AMMONIUM SULFATE CAPROLACTAM

SAFETY DATA SHEET

1. IDENTIFICATION

Product identifier	**Wilchem Ammonium Sulfate Caprolactam**
Other means of identification	Ammonium sulfate
Recommended use of the chemical	Fertiliser for agricultural use.
Restrictions on Use	Use only for the intended application.
Details of Australian manufacturer or importer	**Australian manufacturer / importer:** Wilchem Pty Ltd **ABN:** 44 614 126 573 **Address:** 39 Jonal Drive, Cavan, SA 5094 AUSTRALIA **Telephone:** 08 8359 6855 **Email:** admin@wilchem.com.au **Website:** www.wilchem.com.au
Emergency phone number	Poisons Information Centre: **13 11 26**, (Australia, 24 hours)

2. HAZARDS IDENTIFICATION

Not classified as a hazardous chemical in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals, 7th Revised Edition (GHS 7), as adopted under Australian WHS legislation.

Signal word	Not required
Hazard pictograms	None required
Hazard statements	None assigned.
Other hazards which do not result in classification	Dust may cause mechanical irritation of the eyes and upper respiratory tract. Direct eye contact may cause mild transient irritation. These effects do not result in classification as a hazardous chemical.

DANGEROUS GOODS STATEMENT

Not classified as dangerous goods for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road & Rail, Edition 7.9 (ADG Code).

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration
Ammonium sulfate	7783-20-2	>99% w/w

4. FIRST AID MEASURES

Description of necessary first aid measures

Inhalation	Remove to fresh air. Obtain medical advice if ill-effects occur or persist.
Skin contact	Remove contaminated clothing. Wash thoroughly with soap and water. Wash clothing before reuse.
Eye contact	Immediately rinse cautiously with clean water for at least 15 minutes, holding eyelids open. Remove contact lenses if easy to do. Obtain medical advice if irritation persists.
Ingestion	Rinse mouth. Do not induce vomiting. Drink water if conscious. Get medical attention if unwell.

First aid facilities

Provide eyewash and access to running water.

Symptoms and effects caused by exposure, including acute and delayed effects

May cause mild, transient eye irritation. May cause nausea and vomiting if swallowed.

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

5. FIREFIGHTING MEASURES

Extinguishing media

Product is not combustible. Use media appropriate to surrounding fire.

Specific hazards arising from the chemical, including hazardous combustion products

Strong heating may result in decomposition with release of ammonia, sulfur oxides, nitrogen oxides and other irritating or toxic gases.

Special protective equipment and precautions for fire fighters

Evacuate area and contact emergency services. Toxic gases may be present in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combatting fire. Use water fog or spray to cool intact containers and nearby storage areas. Prevent contaminated fire water entering drains and waterways.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Isolate area. Avoid eye/skin contact and dust inhalation. Wear gloves, protective clothing and chemical splash goggles/face shield.

Environmental precautions

Prevent entry to drains, soil and waterways. Notify the appropriate authority if significant contamination occurs.

Methods and materials for containment and clean up

Small spills: Sweep or vacuum up spilled material, avoiding generation of dust, and reuse where practicable. Place contaminated material in a suitable labelled container. If washing is required, use the minimum quantity of water necessary and prevent washings entering stormwater drains or waterways.

Large spills: Recover and recycle where practicable. Avoid generating airborne dust. Place contaminated material in labelled containers for reuse or disposal. Do not wash bulk product to drain. If the affected area is washed, use the minimum quantity of water necessary and contain washings where practicable.

Using a suitable industrial vacuum is preferable to dry sweeping where substantial fine dust is present.

7. HANDLING AND STORAGE

Precautions for safe handling

Before use, read all Safety Information, including Directions for Use on the label. Avoid contact and generation of dust. Do not eat, drink or smoke while handling. Wash thoroughly after use. Do not mix with other agricultural chemicals unless compatibility has been established.

Conditions for safe storage, including any incompatibilities

Store in the closed original container in a cool, dry area. Protect from moisture and direct sunlight. Keep dry; material is hygroscopic and moisture causes caking. Avoid rough handling as degradation results in dusty product. Keep away from strong alkalis, strong oxidising agents and other incompatible materials.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Workplace exposure standards / limits

No substance-specific Australian workplace exposure standard or workplace exposure limit has been assigned to ammonium sulphate.

For dusts of inherently low toxicity for which no specific exposure standard has been assigned, Safe Work Australia recommends exposure be maintained below:

Inhalable dust: 10 mg/m³, 8-hour TWA.

This value should be regarded as a general dust-control guidance value and not as an indication that exposure below this concentration is without risk. Dust generation should be minimised as far as reasonably practicable.

TWA = Time weighted average

Biological monitoring

No specific biological monitoring requirement has been identified for ammonium sulphate.

Engineering controls

Use in well-ventilated areas.

Personal Protective Equipment (PPE)

Eye and face protection	Wear safety glasses with side shields or splash-proof chemical goggles (AS 1336 / 1337).
Skin protection	Recommended glove types include PVC, rubber or nitrile (AS 2161).
Body protection	Clothing should include long sleeves, long trousers, safety boots and gloves.
Respiratory protection	Not required under normal conditions of use. Where dust may be generated and adequate ventilation cannot be maintained, wear a correctly fitted respirator incorporating a suitable particulate filter, for example P2, selected and used in accordance with AS/NZS 1715 and AS/NZS 1716. P2 particulate filtration is intended for dust and spray mist only. If ammonia gas is generated following accidental contact with alkaline materials, evacuate or ventilate the affected area and use respiratory protection specifically suitable for ammonia, selected in accordance with AS/NZS 1715 and AS/NZS 1716.

Thermal hazards None identified.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Colour	White crystals
Odour	None
Melting point	>280°C (decomposes before melting point is reached)
Boiling point	Decomposes before boiling point is reached
Flammability	Nonflammable
pH (10% in water)	5 to 7
Solubility	Soluble in water
Density	1.77g/cm^3
Particle characteristics	Crystalline granules / powder

10. STABILITY AND REACTIVITY

Reactivity

Contact with strong alkaline materials may release ammonia gas.

Chemical stability

Stable under recommended conditions of storage and handling.

Possibility of hazardous reactions

Hazardous reactions are not expected under normal conditions of use. Contact with strong alkalis may result in release of ammonia gas.

Conditions to avoid

Keep away from moisture and out of direct sunlight.

Incompatible materials

Strong alkalis, strong oxidising agents, hypochlorites and other materials capable of reacting with ammonium salts. Contact with strong alkalis may release ammonia gas.

Hazardous decomposition products

Ammonia, sulfur oxides, nitrogen oxides and other irritating or toxic gases may be produced if strongly heated or in a fire situation.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation:	Dust may cause upper respiratory tract irritation.
Skin contact:	Incidental skin contact is not likely to cause irritation.
Ingestion:	May cause nausea, vomiting and gastrointestinal irritation.
Eye contact:	May cause transient discomfort.
Chronic effects:	Prolonged or repeated skin contact may cause irritation.

Toxicological endpoint information

Acute toxicity	Not classified based on available information. Ingestion may cause nausea, vomiting and gastrointestinal discomfort. Ammonium sulfate: Oral LD50 (rat): approximately 4,250 mg/kg Dermal LD50 (rat): >2,000 mg/kg
Skin corrosion / irritation	Not classified. Repeated or prolonged contact may cause mild irritation.
Serious eye damage / irritation	Not classified. Direct contact may cause transient discomfort or mild irritation.
Respiratory sensitisation	Not classified based on available information.
Skin sensitisation	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. Dust may cause temporary respiratory tract irritation.
Specific Target Organ Toxicity (STOT) – repeated exposure	Not classified based on available information.
Aspiration hazard	Not classified based on available information.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No ecotoxicity data available for the product. The product is not classified as hazardous to the aquatic environment based on available ingredient information. Concentrated or uncontrolled releases may adversely affect aquatic environments through nutrient enrichment.

Persistence and Degradability

Conventional biodegradability criteria are not applicable to this inorganic salt. In the environment, ammonium participates in natural microbial nitrogen-cycle processes including nitrification and denitrification.

Bioaccumulative Potential

Significant bioaccumulation is not expected based on available information.

Mobility in Soil

Ammonium sulfate is highly water soluble and dissociates into ammonium and sulfate ions. Mobility is dependent on soil properties. Ammonium may be retained by cation-exchange sites, while sulfate and transformed nitrogen species may migrate with soil water.

Other Adverse Effects

Large or uncontrolled releases may adversely affect aquatic environments through nutrient enrichment and changes in water chemistry. Avoid uncontrolled release.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Recover or recycle unused product where practicable. Do not discharge bulk product directly into stormwater or surface waters. Dispose of residues, contaminated material and packaging through a licensed waste contractor in accordance with applicable Commonwealth, state, territory and local requirements.

Empty bags or containers should be completely emptied and recycled or disposed of through an appropriate waste service. Do not reuse empty packaging.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Not classified as dangerous goods for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road & Rail, Edition 7.9 (ADG Code).

UN number	Not applicable.
UN proper shipping name	Not applicable.
Transport hazard class	Not applicable.
Packing group	Not applicable.
Subsidiary risk(s)	Not applicable.
Environmental hazards for transport purposes	Not classified.
Special precautions for user	None identified.
Additional information	Not applicable.
Hazchem code	Not applicable.

15. REGULATORY INFORMATION

International conventions and agreements:

No specific international convention applicable to the product has been identified.

Safety, health and environmental regulations

Poisons scheduling: Not scheduled under the current Australian Poisons Standard.

16. OTHER INFORMATION

This Safety Data Sheet is based on the Safe Work Australia Model Code of Practice: Preparation of Safety Data Sheets for Hazardous Chemicals and the Globally Harmonized System of Classification and Labelling of Chemicals, Seventh Revised Edition (GHS 7), as adopted under Australian work health and safety legislation.

Date of preparation	29 August 2026
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Disclaimer	The information in this SDS is based on information reasonably available to the Australian manufacturer or importer at the date of preparation or review. It describes the product in relation to workplace health and safety requirements and is not a product specification or warranty of performance. The product should be used only for the applications identified in Section 1 and in accordance with the information in this SDS. Users remain responsible for assessing workplace risks arising from their particular use conditions and for complying with applicable legislation.

End of Report