Safety Data Sheet AMMONIUM CARBONATE

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SECTION 1: Identification

GHS Product identifier

Product name	AMMONIUM CARBONATE

Other means of identification

AMMONIUM CARBONATE LR
AMMONIUM CARBONATE AR
Ammonium sesquicarbonate, Crystal ammonia, Hartshorn salt

Recommended use of the chemical and restrictions on use

Analytical and laboratory reagent, baking powders, carminative, smelling salts, ammonium salts, medicine (expectorant), fire extinguishing compounds, pharmaceuticals, textiles (mordant), fermentation accelerator in wine manufacture, organic chemicals, ceramics and washing wool.

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

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

- Acute toxicity, oral, Cat. 4

GHS label elements, including precautionary statements

Pictograms

Signal word	**Warning**

Hazard statement(s)

H302	Harmful if swallowed

Precautionary statement(s)

P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physcian if you feel unwell,
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 157.13

[00] Information on Composition: A mixture of ammonium bicarbonate and ammonium carbamate, obtained by subliming a mixture of ammonium sulfate and calcium carbonate. Contains 30-34% ammonia and about 45% carbon dioxide.

Components

Component	CAS no.	Concentration
Ammonium carbonate (EC no.: 233-786-0)	**10361-29-2**	**100 % (weight)**
CLASSIFICATIONS: Acute toxicity, oral, Cat. 4. HAZARDS: H302 - Harmful if swallowed.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	Remove to fresh air. If breathing has stopped, apply artificial respiration. If symptoms persist, obtain medical attention.
In case of skin contact	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. If persistent irritation occurs, obtain medical attention.
In case of eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. If rapid recovery does not occur, obtain medical attention
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
Treat symptomatically based on judgement of doctor and individual reactions of the patient.

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media
Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Specific hazards arising from the chemical
Hazards from Combustion Products: Toxic, poisonous gases of ammonia and carbon dioxide may be emitted in fire.

Material does not burn. Fire or heat will produce toxic and irritating fumes. Runoff may pollute waterways.

Special protective actions for fire-fighters
Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.
Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up
Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

SECTION 7: Handling and storage

Precautions for safe handling
Keep container and material away from incompatibles such as metals, copper, acids, and other alloys. May corrode metallic surfaces. Do not use metalic spatulas or other metal items. Do not empty into drains, dispose material and container in a safe manner.

Conditions for safe storage, including any incompatibilities
Store away from incompatibles such as acids and acid salts, alkali hydroxides, nitrates, nitrites, salts of iron and zinc, copper, nickel and other alloys, alkaliods, alum, calomel and tartar emetic. Air sensitive.

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 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

Wear suitable protective clothing and gloves to prevent skin contact. Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	White translucent lumps or powder.
Color	No data available.
Odor	Strong odour of ammonia.
Odor threshold	No data available.
Melting point/freezing point	Volatilises at 58 - 60 °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	58 - 60 °C
Oxidizing properties	No data available.
pH	9 - 10 (100 g/l, H2O, 20 °C)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Very soluble in water (320 g/l at 20 °C). Solubility in Organic Solvents: The carbamate portion dissolves in alcohol.
Partition coefficient n-octanol/water (log value)	log Pow: 0.184
Vapor pressure	188 hPa (20 °C)
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 1.5 (Water = 1)
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity
None under normal use conditions.

Chemical stability
Decomposes on exposure to air with loss of NH3 and CO2, becoming white and powdery and converting into ammonium bicarbonate.

Possibility of hazardous reactions
Hazardous Polymerization: Will not occur.

Conditions to avoid
Exposure to air. High temperatures. Light. Incompatibles.

Incompatible materials
Acids and acid salts, alkali hydroxides, nitrates, nitrites, salts of iron and zinc, alkaliods, aluminium. Corrosive to copper, nickel and other alloys.

Hazardous decomposition products
Ammonia, oxide of carbon.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Acute Toxicity - Oral: LD50(rat): 1800 mg/kg (OECD Test Guideline 401)

Ingestion: Harmful if swallowed. May causes gastrointestinal tract irritation. Symptoms are diuretic effects, nausea, vomiting, thirst, headache and possible mental confusion. It is very unlikely that accidental ingestion will have more than a diuretic effect.

Inhalation: Dust accumulation and ammonina vapours may cause irritation to the mucous membranes of the respiratory tract. Symptoms include of coughing, wheezing, vomiting and redness to the mucous membranes. Concentrations (> 1000 ppm) may cause restlessness, chest pains, pulmonary edema, weak pulse and cyanosis.

Skin corrosion/irritation
Symptoms include of itching, redness and pain resulting in skin burns if not treated.

Serious eye damage/irritation
Causes eye irrritation, redness and pain resulting in eye burns if not treated.

Respiratory or skin sensitization
No data available.

Germ cell mutagenicity
No data available.

Carcinogenicity
No data available.

Reproductive toxicity
No data available.

Summary of evaluation of the CMR properties
No data available.

Specific target organ toxicity (STOT) - single exposure
No data available.

Specific target organ toxicity (STOT) - repeated exposure
No data available.

Aspiration hazard
No data available.

Additional information
No data available.

SECTION 12: Ecological information

Toxicity
Acute Toxicity - Fish: LC50 - 119.46mg/l 96hr

Persistence and degradability
No data available.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Results of PBT and vPvB assessment
No data available.

Endocrine disrupting properties
No data available.

Other adverse effects
No data available.

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

Canadian Domestic Substances List (DSL)
Chemical name: Carbonic acid, ammonium salt
CAS: 10361-29-2

Pennsylvania Right To Know Components
Chemical name: Carbonic acid, ammonium salt
CAS number: 10361-29-2

SECTION 16: Other information

Further information/disclaimer
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.

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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 fot 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 Airbourne Contaminants, December 2019
Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au
IATA, Dangerous Goods Regulations (DGR)
IMO, International Maritime Dangerous Goods Code (IMDG)