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**MATERIAL SAFETY DATA SHEET**  
**Ferric Chloride Solution (26 - 42%)**

**1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY**

**Product name:** Ferric Chloride Solution (26-42%)

**Chemical name:** Iron (III) Chloride

**Formula:** FeCl<sub>3</sub>

**Company undertaking identification:**

**TENNANTS** - CRAIGHEAD, WHISTLEBERRY ROAD  
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**2 HAZARDS IDENTIFICATION**

**Human health hazards:** Causes burns. Irritating to respiratory system.

**3 COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient Name:	%	CAS No.:	EC No.:	Symbol:	R phrases:
Iron (III) Chloride	26-42	7705-08-0	231-729-4	C	34, 37

**Composition:** Contains Ferric Chloride at specified mass concentration.

**4 FIRST AID MEASURES**

**After Skin Contact:** Immediately flood the skin with large quantities of water, preferably under a shower. Remove contaminated clothing as washing proceeds. Contaminated clothing should be washed or dry-cleaned before re-use. Obtain medical attention if blistering occurs or redness persists.

**After Eye Contact:** Immediately flood the eye with plenty of water for at least 10 minutes, holding the eye open. Wash out eye with plenty of water.

**After Ingestion:** Wash out mouth with water. Give sips of cold water or milk to soothe the affected parts. Ingested acid must be diluted by approximately x 100, to render harmless to tissues. Do NOT induce vomiting. Obtain medical attention.

**After Inhalation:** Remove from exposure. Keep warm and at rest. If there is difficulty in breathing, give oxygen. If breathing stops or shows signs of failing, give artificial respiration. Do not use mouth to mouth ventilation. Obtain medical attention urgently.

**Effects and symptoms**

**Skin Contact:** Corrosive to skin on contact. Skin contact may produce burns.

**Eye Contact:** Corrosive to eyes.

**Ingestion:** May be fatal if swallowed. May cause burns to mouth, throat and stomach.

**Inhalation:** Hazardous in case of inhalation (lung irritant). Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking or shortness of breath. Over exposure by inhalation may cause respiratory irritation.

**Aggravating conditions:** 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.

**Notes to physician:** Treatment may be needed for pulmonary oedema, or respiratory failure, which may be delayed following severe over exposure. Following ingestion, treat with milk of magnesia and water.

**5 FIRE FIGHTING MEASURES**

**Suitable Extinguishing Media:** Select extinguishing agent appropriate to other materials involved. Keep containers and surroundings cool with water spray.

**Unusual fire/explosion:** Hazardous Combustion Products: CHLORINE, CHLORIDES.

**Hazardous thermal (de)composition products:**  
Heating may produce: Chlorine Hydrogen Chloride.

**Special hazard during fire fighting:**  
Fire fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.

**Special protective equipment for fire fighters:**  
Wear full protective clothing and self-contained breathing apparatus.

**6 ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** Ventilate the area to dispel toxic decomposition fumes - Wear appropriate protective clothing.

**Environmental precautions:** Advise authorities if spillage has entered water course or sewer or has contaminated soil or vegetation.

**Methods for cleaning up:** Contain and absorb using earth, sand or other inert material. Transfer into suitable containers for recovery or disposal. Finally flush area with plenty of water.

**7 HANDLING AND STORAGE**

**Handling:** Use in a well ventilated area. Avoid inhaling vapour. Avoid contact with eyes, skin and clothing. Emergency shower and eye wash facilities should be readily available.

**Storage:** Storage area should be: cool, dry and well ventilated. Protect from extremes of cold. Suitable storage materials: polyethylene, PVC. Do not store in: stainless steel, metal drums.

**Packaging:** Recommended use - use original container.

**8 EXPOSURE CONTROLS AND PERSONAL PROTECTION**

**Exposure controls:**

INGREDIENT NAME:	CAS No:	STD:	Long Term Exposure Limit (8-hour):	Short Term Exposure Limit (15 minute):
Iron Salts (as Fe)		WEL	-	1 mg/m3
				-
				2 mg/m3

**Engineering measures:** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective threshold limit value.

**Protective equipment**

**Respiratory protection:** Respiratory protection if there is a risk of uncontrolled exposure to vapour.

**Skin and body protection:** Wear overall or apron, PVC or rubber boots.  
If there is danger of splashing, wear: PVC or other impermeable suit.

**Hand protection:** PVC or rubber gloves.

**Eye protection:** Chemical goggles. Face shield if there is a danger of splashing.

**Hygiene measures:** Wash hands after handling compounds and before eating, smoking, using lavatory and at the end of day.

**9 PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state:</b>	Oily liquid		
<b>Colour:</b>	Dark brown	<b>Odour:</b>	Characteristic
<b>Boiling point (°C):</b>	280	<b>Melting point (°C):</b>	-10 approx.
<b>Density:</b>	1450	<b>Solubility:</b>	Completely soluble
<b>pH:</b>	Acidic	<b>Flash point:</b>	Not available
<b>Viscosity:</b>	7.5cP at 25°C		

**10 STABILITY AND REACTIVITY**

**Stability:** The product is stable.

**Conditions to avoid:** Temperatures less than -5°C.

**Materials to avoid:** Hypochlorite. Hydrogen peroxide. Acids. Alkalis. Steel. Copper. Zinc. Silver and silver salts.

**Hazardous decomposition products:** Heating may produce: Chlorine hydrogen chloride.

**11 TOXICOLOGICAL INFORMATION**

**Local effects**

**Skin irritation:** This material is corrosive to the skin.

**Eye irritation:** The material is corrosive to the eye.

**Acute toxicity:** Oral LD50 (rat) 900 mg/kg.

**Chronic toxicity:** 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.

**12 ECOLOGICAL INFORMATION**

Ecotoxicity: The product is rated slightly toxic to aquatic species.


**13 DISPOSAL CONSIDERATIONS**

**Product & contaminated packaging:** Dispose of in accordance with all applicable local and national regulations.

**Waste classification:** Not applicable.

**14 TRANSPORT INFORMATION**

International transport regulation

UN:	<i>UN number</i>	2582
UN:	<b>Proper shipping name</b>	Ferric Chloride Solution
UN:	<b>Class</b>	8
UN:	<b>Packing group</b>	III
UN:	<b>Label</b>	
ADR/RID:	<b>Class</b>	8
ADR/RID:	<b>Item number</b>	5c
ADR/RID:	<b>Hazard identification number</b>	80
	<b>TREMCARD TEC(R)</b>	80G20
IMDG:	<b>Packing group</b>	III
IMDG:	<b>Class</b>	8
IATA:	<b>Packing group</b>	III
IATA:	<b>Class</b>	8

**15 REGULATORY INFORMATION**

Symbols:



**C, Corrosive**

<b>RISK PHRASES:</b>	34	Causes burns.
	37	Irritating to respiratory system.
<b>SAFETY PHRASES:</b>	2	Keep out of reach of children.
	26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

<b>Contains:</b>	Iron (III) Chloride
<b>Product Use:</b>	Classification and labelling have been performed according to EU directives 67/548/EEC, 88/379/EEC, including amendments and the intended use. _ Consumer applications.

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**16 OTHER INFORMATION**

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**Source of Information:** Supplier/Manufactures Health and Safety Data Sheet Ref: 8270 031106 Version 2.02.

**Exclusion of Liability**

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**Health and Safety**

*This Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on the handling precautions and emergency procedures. This must be consulted fully before handling, storage and use.*