Infosafe No™ 1CHE4 Issue Date :November 2021 RE-ISSUED by CHEMSUPP

Product Name **AMMONIUM HYDROGEN CARBONATE**

Classified as hazardous

1. Identification

GHS Product Identifier	AMMONIUM HYDROGEN CARBONATE
Company Name	CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia
Telephone/Fax Number	Tel: (08) 8440-2000
Emergency phone number	CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)
E-mail Address	www.chemsupply.com.au
Recommended use of the chemical and restrictions on use	Production of ammonium salts, dyes, pigments; leavening agent for cookies, crackers and cream-puff doughs; fire extinguishing compounds; pharmaceuticals; degreasing textiles; blowing agent for foam rubber, manufacture of porous plastics, ceramics; in cooling baths; in cold wave solutions; in chrome leather tanning; to remove gypsum from heat exchanges and other processing equipment, boiler scale removal; in compost heaps to accelerate decomposition; as fertilizer; and laboratory reagent.

Other Names

Name	Product Code
Ammonium Bicarbonate	
Ammonium carbonate, Ammonium acid carbonate, Monoammonium carbonate	
AMMONIUM HYDROGEN CARBONATE AR	AA037

Other Information

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.

2. Hazard Identification

GHS classification of the substance/mixture	Acute Toxicity - Oral: Category 4
Signal Word (s)	WARNING
Hazard Statement (s)	H302 Harmful if swallowed.
Pictogram (s)	Exclamation mark

Precautionary statement – Prevention	P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product.
Precautionary statement – Response	P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth.

Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Ammonium Hydrogen Carbonate	1066-33-7	100 %

4. First-aid measures

Inhalation	Remove from exposure, rest and keep warm. If breathing has stopped, apply artificial respiration. If breathing is difficult, give oxygen. If irritation develops and persists, seek immediate medical attention.
Ingestion	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.
Skin	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. If persistent irritation occurs, obtain medical attention.
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
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Hazards from Combustion Products	Irritating and toxic ammonia gas, carbon dioxide, steam, carbon monoxide and nitrogen oxides.
Specific Methods	Use extinguishing media most appropriate for the surrounding fire. No limitations to the type of extinguishing media. Small fire: Use dry chemical, CO2, water spray or foam. Large fire: Use water spray, fog or foam.
Decomposition Temp.	~60 °C (volatilizes with decomposition).
Precautions in connection with Fire	Wear SCBA and structural firefighter's uniform.

6. Accidental release measures

Personal Precautions	Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.

7. Handling and storage

Precautions for Safe Handling	Avoid ingestion and inhalation of dust, mist, or vapour. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Minimize dust generation and accumulation. Keep container tightly closed when not in use. Protect against physical damage. Use with adequate ventilation. DO NOT enter confined spaces where airborne dusts exceed exposure limits. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Wear appropriate protective equipment. It is essential that all who come into contact with this material, maintain high standards of personal hygiene i.e. washing hands prior to eating, drinking, smoking or going to the toilet. Wash thoroughly after handling. Wash clothing before reuse. Keep away from heat, sources of ignition.

Conditions for safe storage, including any incompatibilities	Store in a tightly closed container, in a cool, dry, well-ventilated place away from incompatible materials. Heat sensitive. Store below 15 °C to minimize decomposition. Air, light and moisture sensitive. Keep away from acids, alkalies, oxidising agents, moisture. Store out of direct sunlight. Avoid extreme heat or open flame. Protect against physical damage.
Corrosiveness	May attack copper, nickel and zinc.
Storage Temperatures	Store below 15 °C to minimize decomposition.
Unsuitable Materials	Copper, nickel and zinc.

8. Exposure controls/personal protection

Other Exposure Information	No exposure standards have been established for this product by Safe Work Australia, however, the TWA exposure standard for dusts/mists not otherwise specified is 10 mg/m3. All atmospheric contamination should be kept to as low a level as is workable. These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
Appropriate engineering controls	Maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.
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.
Eye 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.
Hand Protection	Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
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 impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. Physical and chemical properties

Form	Solid
Appearance	White crystalline powder.
Odour	Slight ammoniacal odour.
Decomposition Temperature	~60 °C (volatilizes with decomposition).
Melting Point	107.5 °C (very rapid heating)

Solubility in Water	Soluble (176 g/L @ 20 °C).
Solubility in Organic Solvents	Soluble in glycerol (1 g/10 ml). Insoluble in alcohol, acetone, benzene.
Specific Gravity	1.586
pH	pH 8 (50 g/l H2O)
Vapour Pressure	67 hPa (20 °C)
Volatile Component	0 %vol @ 21 °C
Partition Coefficient: n-octanol/water	log Pow = -2.4
Flammability	Non-combustible.
Explosion Properties	This material in sufficient quantity and reduced particle size may be capable of creating a dust explosion.
Molecular Weight	79.06

10. Stability and reactivity

Chemical Stability	Ammonium bicarbonate is comparatively stable at room temperature; at about 60°C it volatilizes with decomposition giving off ammonia 21.5%, carbon dioxide 55.7%, steam 22.8%.
Conditions to Avoid	Heating over 40 °C (decomposition), hot water, moisture, air, dust generation, sources of heat and ignition and incompatibles.
Incompatible Materials	Nitrites, nitrates, acids, caustic alkalis, alkali metals, copper, nickel, zinc and strong oxidizing agents.
Hazardous Decomposition Products	Irritating and toxic ammonia gas, carbon dioxide, steam, carbon monoxide and nitrogen oxides.
Possibility of hazardous reactions	Exothermic reaction with nitrites and nitrates. Can react dangerously with acids, caustic alkalis and strong oxidizing agents.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat): 1576 mg/kg.
Ingestion	Harmful if swallowed. Large oral doses may cause irritation and pain to the gastrointestinal system. Symptoms may include pain, nausea, vomiting and diarrhoea.
Inhalation	Dust may cause irritation of the nose, throat, and lungs. Ammonia vapours released upon decomposition may cause irritation of the upper respiratory tract, with coughing, headaches, nausea, vomiting, redness to the mucous membranes, and possible breathing difficulties. Higher concentrations (> 1000 ppm) may cause restlessness, tightness in the chest, pulmonary oedema, weak pulse, and cyanosis.
Skin	Causes degreasing of the skin, possibly followed by secondary inflammation, which may be characterised by irritation, itchiness, pain, scaling, redness, or, occasionally, blistering, and possible dermatitis. May be harmful if absorbed through the skin.
Eye	May causes eye irritation, redness, pain, lacrimation and possible corneal injury. Irritation is caused primarily by the release of ammonia vapour.
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 listed in the IARC Monographs. Not classified based on available information.

Reproductive Toxicity	Not classified based on available information.
STOT-single exposure	Not classified based on available information.
STOT-repeated exposure	Not classified based on available information.
Health Hazard	With large doses of ammonium bicarbonate, particularly if material is administered parentally, there arises the possibility of sufficient absorption to produce diuresis and systemic ammonia poisoning.
Chronic Effects	Repeated exposure of the eyes to a low level of dust can produce eye irritation. Prolonged or repeated skin exposure can produce skin destruction or dermatitis. Prolonged or repeated inhalation of dust can produce varying degree of respiratory irritation, respiratory disorders or lung damage.
Serious eye damage/irritation	Not classified based on available information.
Skin corrosion/irritation	Not classified based on available information.

12. Ecological information

Environmental Fate	Behaviour in environmental compartments: Distribution: Log P (o/w): -2.4
Bioaccumulative Potential	No bioaccumulation is to be expected (log P(o/w) <1.0).
Environmental Protection	Do not allow to enter waters, waste water, or soil!
Acute Toxicity - Fish	LC50 (Onchorhynchus mykiss): 98.3 mg/l/96h

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information	Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. Regulatory information

Regulatory Information	All the constituents of this product are listed on the Australian Inventory of Chemical Substances (AICS), or exempted. Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Poisons Schedule	Not Scheduled

16. Other Information

Literature References	'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'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.
Contact Person/Point	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However,

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Empirical Formula & Structural Formula

NH4HCO3

...End Of MSDS...