

# MATERIAL SAFETY DATA SHEET

## Chemical Product

Product Name: FERRIC AMMONIUM SULPHATE (Dodecahydrate)

CAS#: 7783-83-7

Synonym: Ammonium Iron (III) Sulfate Dodecahydrate, Ammonium Ferric Sulphate

Chemical Name: Ferric Ammonium Sulphate (Dodecahydrate)

Chemical Formula:  $\text{FeNH}_4(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$

## Composition and Information on Ingredients

Name	S.K.U	% by Weight
FERRIC AMMONIUM SULPHATE (Dodecahydrate)	GCS-8402	100

## Hazards Identification

Potential Acute Health Effects:

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation.

Potential Chronic Health Effects:

Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.

## First Aid Measures

### Eye Contact:

Check for and remove any contact lenses. Do not use an eye ointment. Seek medical attention.

### Skin Contact:

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention.

Wash contaminated clothing before reusing.

### Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial

cream. Seek medical attention.

**Inhalation:**

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation: Not Available.

**Ingestion:**

Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Serious Ingestion:**

## **Fire and Explosion Data**

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not applicable.

Flash Points:

Not applicable.

Flammable Limits:

Not applicable.

Products of

Combustion:

Not available.

**Fire Hazards in Presence of Various Substances:**

Slightly flammable to flammable in presence of open flames and sparks, of heat.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Slightly explosive in presence of heat.

**Fire Fighting Media and Instructions:**

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Toxic oxides of nitrogen or ammonia gas may be formed in fires.

Special Remarks on Explosion Hazards: Containers may explode when heated.

## Accidental Release Measures

### Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

### Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

## Handling and Storage

### Precautions:

Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

### Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).

## Exposure Controls/Personal Protection

### Engineering Controls:

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.

### Personal Protection:

Safety glasses. Synthetic apron. Gloves (impervious). For most conditions, no respiratory protection should be needed. However, if material is heated or sprayed and if atmospheric levels exceed exposure guidelines, use an approved vapor (air purifying) respirator.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### Exposure Limits:

TWA: 1 (mg(Fe)/m) from ACGIH (TLV) [United States] Consult local authorities for acceptable exposure limits.

## Physical and Chemical Properties

Physical state and appearance	: Solid. (Crystalline solid.)
Odor	: Odorless.
Taste	: Not available.
Molecular Weight	: 482.2 g/mole
Color	: Colorless to pale Violet.
pH (1% soln/water)	: Not available.
Boiling Point	: 230°C (446°F)
Melting Point	: 37°C (98.6°F) - 41°C
Critical Temperature	: Not available.
Specific Gravity	: 1.71 (Water = 1)
Vapor Pressure	: Not applicable.
Vapor Density	: Not available.
Volatility	: Not available.
Odor Threshold	
	: Not available. Water/Oil Dist. Coeff.
	: Not available.
Ionicity (in Water)	
	: Not available.
Dispersion Properties	
	: See solubility in water.
Solubility alcohol.	: Easily soluble in cold water. Practically insoluble in

## Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, incompatible materials.

Incompatibility with various substances: Reactive with oxidizing agents, acids, alkalis.

Corrosivity: Non-corrosive in presence of glass.

### Special Remarks on Reactivity:

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

## Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: LD50: Not available. LC50: Not available.

Chronic Effects on Humans: Not available.

### Other Toxic Effects on Humans:

Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

### Special Remarks on Toxicity to Animals:

Lethal Dose/Conc: LD [Rat] - Route: Oral; Dose: >2000 mg/kg

Special Remarks on Chronic Effects on Humans: Not available.

### Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: Contact may cause irritation or rash, particularly with moist skin. Eyes: May cause eye irritation with redness, tearing, and abrasion. Inhalation: Inhalation of high concentrations of dust may cause nasal, throat or lung irritation. Symptoms may include coughing and wheezing. Ingestion: Ingestion can produce gastrointestinal tract irritation with hypermotility, diarrhea. Chronic Potential Health Effects: Eyes: Prolonged eye contact may cause a brownish discoloration of the eyes. Skin: Prolonged skin contact may cause skin irritation.

Toxicological Data on Ingredients: Ferric ammonium sulfate dodecahydrate LD50: Not available. LC50: Not available.

## Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

### Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

### 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.

## Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## Transformation Information

Land transport (ADR-RID)

General information: Not regulated.

Sea transport (IMDG) [English only]

General information: Not regulated.

Air transport (ICAO-IATA) [English only]

General information: Not regulated.

## Other Regulatory Information

Federal and State Regulations: No products were found.

### Other Regulations:

EINECS: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

### Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): This product is not classified according to the EU regulations. Not applicable.

### HMIS (U.S.A.):

Health Hazard: 2

### Fire Hazard: 1

Reactivity: 0

### Personal Protection: E

National Fire Protection Association (U.S.A.):

### Health: 2

Flammability: 1

### Reactivity: 0

Specific hazard:

### Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash

goggles.

### **Additional Information**



References: Not available.

Other Special Considerations: Not available.

## ***Disclaimer:***

\*\*\*\*\*

The information contained herein in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

 **makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly,  will not be responsible for damages resulting from use of or reliance upon this information.**