




### Section 1. Identification of the Substance/Mixture and the Company

<b>1.1 Product Identifier</b>	Product Name: Ferric Chloride (2%) Differentiating Solution Product Number: FCB	
<b>1.2 Intended use</b>	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
<b>1.3 Details of the supplier of the safety data sheet</b>	<b>Manufacturer</b>	ScyTek Laboratories, Inc.
	<b>Address</b>	205 South 600 West Logan, Utah 84321 U.S.A.
	<b>Phone Number</b>	800-729-8350
	<b>Fax Number</b>	435-755-0015
	<b>e-mail</b>	msds@scytek.com
	<b>Website</b>	scytek.com

### Section 2. Hazards Identification

<b>2.1 GHS Classification</b>	Skin irritation (Category 2) – H315 Serious eye damage (Category 1) – H318	
<b>Classification: Directive 1999/45/EC</b>	 <p><b>C R22, R41; S24/25, S28, S37/39</b>                  EN: Corrosive                  DA: Ætsende                  DE: Ätzend                  EL: Διαβρωτικό                  ES: Corrosivo                  FR: Corrosif                  IT: Corrosivo                  NL: Bijtend                  PT: Corrosivo                  SV: Frätande</p> For full text of R- & S- phrases: see Section 15.	


<b>2.2 Label Elements</b>	Pictogram(s): 		
	Signal word:	Danger	
	Hazard statement(s):	H315 – Causes skin irritation H320 – Causes serious eye damage	
	Precautionary statement(s):	P302+ P352 – IF ON SKIN: Wash with plenty of soap and water P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Get immediate medical advice/attention.	
<b>NFPA Scale: 0-4</b>			
<b>HMIS (U.S.A.) Scale: 0-4</b>	HEALTH	2	
	FLAMMABILITY	0	
	PHYSICAL HAZARD	0	
	PERSONAL PROTECTION	C	
<b>2.3 Other Hazards</b>	<b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT. <b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.		

### Section 3. Composition and Information on Ingredients

#### 3.2 Chemical Description: Mixture

\*May contain additional non-hazardous proprietary ingredients.

\*May contain additional active ingredients at concentrations <0.1%/w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Ferric Chloride	10025-77-1	231-729-4	 Warning. 1. H290 May be corrosive to metals. Warning. 4 H302 Harmful if swallowed. 2 H315 Causes skin irritation. Danger. 1 H318 Causes serious eye damage.	≤ 2

### Section 4. First Aid Measures

#### 4.1 Description of first aid measures

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with copious amounts of water and get immediate medical attention.

**Skin Contact:** Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

**Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

**4.2 Most important symptoms and effects, both acute and delayed**

See section 2.2 and 11.

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

### Section 5. Fire Fighting Measures

<b>5.1 Extinguishing Media</b>	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
<b>5.2 Special hazards arising from the substance or mixture</b>	No unusual fire or explosion hazards expected.
<b>5.3 Advice for firefighters</b>	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

### Section 6. Accidental Release Measures

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

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

**6.2 Environmental precautions**

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

**6.3 Methods and materials for containment and cleaning up**

Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.

### Section 7. Handling and Storage

**7.1 Precautions for safe handling.**

Avoid contact with skin and eyes.

Wash thoroughly after handling.

Avoid breathing vapor.

**7.2 Conditions for safe storage, including any incompatibilities.**

Store in well ventilated area.

Keep container tightly closed.

Store at 15-30°C.

**7.3 Specific end use(s).**

See section 1.2

### Section 8. Exposure Controls / Personal Protection

<b>8.1 Control parameters</b>	<b>Exposure Limits:</b> Ferric chloride: TWA 1 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup>
<b>8.2 Exposure controls</b>	<b>Personal Protective Equipment (PPE):</b> <b>Eye/Face protection.</b> Safety glasses or goggles are required. <b>Skin protection.</b> Protective clothing is required.

	<p><b>Hand protection.</b> Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove.</p> <p><b>Respiratory protection.</b> Avoid breathing vapor.</p> <p><b>Environmental exposure controls.</b> Avoid releasing large quantities into the environment. No additional information.</p>
<b>Engineering Controls</b>	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

### Section 9. Physical and Chemical Properties

<b>Physical State</b>	Liquid
<b>Color</b>	Orange
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Unknown
<b>pH</b>	Unknown
<b>Melting Point/ Freezing Point</b>	Unknown
<b>Initial Boiling Point</b>	Unknown
<b>Flash Point</b>	Unknown
<b>Evaporation Rate</b>	Unknown
<b>Flammability (solid, gas)</b>	Unknown
<b>Upper/Lower Flammability Limits</b>	Unknown
<b>Vapor Pressure</b>	Unknown
<b>Vapor Density</b>	Unknown
<b>Relative Density</b>	Unknown
<b>Solubility(ies)</b>	Water
<b>Partition Coefficient: n-octanol/water</b>	Unknown
<b>Auto-Ignition Temperature</b>	Unknown
<b>Decomposition Temperature</b>	Unknown
<b>Viscosity</b>	Unknown
<b>Explosive Properties</b>	Not explosive.
<b>Oxidizing Properties</b>	Unknown

### Section 10. Stability and Reactivity

<b>10.1 Reactivity</b>	No relevant data available.
<b>10.2 Chemical Stability</b>	Stable under normal temperatures and pressures.
<b>10.3 Possibility of Hazardous Reactions</b>	No hazardous reactions known.
<b>10.4 Conditions to Avoid</b>	Fire, static electricity, direct sunlight.
<b>10.5 Incompatible Materials</b>	Metals, allyl chloride, sodium, potassium.
<b>10.6 Hazardous Decomposition Materials</b>	Hydrogen Chloride Fumes.

### Section 11. Toxicological Information

<b>11.1 Information on Toxicological Effects.</b>	<p><b>Acute Toxicity.</b> No relevant data available</p> <p><b>Skin Corrosion/Irritation.</b> Irritating to skin and mucous membranes.</p> <p><b>Serious Eye Damage/Irritation.</b> Causes serious damage to eye.</p> <p><b>Respiratory or skin sensitization.</b> No relevant data available.</p> <p><b>Germ Cell Mutagenicity.</b> No relevant data available.</p>
<b>Carcinogenicity.</b>	<p><b>International Agency for Research on Cancer (IARC).</b> None of the components are listed.</p> <p><b>National Toxicology Program (NTP).</b> None of the components are listed.</p>

### Section 12. Ecological Information

<b>12.1 Toxicity</b>	<p><b>Fish:</b> No relevant studies identified.</p> <p><b>Crustacea:</b> No relevant studies identified.</p> <p><b>Algae/Aquatic Plants:</b> No relevant studies identified.</p> <p><b>Other Organisms:</b> No relevant studies identified.</p>
<b>12.2 Persistence and Degradability.</b>	No relevant studies identified.
<b>12.3 Bioaccumulative Potential.</b>	No relevant studies identified.
<b>12.4 Mobility in Soil.</b>	Miscible in water. May spread in water systems. This component is non-volatile.
<b>Additional Remarks</b>	None.
<b>12.5 Results of PBT and vPvB Assessment.</b>	<p><b>PBT:</b> This mixture does not contain any substances that are assessed to be a PBT.</p> <p><b>vPvB:</b> This mixture does not contain any substances that are assessed to be a vPvB.</p>

### Section 13. Disposal Considerations

<b>13.1 Waste Disposal Methods.</b>	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
<b>Product/Packaging Disposal.</b>	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
<b>Other Disposal Recommendations.</b>	No relevant data available.

### Section 14. Transport Information

<b>14.1 UN Number DOT, IATA,IMDG, ADR</b>	<p>DOT: Not dangerous goods.</p> <p>ADR/RID: Not dangerous goods.</p> <p>IMDG: Not dangerous goods.</p> <p>IATA: Not dangerous goods.</p>
<b>14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR</b>	<p>ADR/RID: Not dangerous goods.</p> <p>IMDG: Not dangerous goods.</p> <p>IATA: Not dangerous goods.</p> <p>DOT: Not dangerous goods.</p>

<b>14.3 Transport Hazard Class(es)</b>	<b>DOT:</b> Not dangerous goods. <b>IATA:</b> Not dangerous goods. <b>IMDG:</b> Not dangerous goods. <b>ADR/RID:</b> Not dangerous goods.
<b>14.4 Packing Group DOT, IATA,IMDG, ADR</b>	<b>ADR/RID:</b> Not dangerous goods. <b>IMDG:</b> Not dangerous goods. <b>IATA:</b> Not dangerous goods. <b>DOT:</b> Not dangerous goods.
<b>14.5 Environmental Hazards</b>	<b>Marine Pollutant:</b> No
<b>14.6 Special Precautions for User</b>	Not applicable.

### Section 15. Regulatory Information

<b>15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.</b>	
<b>Extremely Hazardous Substances; Section 355</b>	None of the components in this mixture are listed.
<b>Toxic Substances Control Act; TSCA</b>	All of the components in this mixture are listed.
<b>California Proposition 65</b>	None of the components in this mixture are listed.
<b>Right To Know Components</b>	None of the components in this mixture are listed.
<b>15.2 Chemical Safety Assessment</b>	No Chemical Safety Assessment has been carried out for this substance/mixture by ScyTek Laboratories, Inc.
<b>R phrases</b>	<b>R22</b> EN: Harmful if swallowed. DA: Farlig ved indtagelse. DE: Gesundheitsschädlich beim Verschlucken. EL: Επιβλαβές σε περίπτωση καταπόσεως. ES: Nocivo por ingestión. FR: Nocif en cas d'ingestion. IT: Nocivo per ingestione. NL: Schadelijk bij opname door de mond. PT: Nocivo por ingestão. SV: Farligt vid förtäring.  <b>R41</b> EN: Risk of serious damage to eyes. DA: Risiko for alvorlig øjenskaade. DE: Gefahr ernster Augenschäden. EL: Κίνδυνος σοβαρών οφθαλμικών βλαβών. ES: Riesgo de lesiones oculares graves. FR: Risque de lésions oculaires graves. IT: Rischio di gravi lesioni oculari. NL: Gevaar voor ernstig oogletsel. PT: Risco de lesões oculares graves. SV: Risk för allvarliga ögonskador.
<b>S phrases</b>	<b>S24/25</b> EN: Avoid contact with skin and eyes. DA: Undgå kontakt med huden og øjnene. DE: Berührung mit den Augen und der Haut vermeiden. EL: Αποφεύγετε επαφή με το δέρμα και με τα μάτια. ES: Evítese el contacto con los ojos y la piel. FR: Éviter le contact avec la peau et les yeux.

	<p>IT: Evitare il contatto con gli occhi e con la pelle.                  NL: Aanraking met de ogen en de huid vermijden.                  PT: Evitar o contacto com a pele e os olhos.                  SV: Undvik kontakt med huden och ögonen.</p> <p><b>S28</b>                  EN: After contact with skin, wash immediately with plenty of water.                  DA: Kommer stof på huden vaskes straks med store mængder ... (angives af fabrikanten).                  DE: Bei Berührung mit der Haut sofort abwaschen mit viel ... (vom Hersteller anzugeben).                  EL: Σε περίπτωση επαφής με το δέρμα, πλυθείτε αμέσως με άφθονο ... (το είδος του υγρού καθορίζεται από τον παραγωγό).                  ES: En caso de contacto con la piel, lávese inmediata y abundantemente con ... (productos a especificar por el fabricante).                  FR: Après contact avec la peau, se laver immédiatement et abondamment avec ... (produits appropriés à indiquer par le fabricant).                  IT: In caso di contatto con la pelle lavarsi immediatamente ed abbondantemente con ... (prodotti idonei da indicarsi da parte del fabbricante).                  NL: Na aanraking met de huid onmiddellijk wassen met veel ... (aan te geven door de fabrikant).                  PT: Após contacto com a pele, lavar imediata e abundantemente com ... (produtos adequados a indicar pelo produtor).                  SV: Vid kontakt med huden tvätta genast med mycket ... (anges av tillverkaren).</p> <p><b>S37/39</b>                  EN: Wear suitable gloves and eye/face protection.                  DA: Brug egnede beskyttelseshandsker og -briller/ansigtsskærm under arbejdet.                  DE: Bei der Arbeit geeignete Schutzhandschuhe und Schutzbrille/Gesichtsschutz tragen.                  EL: Φοράτε κατάλληλα γάντια και συσκευή προστασίας ματιών/προσώπου.                  ES: Úsense guantes adecuados y protección para los ojos/la cara.                  FR: Porter des gants appropriés et un appareil de protection des yeux/du visage.                  IT: Usare guanti adatti e proteggersi gli occhi/la faccia.                  NL: Draag geschikte handschoenen en een beschermingsmiddel voor de ogen/het gezicht.                  PT: Usar luvas e equipamento protector para os olhos /face adequados.                  SV: Använd lämpliga skyddshandskar samt skyddsglasögon eller ansiktsskydd.</p>
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### Section 16. Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. ScyTek Laboratories shall not be held liable for any damage resulting from handling or from contact with the above product.