

Material Safety Data Sheet

AMMONIUM CARBONATE

Section 1 - Product Identification

Synonyms : Ammonium Carbonate
Molecular Weight : 96.09 g/mol
Chemical Formula : $(\text{NH}_4)_2\text{CO}_3$
Company Identification : Tradeasia International Pte. Limited
Address : 133 Cecil Street # 12-03 Keck Seng Tower, Singapore
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Email: contact@chemtradeasia.com
Recommended use of the chemical and restrictions on use
The product is used in industrial manufacturing, in particular in:
-Lubricating process

Section 2 – Composition/Information on Ingredients

Chemical Name	EC No/CAS No	Purity, %
Ammonium Carbonate	1066-33-7	max. 99.9

Section 3 – Hazards Identification

3.1 Classification

This chemical is considered hazardous according to Regulation (EC) No 1272/2008

3.2 Label elements

3.2.1 Hazard Pictogram :



3.2.2 Signal Word : Danger

3.2.3 Hazard Statement : harmful if swallowed; causes skin irritation; causes eye damage

Section 4 – Composition/ information on ingredients

4.1 Composition comments

Component Ammonium carbonate

CAS No. 1066-33-7

Weight >95

Section 5 – First-Aid Measures

5.1. Description of first aid measures

Skin contact

Wash off immediately with plenty of water and soap for at least 15 minutes. Get medical attention if symptoms occur

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Inhalation

If symptoms such as nose or throat irritation are observed, remove to fresh air. If not breathing, give artificial aspiration. Get medical attention if any symptoms occur

Ingestion

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur

5.2. Most important symptoms and effects, both acute and delayed

No data available

5.3. Indication of any immediate medical attention and special treatment needed

No data available

Section 6 – Fire Fighting Measures

6.1. Suitable Extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

6.2. Specific hazards arising from the chemical

Fire may cause evolution of: nitrogen oxides, ammonia

6.3. Special protective actions for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing

Section 7 – Accidental Release Measures

7.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert

7.2. Environmental precautions

Must not be released into the environment

7.3. Methods and material for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions. Dispose of properly. Clean up affected area

Section 8 – Handling and Storage

8.1. Precautions for safe Handling

Wear personal protective equipment/face protection. Keep away from open flames, hot surfaces and sources of ignition. Use spark-proof tools and explosion-proof equipment. T Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation.

8.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Protect from direct sunlight.

Section 9 – Exposure Controls/Personal Protection

9.1. Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

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

Respiratory protection

In case of prolonged exposure to dust wear a personal respirator in compliance with national legislation (make reference to the appropriate CEN standard)

Eyes and hands protection

Goggles and gloves are not required for normal industrial exposures, but may be warranted if environment is excessively dusty.

Section 10 – Physical and Chemical Properties

10.1. Information on basic physical and chemical properties

Appearance : colorless solid

Odour : ammoniacal

Odour threshold : No information available

pH @ 20°C : 9.4 at 100 g/L

Melting point : N.A.

Boiling point : N.A.

Flash point : does not flash

Evaporation rate : N.A.

Flammability : the product is not flammable

Upper/lower flammability or explosive limits : N.A.

Vapour pressure : 69 hPa at 20 °C

Vapour density : N.A.

Relative density : N.A.

Solubility in water : 320 g/L at 20 °C

Partition coefficient: n-octanol/water : N.A.

Auto-ignition temperature : N.A.

Decomposition temperature : > 59 °C

Viscosity : N.A.

10.2. Other information

Molecular weight : 96.09 g/mol

Specific gravity : No information available

Section 11 – Stability and Reactivity

11.1. Reactivity

No data available

11.2. Chemical stability

The product is chemically stable under standard ambient conditions (room temperature)

11.3. Possibility of hazardous reactions

Exothermic reaction with nitrates, nitrites, acids, alkalines, bases

11.4. Conditions to avoid:

Heating

11.5. Incompatible materials

No data available

11.6. Hazardous decomposition products

Nitrogen oxides, ammonia

Section 12 – Toxicological Information

12.1 Health effects associated with ingredients

LD50 Oral > 1800 mg/kg rat

LD50 Dermal > 2000 mg/kg rat

12.2 Health effects associated with compounds formed during processing

Causes mucosal irritations

12.3 Information on likely routes of exposure

No information available

Section 13 – Ecological Information

13.1. Toxicity

Freshwater fish LC50 > 173 mg/L 96 h (*Oncorhynchus mykiss*)

Water Fleas EC50 > 63 mg/L 48 h (*Daphnia magna*)

13.2.3. Bioaccumulative potential

No information available

13.4. Mobility in soil

No information available

13.5. Other adverse effects

Discharge into the environment must be avoided

Section 14 – Disposal Considerations

14.1. Disposal methods

Chemical waste generators must determine whether a discarded material is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Section 15 – Transport Information

15.1. UN number : N.A.

15.2. UN proper shipping name : N.A.

15.3. Transport of hazard classes : N.A.

15.4. Packing group : N.A.

15.5. Environmental hazards : N.A.

15.6. Special precautions for user : N.A.

15.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: N.A.

Section 16 – Regulatory Information

15.1. Safety, health and environmental regulations

It should be noted that the product is safe under conditions of normal handling and use, besides, they are essential nutrients to plants, and research shows that they play a beneficial role in human health. CLP classification has been solely based on animal tests where animals were exposed to high doses of boric acid over long periods of time. These doses were many times higher than humans are exposed to under conditions of normal handling and use. Consequently, a precautionary decision was taken by the European Commission. Although we will comply with the body of legislation triggered by that decision, we are in process of all possible legal actions.

Ensure all national/local regulations are observed.

Section 16 : Additional Information

16.1. Mainly changes made to the previous version of this Material Safety Data Sheet (MSDS):

- This MSDS complies with ISO 11014; the requirements of UN-GHS

Revision No	Revision content
05	<ul style="list-style-type: none">• This SDS is updated in accordance with the GHS (Rev.6) (2015)-Guidance on the Compilation of Safety data Sheets.• This SDS is updated in line with Eti Maden Corporate identity.

16.2. List of abbreviation and acronyms used in this MSDS

SDS : Safety Data Sheets

Index N° : atomic number of the element most characteristic of the properties of the substance

CAS No : Chemical Abstracts Service number

EC No : EINECS Number : European Inventory of Existing Commercial Substances

Repr. Cat. 2 : Substance presumed human reproductive toxicant

Acute Oral Cat. 5 : Substance which is of relatively low acute oral toxicity.

GHS : Globally Harmonised System of Classification and Labelling

LD₅₀ : Median Lethal Dose

LC₅₀ : Lethal Concentration, 50%

N.A. : Not Applicable

OSHA : Occupational Safety & Health Administration

Cal OSHA : The State of California Division of Occupational Safety and Health (DOSH)

PEL : Permissible Exposure Limits

ACGIH : American Conference of Governmental Industrial Hygienists

TLV : Threshold Limit Value

Japanese MITI : Japanese Ministry of International Trade and Industry

EC₅₀ : Half maximal effective concentration

UN : United Nations

U.S. EPA TSCA Inventory: Inventory of the chemical substances manufactured or processed in the United States according to Toxic Substances Control Act compiled and published under the authority of the Environmental Protection Agency

Canadian DSL: Canadian Domestic Substances List

16.3. List of relevant hazard statements and precautionary statements used in this MSDS

Hazard Statement

H361 d: Suspected of damaging the unborn child

H319: Causes serious eye irritation

H303: May be harmful if swallowed

Precautionary Statements

Prevention

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P281: Use personal protective equipment as required.

P264: Wash eyes thoroughly after handling.

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P308 + P313: If exposed or concerned: get medical advice/attention.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

Storage

P405: Store locked up.

Disposal

P501: Dispose of contents/container to in accordance with local regulations.

16.4. References

1. Litovitz T L, Norman S A, Veltri J C, Annual Report of the American Association of Poison Control Centers Data Collection System. Am. J. Emerg. Med. (1986), 4, 427-458
2. Denton SM (1996). Acute oral toxicity study in the rat: anhydrous boric acid. Final report. Report no.: 1341/7-1032.
3. National Toxicology Program (NTP) – Technical Report Series No. TR324, NIH Publication No. 88 2580 (1987), PB88 213475/XAB
4. Fail et al., Fund. Appl. Toxicol. (1991) 17, 225-239
5. Heindel et al., Fund. Appl. Toxicol. (1992) 18, 266-277
6. Birge W J, Black J A, EPA-560/-76-008 (April 1977) PB 267 085

7. Scialli AR, Bonde JP, Bröske-Hohlfeld I, Culver D, Li Y, Sullivan FM; ELSEVIER 2009
 8. Robbins WA, Xun L, Jia J, Kennedy N, Elashoff DA, Ping L. ;ELSEVIER 2009;(Reproductive Toxicology)
 9. Hansveit and Oldersma, 2000; TNO Nutrition and Food Research Institute. Report No. V99.157.
 10. Gersich, FM (1984a). Environ.Toxicol.Chem., 3 #1, 89-94 (1984)
 11. Soucek et al., 2010. Illinois Natural History Survey, University of Illinois.
- For general information on the toxicology of borates see ECETOC Technical Report No. 63 (1995); Patty's Industrial Hygiene and Toxicology, 4th Edition Vol. II, (1994) Chap. 42, 'Boron'.

16.5. Disclaimer of Liability

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