MATERIAL SAFETY DATA SHEET

Ferric Chloride Liquid

Section 1: Chemical Product and Company Identification

Product Name	Ferric Chloride
Catalog Codes	SLF1105
CAS#	Mixture
RTECS	Not applicable
TSCA	TSCA 8(b) inventory: Ferric chloride; Water
CI#	Not available
Chemical Name	Ferric Chloride
Chemical Formula	fecl3
Contact Information	Cosmo Chemistry 713, 7th Floor, Millennium Business Hub Sarthana Jakatnaka, Varachha Main Road, Surat Gujarat, India – 395006 info@cosmochemistryindia.com Contact No.: +91 979797 7958

Section 2: Composition and Information on Ingredients

Composition

Name	CAS #	% by Weight
Ferric chloride	7705-08-0	40
Water	7732-18-5	60

Section 3: Hazards Identification

Potential Acute Health Effects

Extremely hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Very hazardous in case of skin contact (corrosive). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract.

Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath.

Inflammation of the eye is characterized by redness, watering, and itching.

Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects

Extremely hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Very hazardous in case of skin contact (corrosive).

Non-sensitizer for skin.
Non-permeator by skin.

CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.

The substance is toxic to lungs, mucous membranes.

Repeated or prolonged exposure to the substance can produce target organs damage.

Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation.

Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Repeated or prolonged inhalation of vapors may lead to chronic respiratory irritation.

Section 4: First Aid Measures

Eye Contact

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.

Cold water may be used.

Do not use an eye ointment. Seek medical attention.

Skin Contact

If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible.

Place the victim under a deluge shower.

Gently wash contaminated skin with running water and non-abrasive soap.

Clean folds, crevices and groin carefully.

Cold water may be used.

If irritation persists seek medical attention.

Wash contaminated clothing before reuse.

Serious Skin Contact

Wash with disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation

Evacuate victim to safe area.

Loosen tight clothing such as collar, tie, belt or waistband.

If breathing is difficult administer oxygen.

If victim is not breathing perform mouth-to-mouth resuscitation.

Seek immediate medical attention.

Ingestion

Do not induce vomiting.

Loosen tight clothing.

If victim is not breathing perform mouth-to-mouth resuscitation.

Seek immediate medical attention.

Serious Ingestion

Not available.

Section 5: Fire and Explosion Data

Item	Information
Flammability of Product	Non-flammable
Auto-Ignition Temperature	Not applicable
Flash Points	Not applicable
Flammable Limits	Not applicable
Products of Combustion	Not available

Fire Hazards in Presence of Various Substances

Not applicable.

Explosion Hazards in Presence of Various Substances

Situation	Information
Mechanical Impact	Not available
Static Discharge	Not available

Fire Fighting Media and Instructions

Not applicable.

Special Remarks on Fire Hazards

Not available.

Special Remarks on Explosion Hazards

Not available.

Section 6: Accidental Release Measures

Dilute with water and mop up, or absorb with inert dry material and place in an appropriate waste disposal container.

Neutralize residue with dilute solution of sodium carbonate.

Large Spill

Corrosive liquid.

Stop leak if without risk.

Absorb with dry earth, sand or other non-combustible material.

Do not get water inside container.

Use water spray curtain to divert vapor drift.

Prevent entry into sewers, basements or confined areas.

Neutralize residue with dilute sodium carbonate.

Section 7: Handling and Storage

Precautions

Keep container dry.

Do not ingest.

Do not breathe gas/fumes/vapor/spray.

Never add water to this product.

If ingested seek medical advice immediately.

Avoid contact with skin and eyes.

Storage

Store at room temperature of 25 degree centigrade

May corrode metallic surfaces.

Store in metallic or coated fiberboard drum with polyethylene inner packaging.

Store corrosive materials in separate safety storage cabinet.

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Provide exhaust ventilation to keep airborne concentrations below TLV limits.

Ensure eyewash stations and safety showers near work station.

Personal Protection

- Face shield
- Full suit
- Vapor respirator
- Approved respirator
- Gloves
- Boots

Personal Protection in Case of Large Spill

- Splash goggles
- Full suit
- Vapor respirator
- Boots
- Gloves
- Self-contained breathing apparatus

Exposure Limits

Ferric chloride

Limit	Value
TWA	1 mg/m³
CEIL	2 mg/m³

Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Property	Value
Physical state	Liquid
Color	Yellowish-brown (dark)
Odor	slightly iron/acid odor
Taste	Not available
Molecular Weight	Not applicable
pH (1% solution)	< 2.0
Boiling Point	100°C (Water)
Melting Point	Not available
Critical Temperature	>35°C temperature , it starts loosing chlorine.
Specific Gravity	1.45 to 1.50
Vapor Pressure	17.535 mm Hg @ 20°C
Vapor Density	0.62 (Air = 1)
Solubility	Easily soluble in cold and hot water

Section 10: Stability and Reactivity Data

Item	Description
Stability	Stable till 25°C
Instability Temperature	Above 25°C
Conditions of Instability	Not available
Incompatibility	Not available

Corrosivity

Highly corrosive in presence of copper.
Non-corrosive in presence of glass.

Polymerization: No

Section 11: Toxicological Information

Parameter	Result
Routes of Entry	Eye contact, inhalation, ingestion
Acute Oral Toxicity	LD50 2250 mg/kg (Rat)
Chronic Effects	Toxic to lungs and mucous membranes

Other Toxic Effects

Extremely hazardous in case of skin contact, ingestion and inhalation.

Section 12: Ecological Information

Parameter	Information
Ecotoxicity	Not available
BOD5 and COD	Not available

Biodegradation

Short term degradation products not likely.

Long term degradation products may arise.

Product and degradation products not toxic.

Section 13: Disposal Considerations

Dispose in accordance with federal, state and local regulations.

Section 14: Transport Information

Item	Details
DOT Classification	Class 8 – Corrosive Material
UN Number	UN2582
Shipping Name	Ferric chloride solution
Packing Group	III

Section 15: Regulatory Information

Federal and State Regulations

Pennsylvania RTK: Ferric chloride
Massachusetts RTK: Ferric chloride
TSCA Inventory: Ferric chloride, Water
CERCLA: Ferric chloride

Other Classifications

WHMIS (Canada)

Class	Description
D-2A	Very toxic
E	Corrosive liquid

DSCL (EEC): R35 – Causes severe burns

HMIS Rating

Hazard	Rating
Health	3
Fire	0
Reactivity	0

NFPA Rating

Hazard	Rating
Health	3
Flammability	0
Reactivity	0

Protective Equipment

Gloves
Full suit
Vapor respirator
Face shield

Section 16: Other Information

References: Not available
Other Special Considerations: Not available

The information above is believed to be accurate and represents the best information currently available to us.

However, we make no warranty of merchantability or any other warranty, express or implied.

Users should determine the suitability of the information for their purposes.

Cosmo Chemistry shall not be liable for any claims, losses, damages or indirect consequences arising from use of this material.