



SAFETY DATA SHEET

FERRIC CHLORIDE SOLUTION 15%

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME: FERRIC CHLORIDE SOLUTION 15%

PRODUCT NO: M053

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EMERGENCY CONTACT NUMBER:

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Corrosive to Metals - Category 1
Acute Toxicity Oral - Category 4
Skin Corrosion - Sub-category 1B
Eye Damage - Category 1
Signal Word: Danger



Hazard Statement(s):

H290 - May be corrosive to metal
H302 – Harmful if swallowed
H314 – Causes severe skin burns and eye damage

Precautionary Statement(s):

P234 – Keep on in original container
P260 – Do not breathe mist/vapours/spray
P264 – Wash hands thoroughly after handling
P270 – Do not eat, drink or smoke when using this product
P280 – Wear protective gloves/protective clothing/eye protection/face protection

Response:

P301+P330+P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P301+P312 – IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell

P303+P361+P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P321 – Specific treatment (see first aid measures on Safety Data Sheet)

P363 – Wash contaminated clothing before re-use

P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing

P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

P310 – Immediately call a POISON CENTER or doctor/physician

P390 – Absorb spillage to prevent material damage

Storage:

P405 – Store locked up

P406 – Store in corrosive resistant container with resistant inner liner

Disposal:

P501 – Dispose of contents/container in accordance with local/regional/national/international regulations

Poisons Schedule (SUSMP): None allocated

3 COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Ferric Chloride	7705-08-0	10-30%	H290 H302 H314
Water	7732-18-5	10-30%	-

4 FIRST-AID MEASURES

For advice, contact a Poisons Information Centre or a Doctor.

INHALATION

Remove victim from area of exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. For all but the most minor symptoms arrange for patient to be seen by a doctor as soon as possible, either on site or at the nearest hospital.

SKIN CONTACT

If spilt on large areas of the skin or hair, immediately drench with running water and remove clothing. Continue to wash skin and hair with plenty of water (and soap if material is insoluble) until advised to stop by the Poisons Information Centre or a doctor.

EYE CONTACT

Immediately wash in and around the eye with large amounts of water for at least 15 minutes. Eyelids to be held apart. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport promptly to hospital or medical centre.

INGESTION

Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically. Can cause corneal burns.

5 FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA

Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

UNSUITABLE EXTINGUISHING MEDIA

Water jet.

HAZCHEM OR EMERGENCY ACTION CODE

2X

SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Non-combustible material.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS

Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

6 ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES/ENVIRONMENTAL PRECAUTIONS

Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

PERSONAL PRECAUTIONS/PROTECTIVE EQUIPMENT/METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain – prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Neutralise with lime or soda ash. Collect and seal in properly labelled containers or drums for disposal. Wash area down with excess water.

7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Avoid skin and eye contact and breathing in vapour, mists and aerosols.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store in cool place and out of direct sunlight. Store away from incompatible materials described in Section 10. Keep containers closed when not in use – check regularly for leaks.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Iron salts, soluble (as Fe): 8hr TWA = 1 mg/m³

TWA – The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

APPROPRIATE ENGINEERING CONTROLS

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Keep containers closed when not in use. If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be

considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT (PPE)

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, CHEMICAL GOGGLES, FACE SHIELD, GLOVES (LONG), APRON, RUBBER BOOTS

Wear overalls, chemical goggles, face shield, elbow-length impervious gloves, splash apron or equivalent chemical impervious outer garment, and rubber boots. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. If determined by a risk assessment an inhalation risk exists, wear a suitable mist respirator.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Colour:	Dark red
Odour:	Acidic
Solubility:	Miscible with water
Specific Gravity:	1.45
Relative Vapour Density (air=1):	Not available
Vapour Pressure (20°C):	Not available
Flash Point (°C):	Not applicable
Flammability Limits (%):	Not applicable
Autoignition Temperature (°C):	Not applicable
Boiling Point/Range (°C):	105-110
pH:	<2

10 STABILITY AND REACTIVITY

REACTIVITY

Reacts with alkalis. Reacts with metals liberating flammable hydrogen gas.

CHEMICAL STABILITY

Stable under normal conditions of use.

POSSIBILITY OF HAZARDOUS REACTIONS

Reacts exothermically with alkalis. Hydrolysis produces hydrogen chloride.

CONDITIONS TO AVOID

Avoid contamination with foreign materials.

INCOMPATIBLE MATERIALS

Incompatible with alkalis, oxidising agents and metals.

HAZARDOUS DECOMPOSITION PRODUCTS

None known.

11 TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

INGESTION

Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

EYE CONTACT

A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.

SKIN CONTACT

Contact with skin will result in severe irritation. Corrosive to skin – may cause skin burns.

INHALATION

Breathing in mists or aerosols may produce respiratory irritation.

ACUTE TOXICITY

No LD50 data available for the product. For the constituent Ferric Chloride:

Oral LD50 (Rat): 316 mg/kg

Oral LD50 (Mice): 200 mg/kg

CHRONIC EFFECTS

No information available for the product.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Avoid contaminating waterways.

TERRESTRIAL TOXICITY

Harmful to terrestrial species.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations.

14 TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT



UN No:	2582
Transport Hazard Class:	8 Corrosive
Packing Group:	III
Proper Shipping Name:	FERRIC CHLORIDE SOLUTION
Technical Name:	
Hazchem or Emergency Action Code:	2X

MARINE TRANSPORT

UN No: 2582
Transport Hazard Class: 8 Corrosive
Packing Group: III
Proper Shipping Name: FERRIC CHLORIDE SOLUTION
Technical Name:
IMDG EMS Fire: F-A
IMDG EMS Spill: S-B

AIR TRANSPORT

UN No: 2582
Transport Hazard Class: 8 Corrosive
Packing Group: III
Proper Shipping Name: FERRIC CHLORIDE SOLUTION
Technical Name:

15 REGULATORY INFORMATION

CLASSIFICATION

Hazardous Substance.

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Corrosive to Metals – Category 1

Acute Oral Toxicity – Category 4

Skin Corrosion – Sub-category 1B

Eye Damage – Category 1

HAZARD STATEMENTS

H290 - May be corrosive to metal

H302 – Harmful if swallowed

H314 – Causes severe skin burns and eye damage

POISONS SCHEDULE (SUSMP): None allocated

16 OTHER INFORMATION

DISCLAIMER

The foregoing data has been compiled for safety information only and does not form part of any selling specification. Information contained in this SDS is to the best of JML's knowledge correct at the time of publication. However, no guarantee is given to its accuracy, reliability or completeness and the information may not be valid if the product is used in combination with other materials or process. It is the responsibility of the user to ensure that the product which they have selected is entirely suitable for their purpose under their conditions of use and in compliance with current regulatory requirements.