

MSDS

FERROUS AMMONIUM SULFATE SOLUTIONS

## Material Safety Data Sheet

### Section 1: Chemical Product and Company Identification

<b>Catalog Number:</b> 3141, 3142, 3142.01, 3143, 3144, 3145, 3146, 3148, 3150, 3151, 3151.5, 3152, 3155, F-158, F-159, F-161, F-225, F-250, F038700, R3140800, R3141500, R3147000, SF038400, SF038500, SF038504, SF038600, SF038700	
<b>Product Identity:</b> FERROUS AMMONIUM SULFATE SOLUTIONS	
<b>Manufacturer's Name:</b> RICCA CHEMICAL COMPANY LLC	<b>Emergency Contact(24 hr) -- CHEMTREC®</b> Domestic: 800-424-9300 International: 703-527-3887
<b>CAGE Code:</b> 0V553	
<b>Address:</b> 448 West Fork Dr Arlington, TX 76012	<b>Telephone Number For Information:</b> 817-461-5601
<b>Date Prepared:</b> 10/9/00	<b>Revision: 7</b> Last Revised: 06/12/2007 Date Printed: 06/15/2007 4:22:25 pm

### Section 2. Composition/Information on Ingredients

Component	CAS Registry #	Concentration	ACGIH TLV	OSHA PEL
Sulfuric Acid	7664-93-9	0 - 3	Not Available 1 mg/m3	Not Available 1 mg/m3
Water, Deionized	7732-18-5	Balance	Not Available Not Available	Not Available Not Available
Ferrous Ammonium Sulfate Hexahydrate	7783-85-9	0.1 - 20	Not Available 1 mg/m3	Not Available Not Available

### Section 3: Hazard Identification

**Emergency Overview:** Does not present any significant health hazards. Mildly corrosive. Irritating to the eyes and skin. Wash areas of contact with water. If ingested, dilute with water. Call a physician if necessary.

**Target Organs:** eyes, skin, respiratory system, teeth, liver, mucous membranes.

**Eye Contact:** May cause irritation, redness, pain, and tearing.

**Inhalation:** Not likely to be hazardous by inhalation.

**Skin Contact:** May cause irritation, redness, and pain.

**Ingestion:** May cause throat irritation, vomiting and diarrhea.

**Chronic Effects/Carcinogenicity:** None

**IARC - No.**

**NTP - No.**

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OSHA - No.

**Reproductive Information:** Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Sulfuric Acid.

**Teratology (Birth Defect) Information:** Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Sulfuric Acid. Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Ferrous Ammonium Sulfate Hexahydrate.

### Section 4: First Aid Measures - In all cases, seek qualified evaluation.

**Eye Contact:** Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

**Inhalation:** Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**Skin Contact:** Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops.

**Ingestion:** Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

### Section 5: Fire Fighting Measures

**Flash Point:** Not Available.

**Method Used:** Not Available.

**LFL:** Not Available.

**UFL:** Not Available.

**Extinguishing Media:** Dry chemical, foam, or carbon dioxide. Water is acceptable to use on these solutions due to the weak concentrations of acid involved.

**Fire & Explosion Hazards:** Contact with most metals causes formation of flammable and explosive hydrogen gas. However, the risk is reduced due to the weaker concentration of Sulfuric Acid present.

**Fire Fighting Instructions:** Use normal procedures/instructions.

**Fire Fighting Equipment:** Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

### Section 6: Accidental Release Measures

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse unless there are regulations prohibiting this practice due to the iron content. Always dispose of in accordance with local regulations.

### Section 7: Handling and Storage

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Do not mix with bases. Contact with water will generate heat.

**Safety Storage Code:** General

### Section 8: Exposure Control/Personal Protection

**Engineering Controls:** No specific controls are needed. Normal room ventilation is adequate.

**Respiratory Protection:** Normal room ventilation is adequate.

**Skin Protection:** Chemical resistant gloves.

**Eye Protection:** Safety glasses or goggles.

### Section 9: Physical and Chemical Properties

**Appearance:** clear, light green liquid

**Odor:** Odorless

**Solubility in Water:** Infinite

**Specific Gravity:** Approximately 1 - 1.08

**pH:** Not Available.

**Boiling Point(°C):** Approximately 100

**Melting Point(°C):** below 0

**Vapor Pressure:** Not Applicable.

### Section 10: Stability and Reactivity

**Chemical Stability:** Stable under normal conditions of use and storage.

**Incompatibility:** Organics, chlorates, carbides, fulminates, picrates, alkalines, reducing agents, nitrates, Acetic Acid, oxidizing agents, metals.

**Hazardous Decomposition Products:** When heated to decomposition, Sulfuric Acid can emit highly toxic/poisonous gases and fumes, including toxic oxides of Sulfur.

**Hazardous Polymerization:** Will not occur.

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**Section 11. Toxicological Information**

LD50, Oral, Rat: 2140 mg/kg (Sulfuric Acid), 3250 mg/kg (Ferrous Ammonium Sulfate Hexahydrate), details of toxic effects not reported other than lethal dose value. LC50, Inhalation, Rat: (Sulfuric Acid) 510 mg/m<sup>3</sup>/2H, No toxic effect noted.

**Section 12. Ecological Information**

**Ecotoxicological Information:** No information found.

**Chemical Fate Information:** No information found.

**Section 13. Disposal Considerations**

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse unless there are regulations prohibiting this practice due to the iron content. If not allowed, containerize for proper disposal at an approved waste disposal facility. Always dispose of in accordance with local, state and federal regulations.

**Section 14. Transport Information**

Part Numbers:

This product is not regulated.

**Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)**

**OSHA Status:** These items meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

**TSCA Status:** All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory.

Sara Title III:

**Section 302 Extremely Hazardous Substances:** Not Applicable.

**Section 311/312 Hazardous Categories:** Acute, Chronic, Reactivity: Yes      Fire, Pressure: No

**Section 313 Toxic Chemicals:** Not Applicable.

**California:** None Reported.

**Pennsylvania:** Sulfuric Acid is listed as an Environmental Hazard on the state's Hazardous Substances List. Ferrous Ammonium Sulfate Hexahydrate is listed as an Environmental Hazard on the state's Hazardous Substances List.

**RCRA Status:** Not Applicable.

**CERCLA Reportable Quantity:** Sulfuric Acid - 1,000 pounds. Ferrous Ammonium Sulfate Hexahydrate - 1000 pounds.

**WHMIS:** Not Applicable.

**Section 16. Other Information**



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## NFPA Ratings:

Health: 1

Flammability: 0

Reactivity: 0

Special Notice Key:None

## HMIS Ratings:

Health: 1

Flammability: 0

Reactivity: 0

Protective Equipment:B (Protective Eyewear, Gloves)

Rev 1, 10-09-2001: Reformatted to electronic data format.  
Rev 2, 02-06-2003: (Section 1) added Solutions Plus catalog number F038700.  
Rev 3, 03-08-2006: (Section 1) added Red Bird catalog number F-250.  
Rev 4, 05-05-2006: (Section 1) added catalog number R3141500.  
Rev 5, 11-29-2006: (Section 1) added Red Bird catalog number F-161.  
Rev 6, 03-28-2007: (Section 1) added catalog number R3147000.  
Rev 7, 06-12-2007: (Section 1) added catalog number R3140800.

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.