

## SAFETY DATA SHEET

Creation Date 14-Oct-2009

Revision Date 19-Jan-2018

Revision Number 3

### 1. Identification

**Product Name** Ammonium iron (II) sulfate hexahydrate

**Cat No. :** AC201370000; AC201370010; AC201370050; AC201370250;  
AC201370251; AC201375000

**CAS-No** 7783-85-9  
**Synonyms** Ferrous ammonium sulfate; Mohr's salt

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Not for food, drug, pesticide or biocidal product use

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

##### Company

Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

##### **Emergency Telephone Number**

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

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

|  |            |
|--|------------|
| Skin Corrosion/irritation                        | Category 2 |
| Serious Eye Damage/Eye Irritation                | Category 2 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Respiratory system.              |            |

#### Label Elements

##### **Signal Word**

Warning

##### **Hazard Statements**

Causes skin irritation  
Causes serious eye irritation  
May cause respiratory irritation

**Precautionary Statements****Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area

**Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician if you feel unwell

**Skin**

IF ON SKIN: Wash with plenty of soap and water  
 If skin irritation occurs: Get medical advice/attention  
 Take off contaminated clothing and wash before reuse

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention

**Storage**

Store in a well-ventilated place. Keep container tightly closed  
 Store locked up

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

None identified

### 3. Composition/Information on Ingredients

| Component                     | CAS-No    | Weight % |
|-------------------------------|-----------|----------|
| Ferrous ammonium sulfate.6H2O | 7783-85-9 | >95      |

### 4. First-aid measures

|  |   |
|--|---|
| <b>Eye Contact</b>                         | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| <b>Skin Contact</b>                        | Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.                    |
| <b>Inhalation</b>                          | Move to fresh air. Obtain medical attention. If not breathing, give artificial respiration.                     |
| <b>Ingestion</b>                           | Do not induce vomiting. Obtain medical attention.   |
| <b>Most important symptoms and effects</b> | No information available.   |
| <b>Notes to Physician</b>                  | Treat symptomatically   |

### 5. Fire-fighting measures

|                                       |   |
|---------------------------------------|---|
| <b>Suitable Extinguishing Media</b>   | Substance is nonflammable; use agent most appropriate to extinguish surrounding fire. |
| <b>Unsuitable Extinguishing Media</b> | No information available  |

**Flash Point** Not applicable  
**Method -** No information available

**Autoignition Temperature****Explosion Limits**

**Upper** No data available  
**Lower** No data available  
**Sensitivity to Mechanical Impact** No information available  
**Sensitivity to Static Discharge** No information available

**Specific Hazards Arising from the Chemical**

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

**Hazardous Combustion Products**

Nitrogen oxides (NO<sub>x</sub>) Sulfur oxides Heavy metal oxides

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

|                    |                          |                         |                                |
|--------------------|--------------------------|-------------------------|--------------------------------|
| <b>Health</b><br>2 | <b>Flammability</b><br>0 | <b>Instability</b><br>1 | <b>Physical hazards</b><br>N/A |
|--------------------|--------------------------|-------------------------|--------------------------------|

**6. Accidental release measures****Personal Precautions**

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

**Environmental Precautions**

Avoid release to the environment. Should not be released into the environment. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up**

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

**7. Handling and storage****Handling**

Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

**Storage**

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from light. Store under an inert atmosphere.

**8. Exposure controls / personal protection****Exposure Guidelines**

| Component                                  | ACGIH TLV                | OSHA PEL                           | NIOSH IDLH               | Mexico OEL (TWA)                                      |
|--|--------------------------|------------------------------------|--------------------------|---|
| Ferrous ammonium sulfate.6H <sub>2</sub> O | TWA: 1 mg/m <sup>3</sup> | (Vacated) TWA: 1 mg/m <sup>3</sup> | TWA: 1 mg/m <sup>3</sup> | TWA: 1 mg/m <sup>3</sup><br>STEL: 2 mg/m <sup>3</sup> |

*Legend*

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

**Engineering Measures**

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment**

|                                 |   |
|---------------------------------|---|
| <b>Eye/face Protection</b>      | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. |
| <b>Skin and body protection</b> | Wear appropriate protective gloves and clothing to prevent skin exposure.   |
| <b>Respiratory Protection</b>   | No protective equipment is needed under normal use conditions.  |
| <b>Hygiene Measures</b>         | Handle in accordance with good industrial hygiene and safety practice.  |

## 9. Physical and chemical properties

|   |                          |
|---|--------------------------|
| <b>Physical State</b>                         | Solid                    |
| <b>Appearance</b>                             | Light green              |
| <b>Odor</b>                                   | Odorless                 |
| <b>Odor Threshold</b>                         | No information available |
| <b>pH</b>                                     | 3,5 (5 %)                |
| <b>Melting Point/Range</b>                    | 100 °C / 212 °F          |
| <b>Boiling Point/Range</b>                    | No information available |
| <b>Flash Point</b>                            | Not applicable           |
| <b>Evaporation Rate</b>                       | Not applicable           |
| <b>Flammability (solid,gas)</b>               | No information available |
| <b>Flammability or explosive limits</b>       |                          |
| <b>Upper</b>                                  | No data available        |
| <b>Lower</b>                                  | No data available        |
| <b>Vapor Pressure</b>                         | No information available |
| <b>Vapor Density</b>                          | Not applicable           |
| <b>Specific Gravity</b>                       | No information available |
| <b>Solubility</b>                             | Partly soluble in water  |
| <b>Partition coefficient; n-octanol/water</b> | No data available        |
| <b>Autoignition Temperature</b>               |                          |
| <b>Decomposition Temperature</b>              | 100 °C                   |
| <b>Viscosity</b>                              | Not applicable           |
| <b>Molecular Formula</b>                      | H8 Fe N2 O8 S2 . 6 H2 O  |
| <b>Molecular Weight</b>                       | 392.14                   |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactive Hazard</b>                  | None known, based on information available  |
| <b>Stability</b>                        | Light sensitive. Air sensitive.   |
| <b>Conditions to Avoid</b>              | Incompatible products. Excess heat. Avoid dust formation. Exposure to air. Exposure to light. Temperatures above 100°C. |
| <b>Incompatible Materials</b>           | Strong oxidizing agents, Strong acids, Strong bases   |
| <b>Hazardous Decomposition Products</b> | Nitrogen oxides (NOx), Sulfur oxides, Heavy metal oxides  |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.  |
| <b>Hazardous Reactions</b>              | None under normal processing.   |

## 11. Toxicological information

### Acute Toxicity

#### Product Information

#### Component Information

| Component                     | LD50 Oral                 | LD50 Dermal | LC50 Inhalation |
|-------------------------------|---------------------------|-------------|-----------------|
| Ferrous ammonium sulfate.6H2O | LD50 = 3250 mg/kg ( Rat ) | Not listed  | Not listed      |

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

**Toxicologically Synergistic Products** No information available

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

**Irritation** Irritating to eyes, respiratory system and skin

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component                     | CAS-No    | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|-------------------------------|-----------|------------|------------|------------|------------|------------|
| Ferrous ammonium sulfate.6H2O | 7783-85-9 | Not listed | Not listed | Not listed | Not listed | Not listed |

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** Respiratory system

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects,both acute and delayed** No information available

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

**Ecotoxicity**

Do not empty into drains. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

**Persistence and Degradability** based on information available. May persist

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its water solubility.

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT** Not regulated

**TDG** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

## 15. Regulatory information

**International Inventories**

| Component                     | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|-------------------------------|------|-----|------|--------|--------|-----|-------|------|------|-------|------|
| Ferrous ammonium sulfate.6H2O | -    | -   | -    | -      | -      |     | X     | X    | X    | X     | -    |

**Legend:**

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

**U.S. Federal Regulations**

TSCA 12(b) Not applicable

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration  
Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

| Component                     | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-------------------------------|---------------|------------|--------------|----------|--------------|
| Ferrous ammonium sulfate.6H2O | -             | -          | X            | -        | X            |

**U.S. Department of Transportation**

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations**

Mexico - Grade No information available

**16. Other information**Prepared By Regulatory Affairs  
Thermo Fisher Scientific

Email: EMSDS.RA@thermofisher.com

|                         |   |
|-------------------------|---|
| <b>Creation Date</b>    | 14-Oct-2009   |
| <b>Revision Date</b>    | 19-Jan-2018   |
| <b>Print Date</b>       | 19-Jan-2018   |
| <b>Revision Summary</b> | This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). |

**Disclaimer**

The information provided in this Safety Data Sheet 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. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**