors or dust. Avoid corrosive vapors or hydrogen chloride formed by thermal decomposition.
<b>Extinguishing Media:</b>	For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.
<b>Autoignition Temperature:</b>	No information found.
<b>Flash Point:</b>	Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.
<b>NFPA Rating:</b>	CAS# 10025-77-1: Not published.
<b>Explosion Limits:</b>	Lower: Upper:
<b>Mechanical Impact:</b>	Not available.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

<b>General Information:</b>	Use proper personal protective equipment as indicated in Section 8.
<b>Spills/Leaks:</b>	Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Do not get water inside container. Do not touch spilled material. use water spray to reduce vapors. Call for assistance on disposal.

## SECTION 7 - HANDLING AND STORAGE

<b>Handling:</b>	Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.
<b>Storage:</b>	very hygroscopic. Do not store in metal containers. Protect from heat. Store in glass or approved plastic containers only, keep capped. Keep locked up and dry container. Keep it cool area. Do not store above 240C(760F) Don't ingest or breath. Never add water to this product.



## SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

<b>Engineering Controls:</b>	Provide local exhaust or general dilution ventilation.
<b>Exposure Limits:</b>	Not available
<b>OSHA Vacated PELs:</b>	Not available

### Personal Protective Equipment

<b>Eyes:</b>	Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.
<b>Skin:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Solid (solid or lumps)
<b>Color:</b>	Yellow-orange to dark brown
<b>Odor:</b>	Slight hydrogen chloride
<b>pH:</b>	Acidic
<b>Specific gravity:</b>	1.82 (WATER = 1)
<b>Vapor Pressure:</b>	No information found.
<b>Vapor Density:</b>	No information found.
<b>Evaporation Rate:</b>	No information found.
<b>Viscosity:</b>	No information found.
<b>Melting point:</b>	37 0 (980 f)
<b>Boiling Point:</b>	536F
<b>Freezing/Melting Point:</b>	99F
<b>Decomposition Temperature:</b>	572F
<b>Solubility in water:</b>	Soluble.
<b>Specific Gravity/Density:</b>	1.82
<b>Molecular Formula:</b>	FeCl <sub>3</sub> .6H <sub>2</sub> O
<b>Molecular Weight:</b>	270.29



## SECTION 10 - STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under normal temperatures and pressures.
<b>Conditions to Avoid:</b>	High temperatures, moisture.
<b>Incompatibilities with Other Materials:</b>	Oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Hydrogen chloride.
<b>Hazardous Polymerization:</b>	Has not been reported
<b>Corrosivity:</b>	Non corrosive in presence of glass.

## SECTION 11 - TOXICOLOGICAL INFORMATION

<b>RTECS:</b>	CAS# 10025-77-1: NO5425000.
<b>LD50/LC50:</b>	CAS# 10025-77-1: No information found.
<b>Epidemiology:</b>	Ferric chloride, hexahydrate is an eye, mucous membrane, and skin irritant; poisoning affects digestive tract, respiratory, cardiovascular, and central nervous systems, liver and kidneys.

## SECTION 12 - ECOLOGICAL INFORMATION

**No information found.**

## SECTION 13 - DISPOSAL CONSIDERATIONS

**Dispose of in accordance with Federal, State, and local regulations.**



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## SECTION 14 - TRANSPORT INFORMATION AS PER IATA

**Shipping Name:** FERRIC CHLORIDE HEXAHYDRATE (LUMPS)  
**Hazard Class:** 8 (CORROSIVE)  
**UN Number:** UN-1773  
**Packing Group:** PG III  
**Shipping containers:** un approved drums/carboys/boxes  
**Shipping condition :** keep containers closed and material below 35o C temp.

## SECTION 15 - REGULATORY INFORMATION

### FEDERAL AND STATE REGULATION

**TSCA:** CAS# 10025-77-1 ferric chloride hexahydrate is not on the TSCA Inventory, however, its anhydrous form is on the inventory and so this hydrate is exempt from TSCA Inventory requirements (40CFR270.3(u)(2)).

## SECTION 16 - OTHER INFORMATION

### FEDERAL AND STATE REGULATION

**MSDS Creation Date:** May 19, 2014  
**Revision Date:** July 31, 2018

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