

## Safety Data Sheet **AMMONIUM FERRIC SULFATE Dodecahydrate**

SDS no. LA5GU2UL • Version 1.0 • Date of issue: 2024-12-17

### SECTION 1: Identification

#### GHS Product identifier

Product name AMMONIUM FERRIC SULFATE Dodecahydrate

#### Other means of identification

Product Product Code

AMMONIUM IRON(III) SULFATE Dodecahydrate AR AA059  
Ferric ammonium sulfate, Iron (III) ammonium sulfate, Ferric alum

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

Medicine, textile dyeing (mordant), analytical chemistry and laboratory reagent.

#### Supplier's details

Name ChemSupply Australia Pty Ltd  
Address 38-50 Bedford Street  
5013 Gillman South Australia  
Australia

Telephone 08 8440 2000  
email [www.chemsupply.com.au](http://www.chemsupply.com.au)

#### Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

### SECTION 2: Hazard identification

#### General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

#### Classification of the substance or mixture

#### GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 2A
- Skin corrosion/irritation, Cat. 2

GHS label elements, including precautionary statements

Pictograms



Signal word

Warning

Hazard statement(s)

H315  
H319

Causes skin irritation  
Causes serious eye irritation

Precautionary statement(s)

P264  
P280  
P302+P352  
P305+P351+P338  
  
P332+P313  
P337+P313  
P362+P364

Wash hands thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF ON SKIN: Wash with plenty of water/soap  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If skin irritation occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.

---

**SECTION 3: Composition/information on ingredients**

Mixtures

Molecular weight: 482.19

Components

Component	CAS no.	Concentration
Iron (III) Ammonium Sulfate Dodecahydrate	7783-83-7	100 % (weight)
CLASSIFICATIONS: Serious eye damage/eye irritation, Cat. 2A; Skin corrosion/irritation, Cat. 2. HAZARDS: H315 - Causes skin irritation; H319 - Causes serious eye irritation.		

---

**SECTION 4: First-aid measures**

Description of necessary first-aid measures

General advice

First Aid Facilities: Maintain eyewash fountain in work area.

If inhaled

If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

In case of skin contact

Rinse with plenty of water. Get medical attention if irritation develops and persists.

In case of eye contact

If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If persistent irritation occurs, obtain medical attention.

## Safety Data Sheet

### AMMONIUM FERRIC SULFATE Dodecahydrate

SDS no. LA5GU2UL • Version 1.0 • Date of issue: 2024-12-17

If swallowed

Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

#### Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

---

## SECTION 5: Fire-fighting measures

#### Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

#### Specific hazards arising from the chemical

Hazards from Combustion Products: May emit toxic fumes of ammonia and oxides of sulfur.  
Material does not burn.

#### Special protective actions for fire-fighters

Wear SCBA and structural firefighter's uniform.

---

## SECTION 6: Accidental release measures

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

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. For personal protection see section 8.

#### Methods and materials for containment and cleaning up

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

---

## SECTION 7: Handling and storage

#### Precautions for safe handling

Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use.  
Keep out of the reach of children.

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

Storage Temperatures: Store between 2 - 8°C.

---

## SECTION 8: Exposure controls/personal protection

#### Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

#### Individual protection measures, such as personal protective equipment (PPE)

##### Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

##### Skin protection

Clean impervious clothing should be worn. Clothing for protection against

## Safety Data Sheet

### AMMONIUM FERRIC SULFATE Dodecahydrate

SDS no. LA5GU2UL • Version 1.0 • Date of issue: 2024-12-17

chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

#### Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection: Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

#### Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

---

## SECTION 9: Physical and chemical properties

### Basic physical and chemical properties

Physical state	Solid
Appearance	Lilac to violet, efflorescent, transparent crystals.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	39-41 °C
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	Loses water @ 230 °C
Oxidizing properties	No data available.
pH	~1.8 (100 g/l, H <sub>2</sub> O, 20 °C)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble (1240 g/L @ 25 °C). Solubility in Organic Solvents: Insoluble in alcohol.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 1.71
Relative vapor density	No data available.
Particle characteristics	No data available.

### Supplemental information regarding physical hazard classes

No data available.

### Further safety characteristics (supplemental)

Other Information: Taste: Acid stypic.

---

## **SECTION 10: Stability and reactivity**

### **Reactivity**

Stable under normal conditions of storage and handling.

### **Chemical stability**

Stable, protect from light.

### **Possibility of hazardous reactions**

Hazardous Polymerization: Will not occur.

### **Conditions to avoid**

Moisture. Light, heat, incompatibles.

### **Incompatible materials**

Strong oxidizing agents, sulfuric acid.

### **Hazardous decomposition products**

Ammonia and oxides of sulfur.

---

## **SECTION 11: Toxicological information**

### **Information on toxicological effects**

#### **Acute toxicity**

Ingestion: May cause acidosis. Large doses may cause irritation to the gastrointestinal tract with symptoms including of nausea, abdominal pain, vomiting, diarrhea and black stool. Pink urine discolouration is a strong indicator of iron poisoning. Lack of appetite, liver damage, renal failure, hypotension, cardiac failure, CNS failure, and may lead to coma and death.

Inhalation: Dust may cause irritation to the respiratory tract (nose, mouth, throat, lungs). Symptoms may include coughing, sore throat, laboured breathing and chest pain.

#### **Skin corrosion/irritation**

May be irritating to skin. May cause redness and pain.

#### **Serious eye damage/irritation**

Irritating to eyes. May cause redness and pain.

#### **Respiratory or skin sensitization**

Not classified based on available information.

#### **Germ cell mutagenicity**

Not classified based on available information.

#### **Carcinogenicity**

Not classified based on available information.

#### **Reproductive toxicity**

Not classified based on available information.

#### **Specific target organ toxicity (STOT) - single exposure**

Not classified based on available information.

**Specific target organ toxicity (STOT) - repeated exposure**

Not classified based on available information.

**Aspiration hazard**

Not classified based on available information.

---

**SECTION 12: Ecological information**

**Toxicity**

Acute Toxicity - Fish: The following applies to dissolved iron compounds in general:

toxicity: 0.9 mg/l min. at pH 6.5 - 7.5;

toxicity: 1 mg/l min. at pH 5.5 - 6.7;

50 mg/l iron upper limit for fish life.

When iron ions flocculate in an alkaline medium, mechanical damage occurs in aquatic organisms.

The following applies to ammonium ions in general:

biological effects: fish: toxic as from 0.3 mg/l;

nourishment for fish: toxic as from 0.3 mg/l.

---

**SECTION 13: Disposal considerations**

**Disposal methods**

**Product disposal**

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

**Other disposal recommendations**

Do not discharge this material into waterways, drains and sewers.

---

**SECTION 14: Transport information**

**ADG (Road and Rail)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

---

**SECTION 15: Regulatory information**

**Safety, health and environmental regulations specific for the product in question**

**Australia SUSMP**

Poison Schedule: NS

---

**SECTION 16: Other information**

**Further information/disclaimer**

## Safety Data Sheet

### AMMONIUM FERRIC SULFATE Dodecahydrate

SDS no. LA5GU2UL • Version 1.0 • Date of issue: 2024-12-17

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

#### Preparation information

All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. ChemSupply Australia Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.

Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), [hcis.safeworkaustralia.gov.au](http://hcis.safeworkaustralia.gov.au)

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)