

# Ferric Sulfate (12% Fe<sup>2+</sup>)



## Safety Data Sheet

### SECTION 1: Identification

#### 1.1 Product Identifier

##### Product Name

- Ferric Sulfate 12%

##### Synonyms

- FeSO<sub>4</sub>•7H<sub>2</sub>O, Iron (III) Sulfate

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

##### Relevant identified use(s)

- Water and wastewater treatment

##### Use(s) advised against

- There are no uses advised against.

#### 1.3 Details of the supplier of the Safety Data Sheet

Supplier		<ul style="list-style-type: none"><li>• Skyhawk Chemicals, Inc 701 N. Post Oak Rd., Ste 540 Houston, TX 77024</li></ul>
	Telephone (General)	713-957-2200 / 800-535-2847
Email Fax		<ul style="list-style-type: none"><li>• order@skyhawkchemicals.com 713-957-0345</li></ul>

#### 1.4 Emergency Telephone number

TRANSPORTATION EMERGENCIES – CHEMTREC USA:

(800) 424-9300  
ACCT# CCN721839

### SECTION 2: Hazard(s) Identification

#### 2.1 Hazard Classification of the substance or mixture

#### UN GHS

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According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

- H290: May be corrosive to metals
- H302: Harmful if swallowed
- H319: Causes serious eye irritation
- H315: Causes skin irritation

## 2.2 Label Elements

### UN GHS

**WARNING**



<b>Hazard Statements:</b>	•	H302 -	Harmful if swallowed
		H319 -	Causes serious eye irritation
		H315 -	Causes skin irritation
		H290 -	May be corrosive to metals
<b>Precautionary Statements:</b>			
<b>Prevention</b>	•	P202 -	Do not handle until all safety precautions have been read and understood.
		P262 -	Do not get in eyes, on skin, or on clothing.
		P264 -	Wash thoroughly after handling
		P280 -	Wear protective gloves/protective clothing/eye protection/face protection
		P234 -	Keep only in original container
		P270 -	Do not eat, drink or smoke when using this product
		P261 -	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
<b>Response</b>	•	P321 -	Specific treatment, see supplemental first aid information.
		P391 -	Collect spillage, absorb spillage to prevent material damage
		P301 + 312 -	IF SWALLOWED: Call a poison center or doctor/physician if you feel unwell. Rinse mouth.
		P313 -	Get medical attention
		P302 + P352	IF ON SKIN: Wash with plenty of soap and water
		P362	Take off contaminated clothing and wash before reuse
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P378 -	In case of fire, use extinguishing media appropriate for the surrounding fire. This material will not burn easily. See Stability and Reactivity
		P331 -	DO NOT induce vomiting.
			<i>Never give anything by mouth to an unconscious person. Administer 250 – 300 ml water to dilute material in the stomach.</i>

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		P332+P313-	If skin irritation occurs: Get medical advice/attention
<b>Storage/Disposal</b>	•	P501 -	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations
	•	P402+404	Store in a dry place. Store in a closed container.
	•	P406	Store in corrosive resistant container with a resistant inner liner
	•	P501 -	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations

## 2.3 Other Hazards

Irritating to eyes, skin, respiratory and digestive tracts. Sulfur oxides and/or toxic and flammable hydrogen sulfide may be formed under fire conditions. Keep unnecessary people away. Cover spills with some inert absorbent. Sweep up into containers for disposal.

## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances

Chemical Name	Identifiers	%	Classifications According to Regulation / Directive
<b>Ferric Sulfate</b>	<b>Iron (II) Sulfate</b>	<b>60 ± 5 (43 ± 5 as anhydrous)</b>	<b>CAS NO. 7720-78-7</b>
<b>Sulfuric Acid</b>		<b>&lt;0.05</b>	<b>CAS NO. 7664-93-9</b>

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

This product contains WHMIS regulated (hazardous) components.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

<b>Inhalation</b>	<ul style="list-style-type: none"> <li>Remove to fresh air.</li> <li>If breathing has stopped, trained personnel should administer artificial respiration.</li> <li>If the heart has stopped, trained personnel should administer CPR.</li> <li>If breathing is difficult, give oxygen.</li> <li>Obtain medical advice if there are persistent symptoms.</li> </ul>
<b>Skin</b>	<ul style="list-style-type: none"> <li>In case of skin contact, wash affected areas of skin with soap and water. If skin irritation persists, call a physician.</li> </ul>
<b>Eye</b>	<ul style="list-style-type: none"> <li>Rinse immediately with plenty of water for at least 15 minutes. Obtain medical advice if there are persistent symptoms.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>Never give anything by mouth to an unconscious person. Obtain medical attention. Do not induce vomiting. Administer 250-300 ml water to dilute material in the stomach.</li> </ul>

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

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|--|---|
|  | <ul style="list-style-type: none"><li>• See Section 11 for Toxicological Information.</li></ul> |
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## 4.3 Indication of any immediate medical attention and special treatment needed

- |                    |   |
|--------------------|---|
| Notes to Physician | <ul style="list-style-type: none"><li>• See Section 11 for Toxicological Information.</li></ul> |
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## SECTION 5: FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable Extinguishing Media	<ul style="list-style-type: none"><li>• Use extinguishing media appropriate for the surrounding fire. This material will not burn easily.</li></ul>
Unsuitable Extinguishing Media	<ul style="list-style-type: none"><li>• None known</li></ul>

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

Special Hazards	<ul style="list-style-type: none"><li>• Sulfur oxides and/or toxic and flammable hydrogen sulfide may be formed under fire conditions. Keep unnecessary people away.</li></ul>
Note:	<ul style="list-style-type: none"><li>• Also see "Section 10 – Stability and Reactivity"</li></ul>

### 5.3 Advice for Firefighters

Protective Equipment	<ul style="list-style-type: none"><li>• Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection). Firefighters and others exposed, wear self-contained breathing apparatus.</li></ul>
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## FLAMMABLE PROPERTIES

### FLASH POINT

Not Established

### AUTO IGNITION TEMPERATURE

Not Established

### FLAMMABLE LIMITS IN AIR (% BY VOLUME)

Not Established

### EXTINGUISHING MEDIA

Water, water mist, foam, carbon dioxide, dry powder.

### HAZARDOUS COMBUSTION PRODUCTS

Thermal decomposition may produce: oxides and sulfur

### FIRE FIGHTING INSTRUCTIONS

Use water spray to cool fire exposed surfaces and to protect personnel. Firefighters should wear full protective clothing and positive pressure self-contained breathing apparatus.

## SECTION 6: Accidental Release Measures

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

Personal precautions	<ul style="list-style-type: none"><li>• Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. Refer to Section 8 (Exposure Controls/Personal Protection for appropriate personal protective equipment.</li></ul>
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## 6.2 Environmental precautions

	<ul style="list-style-type: none"> <li>Use appropriate containment to avoid environmental contamination. Prevent water contaminated with this product from entering drains, sewers or streams, growing crops/keeping animal areas, and site of native flora and fauna.</li> </ul>
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## 6.3 Methods and material for containment and cleaning up

<b>General Procedures</b>	<ul style="list-style-type: none"> <li>Cover spills with some inert absorbent. Sweep up into containers for disposal.</li> <li><b>Do not</b> place spill materials back in their original container. Containerize and label all spill materials properly.</li> <li>Create a dike or trench to contain all liquid material.</li> </ul>
<b>Land Spill</b>	<ul style="list-style-type: none"> <li>Prevent additional discharge of material, if possible, to do without hazard. For small spills implement cleanup procedures; for large spills, implement cleanup procedures and, if in public area, advise authorities.</li> </ul>
<b>Water Spill</b>	<ul style="list-style-type: none"> <li>Prevent adding discharge of material, if possible to do so without hazard.</li> </ul>

## 6.4 Reference to other sections

	<ul style="list-style-type: none"> <li>Section 8 (Exposure Controls/Personal Protection)</li> </ul>
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## RELEASE NOTES

Notify the National Response Center (800/424/8802) of uncontained releases to the environment in excess of the Reportable Quantity (RQ). See Section 15, Regulatory Information. Recycle or dispose of recovered material in accordance with all federal, state, and local, regulations.

**For all transportation accidents, call CHEMTREC at (800) 424-9300.**

## SECTION 7: Handling and Storage

### 7.1 Precautions for safe handling

<b>Handling</b>	<ul style="list-style-type: none"> <li>Do not get in eyes. Handle with caution. Wash thoroughly after handling. Review the label, this SDS and any other applicable information before use. Keep separated from incompatible substances. Use appropriate Personal Protective Equipment per Section 8. Handle only with equipment, materials, and supplies specified by their manufacturer as being compatible and appropriate for use with this product.</li> </ul>
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### 7.2 Conditions for safe storage, including any incompatibilities

<b>Storage</b>	P 402 -	<ul style="list-style-type: none"> <li>Store in a dry place.</li> </ul>
	P406 -	<ul style="list-style-type: none"> <li>Store only in corrosive resistant/ dry rubber-lined, plastic, FRP or stainless steel</li> </ul>
	P411 + 235 -	<ul style="list-style-type: none"> <li>Keep storage temperatures between 10° and 30°C.</li> </ul>
	P420 -	<ul style="list-style-type: none"> <li>Store away from other materials. (Such as incompatible materials or alkalis)</li> </ul>
Storage Period		<ul style="list-style-type: none"> <li>12 months</li> </ul>

### 7.3 Specific end use(s)

	<ul style="list-style-type: none"> <li>Refer to Section 1.2 – Relevant identified uses</li> </ul>
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## SECTION 8: EXPOSURE CONTROLS PERSONAL PROTECTION

### 8.1 Control parameters

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Components	CAS-No.	Value	Form of Exposure	Control Parameters	Update	Basis
Sulfuric Acid	7664-93-9	TWA	Thoracic fraction	0.2 mg/m <sup>3</sup>	2007-01-01	ACGIH
		TWA		1 mg/m <sup>3</sup>	2005-09-01	NIOSH REL
Diiron tris (sulfate)	10028-22-5			1 mg/m <sup>3</sup>		
				1 mg/m <sup>3</sup>		
		TWA		1 mg/m <sup>3</sup>		

## 8.2 Exposure controls

<b>Engineering Measures/Controls</b>	<ul style="list-style-type: none"> <li>A ventilation system of local/general exhaust is recommended to keep employee exposure below the Airborne Exposure Limits. Ensure that eyewash station and safety showers are proximal to the workstation location.</li> </ul>
<b>Respiratory</b>	<ul style="list-style-type: none"> <li>Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.</li> </ul>
<b>Eye/Face</b>	<ul style="list-style-type: none"> <li>Provide eye wash fountain and safety shower in close proximity to points of potential exposure. Wear eye/face protection such as chemical splash proof goggles or face shield. Prevent eye and skin contact.</li> </ul>
<b>Skin/Body</b>	<ul style="list-style-type: none"> <li>Prevent contamination of skin or clothing when removing protective equipment. Wear impermeable gloves and suitable protective clothing.</li> </ul>
<b>Environmental Exposure Controls</b>	<ul style="list-style-type: none"> <li>Use appropriate containment to avoid environmental contamination. Prevent water contaminated with this product from entering drains, sewers or streams, growing crops/keeping animal areas, and site of native flora and fauna.</li> </ul>

## Key to abbreviations

## SECTION 9: Physical and Chemical Properties

### 9.1 Information on Physical and Chemical Properties

<b>Material Description</b>			
Physical Form	Liquid	Appearance/Description	Red to brown liquid
Color	Red-Brown	Odor	Acidic
Odor Threshold	No data available		
<b>General Properties</b>			
Boiling Point	105-110°C (220-230°F)	Melting Point	<-18°C (220-230°F)
Decomposition Temperature	Not applicable	pH	<2.0
Specific Gravity/Relative Density	1.50 -1.59 @ 25°C	Density	12.501– 13.249 lbs/gal
Water Solubility	Soluble	Viscosity	No data available
Explosive Properties	No data available	Oxidizing Properties	
<b>Volatility</b>			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	Similar to water	Volatiles (Wt.)	~50% by wt
Volatiles (Vol.)	Not applicable		
<b>Flammability</b>			
Flash Point	Not Applicable	Vapor Density	Not applicable
LEL	Not Applicable	Autoignition	No data available

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Flammability (solid, gas)	No data available		
<b>Environmental</b>			
Octanol/Water Partition Coefficient	Not Applicable		

## 9.2 Other Information

	<ul style="list-style-type: none"><li>No additional physical and chemical parameters noted.</li></ul>
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## SECTION 10: Stability and Reactivity

### 10.1 Reactivity

	<ul style="list-style-type: none"><li>No dangerous reaction known under conditions of normal use.</li></ul>
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### 10.2 Chemical Stability

	<ul style="list-style-type: none"><li>Stable</li></ul>
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### 10.3 Possibility of hazardous reactions

	<ul style="list-style-type: none"><li>Under normal conditions of storage and use, hazardous polymerization will not occur. Stable under recommended storage conditions.</li></ul>
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### 10.4 Conditions to avoid

	<ul style="list-style-type: none"><li>Avoid freezing or storing in high temperatures.</li></ul>
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### 10.5 Incompatible materials

	<ul style="list-style-type: none"><li>Carbon Steel</li><li>Brasses</li><li>Carbon</li><li>Alloys</li><li>Nylon</li><li>Aluminum</li></ul>
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### 10.6 Hazardous decomposition products

	<ul style="list-style-type: none"><li>Sulphur</li><li>Oxides</li><li>Thermal Decomposition:<ul style="list-style-type: none"><li>&gt;300°C</li><li>&gt;572°F</li></ul></li></ul>
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## SECTION 11: Toxicological Information

### 11.1 Information on toxicological effects

For additional toxicological information, refer to Section 3. Toxicological information on the regulated components of this product is as follows:

Ferric sulfate has oral (rat) LD50 value of 237 mg/kg. Direct contact may cause severe eye and moderate skin irritation. Inhalation overexposure may cause irritation of the respiratory tract.

The acute oral (rat) LD50 and acute 1-hour inhalation (rat) for sulfuric acid are 2,140 mg/kg and 347 ppm (0.348

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mg/L/4hr), respectively. Sulfuric acid is corrosive to the skin and eyes. Concentrated sulfuric acid can also be corrosive to the nose, mucous membranes, respiratory tract and gastrointestinal tract. Inhalation of the vapors or mist can cause pulmonary edema, emphysema or permanent changes in pulmonary function. Chronic exposure has been reported to be associated with dermatitis, chronic bronchitis, gastritis, erosion of dental enamel, conjunctivitis, increased frequency of respiratory tract infections and cancer of the larynx, lungs and upper respiratory tract.

## Potential Health Effects

### Inhalation

<b>Acute (Immediate)</b>	<ul style="list-style-type: none"> <li>Irritation will occur.</li> </ul>
<b>Chronic (Delayed)</b>	<ul style="list-style-type: none"> <li>Repeated or prolonged overexposure may cause irritation to respiratory tract.</li> </ul>

### Skin

<b>Acute (Immediate)</b>	<ul style="list-style-type: none"> <li>May be harmful in contact with skin. Causes skin irritation as it is corrosive acidic substance.</li> <li>LD50/Rat/&gt; /881 mg/kg/OECD Test Guideline 402 Remarks: Calculated as Fe</li> <li>LD50/Rat/&gt; /3,154 mg/kg/OECD Test Guideline 402 Remarks: Read-across (Analogy), CAS-No., 7758-94-3</li> <li>Rabbit Result: No skin irritation /OECD Test Guideline 404 Conclusion: Moistened solid is expected to be irritant as a consequence of low pH.</li> </ul>
<b>Chronic (Delayed)</b>	<ul style="list-style-type: none"> <li>Repeated or prolonged exposure to corrosive materials will cause dermatitis.</li> </ul>

### Eye

<b>Acute (Immediate)</b>	<ul style="list-style-type: none"> <li>May cause severe eye irritation.</li> <li>Rabbit Result: No skin irritation /OECD Test Guideline 404 Conclusion: Moistened solid is expected to be irritant as a consequence of low pH.</li> </ul>
<b>Chronic (Delayed)</b>	<ul style="list-style-type: none"> <li>Repeated or overexposure to corrosive materials or fumes may cause conjunctivitis.</li> </ul>

### Ingestion

<b>Acute (Immediate)</b>	<ul style="list-style-type: none"> <li>Harmful if swallowed</li> </ul>
<b>Chronic (Delayed)</b>	<ul style="list-style-type: none"> <li>No data available</li> </ul>

## SECTION 12: Ecological Information

### 12.1 Toxicity

For additional toxicological information, refer to Section 3. Toxicological information on the regulated components of this product is as follows:

Ferrous sulfate has oral (rat) LD50 value of 237 mg/kg. Direct contact may cause severe eye and moderate skin irritation. Inhalation overexposure may cause irritation of the respiratory tract.

The acute oral (rat) LD50 and acute 1-hour inhalation (rat) for sulfuric acid are 2,140 mg/kg and 347 ppm (0.348 mg/L/4hr), respectively. Sulfuric acid is corrosive to the skin and eyes. Concentrated sulfuric acid can also be corrosive to the nose, mucous membranes, respiratory tract and gastrointestinal tract. Inhalation of the vapors or mist can cause pulmonary edema, emphysema or permanent changes in pulmonary function. Chronic exposure has been reported to be associated with dermatitis, chronic bronchitis, gastritis, erosion of dental enamel, conjunctivitis, increased frequency of respiratory tract infections and cancer of the larynx, lungs and upper respiratory tract.

Acute Inhalation Toxicity	<b>Iron (II) Sulphate:</b>
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	<ul style="list-style-type: none"> <li>• LC50 Inhalation overexposure may cause irritation of the respiratory tract.</li> </ul> <p>Sulfuric Acid:</p> <ul style="list-style-type: none"> <li>• LC50/Rat/4 h/0.375 mg/l</li> <li>• Remarks: aerosol</li> <li>• Conclusion: Although the LC50 values from the various inhalation toxicity studies performed with sulfuric acid following inhalation are entirely due to local irritation of the respiratory tract: there is no evidence for the systemic toxicity of sulfuric acid in any study, as effects are limited to the site of contact. Classification for acute inhalation toxicity is not considered to be appropriate.</li> </ul>
Acute Oral Toxicity	<p>Conclusion: Product is acutely harmful to health if swallowed</p> <p><b>Iron (II) Sulfate:</b></p> <ul style="list-style-type: none"> <li>• OECD Test Guideline 423 Remarks: Calculated as Fe</li> <li>• /Rat/220 mg/kg/LD50</li> </ul> <p><b>Sulfuric Acid:</b></p> <ul style="list-style-type: none"> <li>• /Rat/2, 140 mg/kg/LD50</li> </ul>
Acute dermal toxicity	<p><b>Iron (II) Sulfate:</b></p> <ul style="list-style-type: none"> <li>• LD50/Rat/</li> <li>• /2,369 mg/kg/OECD Test Guideline 402</li> <li>• Remarks: Read-across (Analogy), CAS-No., 7758-94-3</li> </ul> <p><b>Iron (II) Sulfate:</b></p> <ul style="list-style-type: none"> <li>• LD50/Rat/</li> <li>• 881 mg/kg/OECD Test Guideline 402</li> <li>• Remarks: Calculated as Fe</li> </ul>
Skin Corrosion/Irritation	<ul style="list-style-type: none"> <li>• Irritating to skin</li> </ul> <p><b>Iron (II) Sulfate:</b> Rabbit</p> <ul style="list-style-type: none"> <li>• Result: Irritating</li> <li>• OECD Test Guideline 404/4 h/500 mg</li> </ul> <p><b>Sulfuric Acid:</b></p> <ul style="list-style-type: none"> <li>• Result: Corrosive</li> </ul> <p>Conclusion: Causes severe burns</p>
Serious eye damage/ eye irritation	Irritating to eyes
Serious eye damage/ eye irritation	<p><b>Iron (II) Sulfate:</b> Rabbit</p> <ul style="list-style-type: none"> <li>• Result: slight irritation</li> <li>• OECD Test Guideline 405</li> <li>• Remarks: 25%, Aqueous solution</li> </ul> <p><b>Iron (II) Sulfate:</b></p> <ul style="list-style-type: none"> <li>• Rabbit</li> <li>• Result: Corrosive</li> <li>• OECD Test Guideline 405</li> <li>• Remarks: Read-across (Analogy), CAS-No, 7758-94-3</li> </ul>

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	<p><b>Sulfuric Acid:</b></p> <ul style="list-style-type: none"> <li>Result: Corrosive</li> </ul> <p>Conclusion: Risk of serious damage to eyes.</p>
Respiratory or skin sensitization	
Skin sensitization	<p><b>Iron (II) Sulfate:</b></p> <p>Conclusion: According to experience sensitization is not expected.</p> <p><b>Sulfuric Acid:</b></p> <p>Conclusion: Not sensitizing</p>
Genotoxicity in vitro	<p><b>Iron (II) Sulfate:</b></p> <ul style="list-style-type: none"> <li>AMES test/ Mutagenicity (Salmonella typhimurium – reverse mutation assay) / with and without</li> <li>Result: negative</li> <li>OECD</li> <li>Test Guideline 471</li> <li>Remarks: Read-across (Analogy), CAS-No., 7758-94-3</li> </ul>
Carcinogenicity	<p><b>Iron (II) Sulfate:</b></p> <p>Not believed to be a carcinogen</p>
<b>Reproductive toxicity</b>	
<b>Toxicity for reproduction</b>	<p><b>Iron (II) Sulfate:</b></p> <ul style="list-style-type: none"> <li>Reproductive effects/&gt;1,000 mg/kg/&gt;1,000 mg/kg/OECD</li> <li>Test Guideline 422</li> <li>Remarks: bw/day</li> </ul> <p><b>Sulfuric Acid:</b></p> <ul style="list-style-type: none"> <li>Developmental toxicity test/Rabbit/0.020 mg/l</li> </ul> <p>Conclusion: Did not show teratogenic effects in animal experiments.</p>

<b>Ecotoxicity effects</b>	
	<p><b>Aquatic toxicity</b></p> <p>LC50/24 h/Gambusia affinis (Mosquito fish): 37.2 mg/l          LC50/96 h/Gambusia affinis (Mosquito fish): 37.2 mg/l          /7 d/Green algae (Selenastrum capricornutum): 10 mg/l</p>
	<p><b>Diiron tris(sulphate):</b></p> <p>LC50/96 h/Oncorhynchus mykiss (rainbow trout): &gt; 100 mg/l          NOEC/90 d/Oncorhynchus kisutch (Coho salmon): &gt; 1 mg/l          EC50/48 h/Daphnia (water flea): 82.8 mg/l NOEC/21 d/Daphnia magna (Water flea): &gt; 1 mg/l</p>

The compound is considered to have no long term effects in aquatic systems due to the rapid formation of insoluble hydroxides.

Toxicity to other organisms

Persistence and degradability

**Biological degradability:**

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	The methods for determining the biological degradability are not applicable to inorganic substances.
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Other adverse effects: May lower the pH of water and thus be harmful to aquatic organisms

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste Treatment Methods

<b>Product waste</b>	<ul style="list-style-type: none"> <li>Discarded product as sold, would not be considered a RCRA Hazardous Waste</li> <li>Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.</li> </ul>
<b>Packaging waste</b>	<ul style="list-style-type: none"> <li>Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner or properly disposed.</li> <li>Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.</li> </ul>

## SECTION 14: TRANSPORT INFORMATION

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental Hazards
DOT	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, n.o.s. (contains ferrous sulfate)	8	III	Marine Pollutant
TDG	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, n.o.s. (contains ferrous sulfate)	8	III	Marine Pollutant
IMO/IMDG	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, n.o.s. (contains ferrous sulfate)	8	III	Marine Pollutant
IATA/ICAO	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, n.o.s. (contains ferrous sulfate)	8	III	NDA

### 14.6 Special precautions for user

	<ul style="list-style-type: none"> <li>None specified</li> </ul>
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### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

	<ul style="list-style-type: none"> <li>Data lacking.</li> </ul>
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THIS MATERIAL IS NOT A HAZARDOUS AS DEFINED BY 49 CFR 172.01 BY THE U.S DEPARTMENT OF TRANSPORTATION.

Label as required by EPA and by OSHA Hazard Communication Standard, and any applicable state and local regulations.

**EMERGENCY RESPONSE GUIDE NUMBER: 171**

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## SECTION 15: REGULATORY INFORMATION

### 15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

#### CERCLA Hazardous substance (Reportable Quantities)

#### CERCLA Hazardous substance (Reportable Quantities)

Diiron tris (sulphate) (10028-22-5) 1,000 lb Sulfuric acid (7664-93-9) 1,000 lb

#### SARA Title III Section 311 Categories

Immediate (Acute) health Effects: Yes;

Delayed (Chronic) Health Effects: No;

Fire Hazard: No;

Sudden Release of Pressure Hazard: No;

Reactivity Hazard: No

#### SARA 313 Specific Toxic Chemical Listings

Sulfuric Acid (CAS NO. 7664-93-9)

OSHA a. United States Occupational Safety and Health Administration substances, 29 CFR 1910.1000 Sub Part Z

<b>Product Hazard classification under Section 31 of SARA</b>	<ul style="list-style-type: none"><li>Acute</li></ul>
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**United States (USA):** This product is manufactured in compliance with all provisions of the Toxic Substances Control Act, 15 U.S.C. 2601 et. seq.

### 15.2 Chemical Safety Assessment

- |  |   |
|--|---|
|  | <ul style="list-style-type: none"><li>No Chemical Safety Assessment has been carried out.</li></ul> |
|--|---|

### 15.3 Other Information

- |  |  |
|--|--|
|  | <ul style="list-style-type: none"><li></li></ul> |
|--|--|

## U S FEDERAL REGULATIONS

### REPORTABLE QUANTITY (RQ)

1000 lbs

### CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

# SAFETY DATA SHEET – Ferric Sulfate 12%

If this product is accidentally spilled, it is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). We recommend you contact local authorities to determine if there may be other local reporting requirements.

## TSCA (TOXIC SUBSTANCES CONTROL ACT)

All components of this product are listed on the TSCA Inventory or are exempt from TSCA Inventory requirements.

## SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III

Components identified with an asterisk (\*) in Section 2 are subject to the reporting requirements of Section 313 of Title III of the 1986 Superfund Amendments and Reauthorization Act (SARA) and 40 CFR Part 372.

## California Proposition 65

**This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.**

## SARA HAZARD CATEGORIES (40 CFR 370.2)

Fire Hazard	No
Reactivity Hazard	No
Release of Pressure	No
Acute Health Hazard	No
Chronic Health Hazard	No

## INTERNATIONAL REGULATIONS

### CANADA

#### CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

This product, or its components, are listed on or are exempt from the Canadian Domestic Substance List (DSL).

## SECTION 16: OTHER INFORMATION

<b>Relevant Phrases (code &amp; full text)</b>	<ul style="list-style-type: none"><li>H312 Harmful in contact with skin</li><li>R21/22 Harmful in contact with skin and if swallowed.</li></ul>
<b>Last Revision Date</b>	<ul style="list-style-type: none"><li>05/15/2015</li></ul>
<b>Preparation Date</b>	<ul style="list-style-type: none"><li>05/14/2015</li></ul>
<b>Disclaimer/Statement of Liability</b>	<ul style="list-style-type: none"><li>The technical data given herein is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. No guarantee is being given as to the end use performance. The product is sold on the basis that buyers test the product for their specific purposes. This information related to the material designated and may not be valid for such material used in combination with any other materials or in any process.</li></ul>