



## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

Product Name Ferrous Ammonium Sulfate

### Other means of identification

Synonyms None

### Recommended use of the chemical and restrictions on use

Recommended Use Fertilizer

Uses advised against No information available

### Details of the supplier of the safety data sheet

Supplier Name QC, LLC  
Supplier Address 5566 Nash Road  
Cape Girardeau, MO 63701  
Supplier Phone Number 800-666-4766 Fax: 573-335-2308  
Contact Phone 573-335-6700  
Supplier Email [info@qccorporation.com](mailto:info@qccorporation.com)

**Emergency telephone number** CHEMTREC 800-424-9300

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazardous Communication Standard (29 CFR 1910.1200).

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

### GHS Label elements, including precautionary statements

#### Emergency Overview



Signal word  
Hazard statement(s)

Warning

Harmful if swallowed  
Causes skin irritation  
Causes serious eye irritation

Appearance: Gray

Physical state: Granular Solid

Odor: Slight Fertilizer

**Precautionary Statements - Prevention**

Wash face, hands, and any exposed skin thoroughly after handling.  
Do not eat, drink, or smoke when using this product.  
Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary Statements - Response**

Specific treatment (see supplemental first aid instructions on this label).

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash with plenty of soap and water. If skin irritation occurs, get medical advice/attention. Take off contaminated clothing and wash before reuse.

**In case of eye contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

**If swallowed:** Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

**Precautionary Statements – Storage:** None

**Precautionary Statements – Disposal:** Dispose of contents/container to an approved waste disposal plant.

**Hazards not otherwise classified (HNOC):** Not applicable.

**Unknown Toxicity:** 0% of the mixture consists of ingredient(s) of unknown toxicity.

**Other information:** Harmful to aquatic life with long lasting effects.

**Interactions with Other Chemicals:** No information available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No	Weight - %	Trade Secret
Ammonium sulfate	7783-20-2	30 – 60	*
Sulfuric acid, iron(2+) salt (1:1), monohydrate	17375-41-6	30 – 60	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES**

**Description of first aid measures**

**General Advice:** Show this safety data sheet to the doctor in attendance.

**If inhaled:** Remove to fresh air. Get medical attention immediately if symptoms occur.

**In case of skin contact:** Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

**In case of eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.

**If swallowed:** Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. DO NOT induce vomiting. Call a physician.

**Self-protection of the first aider:** Avoid contact with skin, eyes, or clothing. Use personal protective equipment as required. Wear personal protective clothing (See Section 8).

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

**Most important known symptoms and effects:** Burning sensation.

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

**Notes to Physician:** Treat symptomatically.

## 5. FIREFIGHTING MEASURES

**Extinguishing media**

**Suitable extinguishing media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media:** CAUTION: Use of water spray when fighting fire may be inefficient.

**Special hazards arising from the chemical:** No information available.

**Uniform Fire Code:** Irritant: Solid

**Hazardous Combustion Products:** Carbon oxides

**Explosion Data:** Sensitivity to Mechanical Impact: No  
Sensitivity to Static Discharge: No

**Protective equipment and precautions for firefighters:** Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

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

**Personal precautions:** Avoid contact with skin, eyes, or clothing. Ensure adequate ventilation. Use personal protective equipment as required.

**Other information:** Refer to protective measures listed in Sections 7 and 8.

**Environmental precautions:** Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.

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

**Methods for containment:** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:** Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes. Do not ingest. If swallowed, then seek immediate medical assistance.

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

**Storage:** Keep away from heat, sparks, flame, and other sources of ignition (i.e. pilot lights, electric motors, and static electricity). Keep container tightly closed in a cool and well-ventilated place. Keep in properly labeled containers.

**Incompatible Products:** Strong acids. Strong oxidizing agents. Strong bases.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulfuric acid, iron(2+) salt (1:1), monohydrate 17375-41-6	TWA: 1mg/m <sup>3</sup> Fe	(vacated) TWA: 1 mg/m <sup>3</sup> Fe	TWA: 1 mg/m <sup>3</sup> Fe

ACGIH TLV: American Conference of Governmental Industrial Hygienists – Threshold Limit Value  
OSHA PEL: Occupational Safety and Health Administration – Permissible Exposure Limits Immediately Dangerous to Life or Health

**Other exposure guidelines:** Vacated limits revoked by the Court of Appeals decision in AFL-CIO versus OSHA, 965F.2d 962 (11<sup>th</sup> Cir., 1992). See Section 15 for national exposure control parameters.

**Appropriate engineering controls:**

Engineering Measures: Showers, Eyewash Stations, Ventilation Systems

**Individual protection measures, such as personal protective equipment:**

**Eye/face protection:** If splashes are likely to occur, wear safety glasses with side shields (or goggles). None required for consumer use.

**Skin and body protection:** Wear protective gloves and protective clothing. Long sleeved clothing. Impervious gloves.

**Respiratory protection:** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink, or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

Physical State	Solid	
Appearance	Granular	Odor Slight Fertilizer
Color	Gray	Odor Threshold No data available

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks Method</u></b>
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pH	No data available	None known
Melting/freezing point	No data available	None known
Flash Point	No data available	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	No data available	None known
Water solubility	Soluble in water	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Auto-ignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No data available	
Oxidizing properties	No data available	

### **Other Information**

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	

## 10. STABILITY AND REACTIVITY

**Reactivity:** No data available

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** None under normal processing.

**Hazardous Polymerization:** Hazardous polymerization does not occur.

**Conditions to avoid:** None known based on information supplied.

**Incompatible materials:** Strong oxidizing agents. Strong acids. Strong bases.

**Hazardous decomposition products:** Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product information

**Inhalation:** Specific test data for the substance or mixture is not available. Causes skin irritation (based on components). May cause irritation of respiratory tract.

**Eye contact:** Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. Irritating to eyes. May cause redness, itching, and pain. Causes serious eye irritation.

**Skin contact:** Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. Irritating to skin. Prolonged contact may cause redness and irritation.

**Ingestion:** Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Harmful if swallowed (based on components).

#### Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium sulfate 7783-20-2	=2000 mg/kg (Rat)	-	-
Sulfuric acid, iron(2+) salt (1:1), monohydrate 17375-41-6	=237 mg/kg (Rat)	-	-

### Information on toxicological effects

#### Symptoms

Erythema (skin redness). May cause redness and tearing of the eyes.

### Delayed and immediate effects as well as chronic effects from short & long-term exposure

Sensitization	No information available
Mutagenic effects	No information available
Carcinogenicity	Contains no ingredient listed as carcinogen
Reproductive toxicity	No information available
STOT-single exposure	No information available
STOT-repeated exposure	No information available
Chronic toxicity	No known effect based on information supplied. May cause adverse liver effects
Target organ affects	Respiratory system, Eyes, Skin, Gastrointestinal tract (GI), Liver.
Aspiration hazard	No information available

### Numerical measure of toxicity product information

The following values are calculated based on Chapter 3.1 of the GHS document.

## 12. ECOLOGICAL INFORMATION

**ECOTOXICITY:** Toxic to aquatic organisms. Very toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Ammonium sulfate 7783-20-2		96h LC50: = 250 mg/L (Brachydanio rerio) 96h LC50: = 480 mg/L (Brachydanio rerio) 96h LC50: = 18 mg/L (Cyprinus carpio) 96h LC50: = 420 mg/L (Brachydanio rerio) 96h LC50: 32.2 – 41.19 mg/L (Oncorhynchus mykiss) 96h LC50: 5.2 – 8.2 mg/L (Oncorhynchus mykiss) 96h LC50: > 100 mg/L (Pimephales promelas) 96h LC50: 123 – 128 mg/L (Poecilia reticulata) 96h LC50: = 126 mg/L (Poecilia reticulata) 96h LC50: 460 – 1000 mg/L (Leuciscus idus)		48h LC50: 14 mg/L 24h EC50: = 423 mg/L

**Persistence and Degradability:** No data available

### Bioaccumulation

Chemical Name	Log Pow
Ammonium sulfate 7783-20-2	-5.1

**Other adverse effects:** No data available

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Disposal methods:** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging** Dispose of contents/containers in accordance with local regulations.

## 14. TRANSPORT INFORMATION

<b><u>DOT</u></b>	Proper shipping Name Hazard Class	Not Regulated Non Regulated Not applicable
<b><u>TDG</u></b>		Not Regulated
<b><u>MEX</u></b>		Not Regulated
<b><u>ICAO</u></b>		Not Regulated
<b><u>IATA</u></b>	Proper Shipping Name Hazard Class	Not Regulated Non Regulated Not applicable
<b><u>IMDG/IMO</u></b>	Hazard Class Marine Pollutant	Not Regulated Not applicable Product is a marine pollutant according to the criteria set by IMDG/IMO
<b><u>RID</u></b>		Not Regulated
<b><u>ADR</u></b>		Not Regulated
<b><u>ADN</u></b>		Not Regulated

## 15. REGULATORY INFORMATION

### **International Inventories**

TSCA	Complies
DSL	All components are listed either on the DSL or NDSL

**TSCA** – United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** – Canadian Domestic Substances List/Non-Domestic Substances List

### **US Federal Regulations**

**SARA 313** - Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals that are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS No.	Weight - %	SARA 313-Threshold Values %
Ammonium sulfate	7783-20-2	30 – 60	1.0

### **SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic health hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	No

**CWA (Clean Water Act)** - This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).



Chemical Name	CWA-Reportable Quantities	CWA – Toxic Pollutants	CWA – Priority Pollutants	CSA – Hazardous Substances
Sulfuric acid, iron(2+) salt (1:1) monohydrate 17375-41-6	1000 lb.			X

**CERCLA** – This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sulfuric acid, iron(2+) salt (1:1), monohydrate 17375-41-6	1000 lb.		RQ 1000 lb. final RQ RQ 454 kg final RQ

### **US State Regulations**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

#### **US State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Ammonium sulfate 7783-20-2		X	X	X	
Sulfuric acid, iron(2+) salt (1:1), monohydrate 17375-41-6	X	X	X		

### **International Regulations**

#### **Mexico**

National occupation exposure limits

Component	Carcinogen Status	Exposure Limits
Sulfuric acid, iron(2+) salt (1:1), monohydrate 17375-41-6		Mexico: TWA 1 mg/m <sup>3</sup> Mexico: STEL 2 mg/m <sup>3</sup>

*Mexico – Occupational Exposure Limits - Carcinogens*

## 16. OTHER INFORMATION

**NFPA Rating** Health Hazards: 2 Flammability: 0 Instability: 0 Physical & Chemical Hazards

**HMIS Rating** Health Hazards: 2 Flammability: 0 Physical Hazard 0 Personal Protection: X

#### **Further information**

This SDS summarizes to the best of our knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since QC, LLC cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material. The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in these documents is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. QC LLC and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.qccorporation.com](http://www.qccorporation.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.