

**Section 1. Identification****1.1 Product Identifier** 1121

Product Name	FERRIC CHLORIDE SOLUTION 60% w/v (40% w/w)
CAS Number	Mixture
REACH Registration No	A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

**1.2 Relevant identified uses of the substance or mixture & uses advised against**

Uses of Material	Chemical for industrial and laboratory use. Not suitable for domestic use.
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**1.3 Supplier** Vickers Laboratories Ltd

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Phone	44 0113 2362811
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**1.4 Emergency Telephone** (08:00-16:30) +44(0) 113 2362811  
(24hr) 112  
(Have this document to hand)**Section 2. Hazards Identification****2.1 Classification of the substance or mixture****Classification according to regulation 1272/2008/EC**

Corrosive to metals, category 1	H290: May be corrosive to metals.
Acute toxicity, category 4 (oral)	H302: Harmful if swallowed.
Skin corrosion/irritation, category 2	H315: Causes skin irritation.
Serious eye damage/irritation, category 1	H318: Causes serious eye damage.

**2.2 Label elements****Labelling according to regulation 1272/2008/EC**

Signal word Danger

Hazard Pictograms



Hazard Statements May be corrosive to metals. Harmful if swallowed. Causes skin irritation. Causes serious eye damage.

Precautionary Statements Wear protective gloves / protective clothing / eye protection. Wash thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

## Section 3. Composition

### 3.2 Mixtures

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Iron salts, as Fe				>60%	Met. Corr. 1, Acute Tox. 4 (O), Skin Irrit. 2, Eye Dam. 1

## Section 4. First Aid

### 4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION.
Skin	Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. If discomfort persists OBTAIN MEDICAL ATTENTION.
Inhalation	Remove from exposure.
Ingestion	Wash out the patients mouth thoroughly with water. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

### 4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

### 4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

## Section 5. Fire Fighting

### 5.1 Extinguishing media

Extinguishing Media	Consider what other flammable materials are present and act accordingly.
Unsuitable Media	Nothing specified.

### 5.2 Special hazards arising from the substance or mixture

Hazards	Presents no specific fire danger.
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### 5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes.
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## Section 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection	Use approved personal protective equipment.
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### 6.2 Environmental precautions

Environmental	Keep non-neutralised material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
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### 6.3 Methods and material for containment and cleaning up

Major Spillage	Contain and absorb on inert material. Transfer absorbent to container for removal. Wash area down with copious amounts of water.
Minor Spillage	Wash area down with copious amounts of water.

## 6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

## Section 7. Storage & Handling

### 7.1 Precautions for safe handling

No specific precautions.

### 7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage .

### 7.3 Specific end use(s)

See section 1.2.

## Section 8. Workplace Exposure & Personal Protection

### 8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits	
			Long Term (8hr TWA)	Short Term 15min period
Iron salts, as Fe		>60%	-	-

Exposure data source(s) No occupational exposure data currently available.

### 8.2 Exposure controls

Respiratory Protection	Presents no significant inhalation health hazard.
Hand Protection	Use nitrile gloves or PVC gauntlets.
Eye Protection	Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards	No special precautions required.

## Section 9. Physical & Chemical Properties

### 9.1 Information on basic physical and chemical properties

Appearance	Red-brown liquid.
Odour	Odourless.
pH	2 @ 20°C
Boiling Point	Not available
Melting Point	Not applicable
Flash Point	Not applicable
Upper Flammable Limit	Not applicable
Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	No.
Oxidising Properties	No.
Vapour Pressure	Not applicable
Relative Density	1.4500
Water Solubility	Completely soluble in water.

### 9.2 Other information

No data available.

## Section 10. Stability & Reactivity

**10.1** Reactivity No data available.

**10.2** Chemical Stability Stable under normal conditions

<b>10.3</b>	Possibility of hazardous reactions	No data available.
<b>10.4</b>	Conditions to Avoid	No specific conditions.
<b>10.5</b>	Incompatible Materials	Strong oxidising agents. Corrosive to metals, category 1.
<b>10.6</b>	Hazardous Decomposition Products	Will decompose to emit toxic and irritant fumes of hydrogen chloride.

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

Eyes	Causes serious eye damage.
Skin	The liquid will be irritating to the skin.
LD50 Skin	Not available
Ingestion	Harmful if swallowed. Ingestion will cause gastrointestinal irritation.
LD50 Oral	1872mg/kg Rat
Inhalation	Presents no significant health hazard by inhalation.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.

## Section 12. Ecological

<b>12.1</b>	Toxicity	No data available but known to be toxic to fish.
	LC50 Algal	Not available
	LC50 Crustacea	Not available
	LC50 Fish	Not available
<b>12.2</b>	Persistence and degradability	No data available.
<b>12.3</b>	Bioaccumulative potential	No data available.
<b>12.4</b>	Mobility in soil	No data available.
<b>12.5</b>	Results of PBT & vPvB assessment	Assessment not required.
<b>12.6</b>	Other adverse effects	None known at present.

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

Disposal Methods	Dissolve in water and adjust pH to 7, then precipitate out as the sulphide. Filter off the insoluble material and dispose of at a licensed land-fill site. Destroy excess sulphide with sodium hypochlorite, neutralise the solution and wash to drain with copious amounts of water.
Contaminated Packaging	Wash out containers with water.

## Section 14. Transport Information

<b>14.1 UN Number</b>	2582
<b>14.2 Proper Shipping Name</b>	Ferric chloride solution
<b>14.3 Transport classes</b>	
UN classification	8
Subsidiary hazard(s)	None
Transport category	3
ADR Hazard ID	80
Tunnel Restriction Code	E
<b>14.4 Packing Group</b>	III
<b>14.5 Environment hazards</b>	See section 12.
<b>14.6 Special precautions for user</b>	No special precautions required.
<b>14.7 Transport in bulk</b>	Not transported in bulk.



## Section 15. Regulatory Information

### 15.1 Safety, health and environment regulations specific for substance/mixture.

#### Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Corrosive to metals, category 1; Acute toxicity, category 4 (oral); Skin corrosion/irritation, category 2; Serious eye damage/irritation, category 1

Signal word Danger

Hazard Pictograms



Hazard Statements H290, H302, H315, H318  
May be corrosive to metals. Harmful if swallowed. Causes skin irritation. Causes serious eye damage.

Precautionary Statements P280, P264, P305+P351+P338, P301+P312, P330  
Wear protective gloves / protective clothing / eye protection. Wash thoroughly after handling. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

### 15.2 Chemical safety assessment

Assessment not required.

## Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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