

## BBC Biochemical

## MATERIAL SAFETY DATA SHEET

**Section 1. Chemical Product and Company Information**

Common Name: Iron (III) Chloride Hexahydrate	Code: RW0355
Supplier: BBC Biochemical	MSDS#: RW0355
Synonym: Ferric chloride hexahydrate; ferric trichloride hexahydrate.	Validation Date: 3-6-09
Trade Name: Not Available	Print Date: 3-6-09
Material Uses: Not Available	Responsible Name: Dr. B
Manufacturer: BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477

**Section 2. Composition and Information on Ingredients**

Name	CAS#	% by Weight	Exposure Limits
1) Iron (III) Chloride, hexahydrate	10025-77-1	100	Not available.

**Section 3. Hazards Identification**

Physical State and Appearance	Yellow to brown solid.
Emergency Overview	Not available.
Routes of Entry	May be harmful by inhalation, ingestion or skin absorption.
Potential Acute Health Effects	
Eyes	Slightly hazardous in case of eye contact (irritant).
Skin	Slightly hazardous in case of skin contact.
Inhalation	Slightly hazardous in case of inhalation
Ingestion	Slightly hazardous in case of ingestion
Potential Chronic Health Effects	Not Available.
Medical Conditions Aggravated by Overexposure/Signs/Symptoms	Repeated or prolonged exposure is not known to aggravate medical condition. Loss of appetite, inability to concentrate. Headache, irritation of eyes, nose, throat.

**Section 4. First Aid Measures**

Eye Contact	Immediately flush eyes with copious amounts of water for at least 15 minutes.
Skin Contact	Immediately wash skin with copious amounts of water.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen.
Ingestion	Wash out mouth with water provided person is conscious. Loosen clothing such as a collar, tie, belt or waistband. Do not induce vomiting. Provided person is conscious, have victim drink several glasses of water or milk.
Notes to Physician	Not available.

**Section 5. Fire Fighting Measures**

Flammability of the Product	Not available.
Auto-ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	These products are carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ...), sulfur oxides (SO <sub>2</sub> , SO <sub>3</sub> ...). Some metallic oxides.
Fire Hazards in Presence Of Various Substances	Not available.

<b>Explosion Hazards in Presence of Various Substances</b>	Vapor may travel considerable distance to source of ignition and flash back.
<b>Fire Fighting Media and Instructions</b>	Carbon dioxide, dry chemical powder or appropriate foam. Water spray.
<b>Protective Clothing (Fire)</b>	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
<b>Special Remarks on Fire Hazards</b>	Emits toxic fumes under fire conditions.
<b>Special Remarks on Explosion Hazards</b>	Vapor may travel considerable distance to source of ignition and flash back.

### Section 6. Accidental Release Measures

<b>Small Spill and Leak</b>	Evacuate area. Shut off all sources of ignition. Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
<b>Large Spill and Leak</b>	Evacuate area. Shut off all sources of ignition. Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

### Section 7, Handling and Storage

<b>Handling</b>	Avoid prolonged exposure or repeated exposure. See section 8.
<b>Storage</b>	Keep away from heat, sparks, and open flame. Store in a cool dry place.

### Section 8. Exposure Controls / Personal Protection

<b>Engineering Controls</b>	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
<b>Personal Protection</b>	
<b>Eyes</b>	Safety goggles required.
<b>Body</b>	Protective clothing advised. Lab coat.
<b>Respiratory</b>	Wear appropriate NIOSH/MSHA-approved respirator.
<b>Hands</b>	Chemical resistant gloves.
<b>Feet</b>	Rubber boots advised.
<b>Personal Protection in Case of a Large Spill</b>	Same as above.
<b>Product Name</b>	<b>Exposure Limits</b>
1) Iron (III) Chloride hexahydrate	ACGIH- 1mg/m3 TWA NIOSH- 1mg/m3 TWA OSHA- final PELs- none listed
2) Ferric Chloride, anhydrous	ACGIH- 1mg/m3 TWA NIOSH- 1mg/m3 TWA OSHA- final PELs- none listed
<b>Consult Local authorities before acceptable exposure limits.</b>	

### Section 9. Physical and Chemical Properties

<b>Physical State and Appearance</b>	Yellow to brown solid	<b>Odor:</b>	None reported
<b>Molecular Weight</b>	270.2864	<b>Taste:</b>	Not available.
<b>Molecular Formula</b>	FeCl <sub>3</sub> .6H <sub>2</sub> O	<b>Color:</b>	Yellow to brown
<b>pH (1%/Water)</b>	Not applicable.		
<b>Boiling/Condensation Point</b>	Not applicable.		
<b>Melting/Freezing Point</b>	Not applicable.		
<b>Critical Temperature</b>	Not applicable.		
<b>Specific Gravity</b>	Not applicable.		
<b>Vapor Pressure</b>	Not applicable.		
<b>Vapor Density</b>	Not applicable.		
<b>Volatility</b>	Not applicable.		
<b>Odor Threshold</b>	Not applicable.		
<b>Evaporation Rate</b>	Not applicable.		
<b>VOC</b>	Not available.		
<b>Viscosity</b>	Not available.		
<b>Ionicity (in water)</b>	Not available.		
<b>Dispersion Properties</b>	Not available.		
<b>Solubility</b>	80% in water at 20C		

Physical Chemical Comments Not available.

### Section 10. Stability and Reactivity

Stability and Reactivity Stable.  
 Conditions of Instability Not available.  
 Incompatibility with Various Substances Incompatible with strong oxidizing agents.  
 Hazardous Decomposition Products Not available.  
 Hazardous Polymerization Not available.

### Section 11. Toxicological Information

Toxicity to Animals CAS# 7705-08-0: LJ9100000  
 LD50/LC50:  
 Not available.  
 CAS# 7705-08-0:  
 Oral, mouse: LD50 = 200 mg/kg;  
 Oral, rat: LD50 = 316 mg/kg;  
 Chronic Effects on Humans May be harmful by inhalation, ingestion, or skin absorption.  
 Other Toxic Effects on Humans To the best of our knowledge, the chemical, physical, and toxicological properties have not be thoroughly investigated.  
 Special Remarks on Toxicity to Animals Not available.  
 Special Remarks on Chronic Effects on Humans Not available.  
 Special Remarks on Other Toxic Effects on Humans Not available.

### Section 12. Ecological Information

Ecotoxicity Not available.  
 BODS and COD Not available.  
 Biodegradable/OEDC Mobility Not available.  
 Toxicity of the Products of Biodegradation The product itself and its products of degradation are not toxic.  
 Special Remarks on The Products of Biodegradation Not available.

### Section 13. Disposal Considerations

Waste Information Not available.  
 Waste Stream Not available.  
 Consult your local or regional authorities.

### Section 14. Transport Information

DOT Classification Ferric Chloride, Anhydrous, Hazard 8, UN1773, Packing Group III  
 Marine Pollutant Not available.  
 Hazardous Substances Reportable Quantity Not available.  
 Special Provisions for Transport Not applicable.  
 TDG Classification Ferric Chloride, Anhydrous, Hazard 8, UN1773, Packing Group III  
 ADR/RID Classification Not available  
 IMO/IMDG Classification Not available  
 ICAO/IATA Classification See IATA Regulations, Ferric Chloride, Anhydrous, Hazard 8, UN1773, Packing Group III

### Section 15. Other Information

Label requirements

<b>Hazardous Material Information System (U.S.A.)</b>	<b>Health</b>	3	<b>National Fire Protection Association (U.S.A.)</b>	
	<b>Fire Hazard</b>	0		
	<b>Reactivity</b>	0		
	<b>Personal Protection</b>	a		
<b>References</b>				
<b>Other Special Considerations</b>				
<b>Notice to Reader</b>				
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