1. IDENTIFICATION

Product Name	**Ammonia 25%**
Other Names	Ammonia aqua; Ammonia Aqueous; Ammonia Aqueous, 25%; Ammonia solution; Ammonia water; Ammonia, aqueous solution; Ammonium liquor
Uses	Cleaning/washing agents and additives; explosives; pH regulating agent; photochemical; flotation agent; laboratory chemical; manufacture of other chemicals.
Chemical Family	No Data Available
Chemical Formula	H5NO
Chemical Name	Ammonium, aqueous solution
Product Description	Strongly alkaline.

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Aurora Cleaning Supplies	F1/ 5 Bungaleen Court Dandenong South, VIC, 3175	03 9768 2669

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	131126

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Schedule 6

Globally Harmonised System

Hazard Classification Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Hazard Categories

Corrosive to Metals - Category 1

Acute Toxicity (Oral) - Category 4

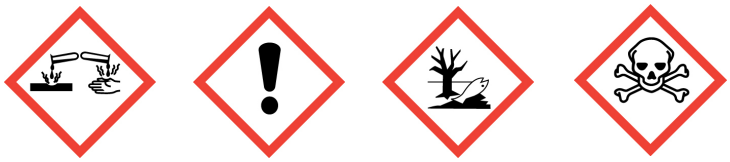
Skin Corrosion/Irritation - Category 1C

Serious Eye Damage/Irritation - Category 1

Specific Target Organ Toxicity (Single Exposure) - Category 3

Acute Hazard To The Aquatic Environment - Category 1

Pictograms



Signal Word Danger

Hazard Statements

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
AUH071	Corrosive to the respiratory tract

Precautionary Statements

Prevention	**P260**	Do not breathe mist/vapour/spray.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P273	Avoid release to the environment.
	P270	Do not eat, drink or smoke when using this product.
	P271	Use only outdoors or in a well-ventilated area.
Response	**P303 + P361 + P353**	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	P310	Immediately call a POISON CENTER or doctor.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P363	Wash contaminated clothing before reuse.
	P391	Collect spillage.
	P304 + P340	IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
	P390	Absorb spillage to prevent material-damage.
Storage	**P403 + P233**	Store in a well-ventilated place. Keep container tightly closed.
	P405	Store locked up.
	P406	Store in corrosive resistant container with a resistant inner liner.
Disposal	**P501**	Dispose of contents/container in accordance with local / regional / national / international regulations.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Ammonia, aqueous solution	Unspecified	1336-21-6	>10 - <=35 %
Water	H2O	7732-18-5	Balance %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then drink a glass of water. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician for advice. Never give anything by mouth to an unconscious person.
Eye	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Immediately call a Poison Centre or doctor/physician for advice. Can cause corneal burns - Urgently seek medical assistance!
Skin	IF ON SKIN (or hair): Remove and isolate contaminated clothing and shoes. Immediately flush skin and hair with running water for at least 15 minutes. Immediately call a Poison Centre or doctor/physician for advice. Wash contaminated clothing and shoes before reuse. * For minor skin contact, avoid spreading material on unaffected skin.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Remove contaminated clothing and loosen remaining clothing. Immediately call a Poison Centre or doctor/physician for advice. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.
Advice to Doctor	Treat symptomatically. Keep victim calm and warm. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Following severe exposure, the patient should be kept under medical supervision for at least 48 hours due to the possibility of delayed pulmonary oedema. *Ensure that attending medical personnel are aware of identity and nature of product(s) involved, and take precautions to protect themselves.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	Consider evacuation. If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.
Flammability Conditions	Non-combustible; substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
Extinguishing Media	If material is involved in a fire, use dry chemical, Carbon dioxide (CO2), foam or water spray for extinction - Do not use water jets.
Fire and Explosion Hazard	Ammonia decomposes into flammable hydrogen gas at approximately 450 °C. May form flammable mixtures in air. The presence of oil or other combustible material will increase the fire hazard. Fatalities have occurred as a result of the explosive nature of the ammonia gas.

Hazardous Products of Combustion	Fire may produce irritating, corrosive and/or toxic gases, including ammonia, nitrogen oxides, hydrogen.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may be corrosive and/or toxic and cause pollution.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing - It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Flash Point	No Data Available
Lower Explosion Limit	16 %
Upper Explosion Limit	25 %
Auto Ignition Temperature	No Data Available
Hazchem Code	2R

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material - Slippery when spilt. Avoid accidents, clean up immediately! Do not breathe vapours and prevent contact with eyes, skin and clothing.
Clean Up Procedures	Absorb or cover with dry earth, sand or other non-combustible material and transfer to properly labelled containers for disposal (see SECTION 13).
Containment	Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	Neutralise with dilute acid.
Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses. If contamination of sewers or waterways has occurred, advise local emergency services.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground.
Personal Precautionary Measures	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (see SECTION 8). *Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation - Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Do not breathe mist/vapours/aerosols and prevent contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8). Keep away from heat and sources of ignition - No smoking. Avoid release to the environment - Collect spillage (see SECTION 6). *Caution should be exercised when opening storage containers or vessels. Flammable concentrations of ammonia gas can accumulate in the head space.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed when not in use - check regularly for leaks. Keep away from heat and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store locked up.
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	For Ammonia: - Safe Work Australia Exposure Standard: TWA = 25 ppm (17 mg/m3); STEL = 35 ppm (24 mg/m3). - New Zealand Workplace Exposure Standard [Next review 2023]: TWA = 25 ppm (17 mg/m3); STEL = 35 ppm (24 mg/m3).

Exposure Limits	No Data Available
Biological Limits	No information available.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal Protection Equipment	- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: If determined by a risk assessment an inhalation risk exists, wear an air-supplied mask (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Chemical goggles, full face shield (not required if wearing full-face, air-supplied mask). - Hand protection: Wear protective gloves. Recommended: Elbow-length, impervious gloves. - Skin/body protection: Wear appropriate eye protection to prevent eye contact. Recommended: Wear overalls, splash apron and rubber boots.
Special Hazards Precaustions	No information available.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Always wash hands before smoking, eating, drinking or using the toilet. Remove contaminated clothing and shoes immediately. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Clear liquid
Odour	Sharp, irritating
Colour	Colourless
pH	11.7 (1% aqueous solution)
Vapour Pressure	6.9 - 10.5 psi (@ 20 °C)
Relative Vapour Density	0.6 Air = 1
Boiling Point	18 - 37 °C
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	Miscible with water
Specific Gravity	0.88 - 0.92
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	35.04
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	100 %

VOC Volume	No Data Available
Additional Characteristics	No information available.
Potential for Dust Explosion	Not applicable.
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	The presence of oil or other combustible material will increase the fire hazard.
Properties That May Initiate or Contribute to Fire Intensity	Non-combustible; substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating, corrosive and/or toxic gases, including ammonia, hydrogen.
Release of Invisible Flammable Vapours and Gases	Ammonia decomposes into flammable hydrogen gas at approximately 450 °C. May form flammable mixtures in air.

10. STABILITY AND REACTIVITY

General Information	Reacts violently with acids.
Chemical Stability	Reacts exothermically with strong mineral acids. May form explosive compounds with mercury, halogens and hypochlorites.
Conditions to Avoid	Keep away from heat and sources of ignition. Avoid exposure to light.
Materials to Avoid	Incompatible/reactive with peroxides, metal salts, acids and reducing agents. Corrosive to copper, nickel, tin, zinc and their alloys.
Hazardous Decomposition Products	Fire/decomposition may produce irritating, corrosive and/or toxic gases, including ammonia, hydrogen.
Hazardous Polymerisation	No information available.

11. TOXICOLOGICAL INFORMATION

General Information

- Acute toxicity: Harmful if swallowed. May be harmful if inhaled. Swallowing may cause nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the mouth, throat and gastrointestinal tract. Inhalation of high concentrations may cause severe breathing difficulties, chest pain and lung damage, including pulmonary oedema and death.
- Skin corrosion/irritation: Corrosive to skin! Causes severe skin burns and eye damage.
- Eye damage/irritation: Corrosive to eyes! Causes serious eye damage.
- Respiratory/skin sensitisation: No information available.
- Germ cell mutagenicity: Not considered to have significant genotoxic potential [NICNAS].
- Carcinogenicity: Considered to have a low potential to cause carcinogenic effects [NICNAS].
- Reproductive toxicity: Not expected to cause specific reproductive or developmental toxicity [NICNAS].
- STOT (single exposure): Corrosive to the respiratory tract! May cause respiratory irritation. Breathing in mists or aerosols will produce respiratory irritation.
- STOT (repeated exposure): Not expected to cause systemic effects following repeated exposure, although local effects in the gastrointestinal tract, eye and respiratory tract irritation, could occur [NICNAS]. Repeated or prolonged exposure may cause bronchitis. Chronic exposure to ammonia may cause chemical pneumonitis and kidney damage.
- Aspiration toxicity: No information available.

Acute

Ingestion

Acute toxicity (Oral):
COMPONENT: Aqueous ammonia (CAS No. 1336-21-6):
- LD50, Rats: 350 mg/kg bw. [NICNAS].

Carcinogen Category None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity: - LC50, Fish (Rainbow trout): 0.53 mg/L (96 h) [for Ammonia; Supplier's SDS].
Persistence/Degradability	The material is biodegradable.
Mobility	No information available.
Environmental Fate	Very toxic to aquatic life - Avoid release to the environment.
Bioaccumulation Potential	Does not bioaccumulate.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations.
Special Precautions for Land Fill	No information available.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	AMMONIA SOLUTION, relative density between 0.880 and 0.957 at 15°C in water, with more than 10% but not more than 35% ammonia
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	2672
Hazchem	2R
Pack Group	III
Special Provision	No Data Available

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	AMMONIA SOLUTION relative density between 0.880 and 0.957 at 15°C in water, with more than 10% but not more than 35% ammonia
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	2672
Hazchem	2R
Pack Group	III
Special Provision	No Data Available

Land Transport (New Zealand)
NZS5433

Proper Shipping Name	AMMONIA SOLUTION, relative density between 0.880 and 0.957 at 15°C in water, with more than 10% but not more than 35% ammonia
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	2672
Hazchem	2R
Pack Group	III
Special Provision	No Data Available

Land Transport (United States of America)
US DOT

Proper Shipping Name	AMMONIA SOLUTION relative density between 0.880 and 0.957 at 15°C in water, with more than 10% but not more than 35% ammonia
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
ERG	154 Substances - Toxic and/or Corrosive (Non-Combustible)
UN Number	2672
Hazchem	2R
Pack Group	III
Special Provision	No Data Available

Sea Transport
IMDG Code

Proper Shipping Name	AMMONIA SOLUTION relative density between 0.880 and 0.957 at 15°C in water, with more than 10% but not more than 35% ammonia
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	2672
Hazchem	2R
Pack Group	III
Special Provision	P
EMS	F-A, S-B
Marine Pollutant	Yes

Air Transport
IATA DGR

Proper Shipping Name	AMMONIA SOLUTION, relative density between 0.880 and 0.957 at 15 °C in water, with more than 10% but not more than 35% ammonia
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	2672
Hazchem	2R
Pack Group	III
Special Provision	No Data Available

National Transport Commission (Australia)
Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information	AMMONIA
Poisons Schedule (Aust)	Schedule 6

Environmental Protection Authority (New Zealand)
Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR001526 (Reissued)

National/Regional Inventories

Australia (AIIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	Not Determined
Europe (REACh)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

16. OTHER INFORMATION

Related Product Codes	AMAQUB1000, AMAQUB1200, AMAQUB1201, AMAQUB2500, AMAQUB2501, AMAQUB2600, AMAQUB5000,

AMAQUB5001, AMAQUB6000, AMAQUB6500, AMAQUB7000, AMAQUB7001, AMAQUE0700, AMAQUE0701, AMAQUE0800, AMAQUE0900, AMAQUE1000, AMAQUE1001, AMAQUE1002, AMAQUE1003, AMAQUE1004, AMAQUE1005, AMAQUE1006, AMAQUE1007, AMAQUE1008, AMAQUE1009, AMAQUE1010, AMAQUE1011, AMAQUE1012, AMAQUE1015, AMAQUE1050, AMAQUE1100, AMAQUE1115, AMAQUE1200, AMAQUE1300, AMAQUE1400, AMAQUE1500, AMAQUE1600, AMAQUE1800, AMAQUE1801, AMAQUE1802, AMAQUE1803, AMAQUE1804, AMAQUE1805, AMAQUE1806, AMAQUE1807, AMAQUE1808, AMAQUE1809, AMAQUE1810, AMAQUE1811, AMAQUE1812, AMAQUE1813, AMAQUE1814, AMAQUE1815, AMAQUE1816, AMAQUE1817, AMAQUE1818, AMAQUE1819, AMAQUE1820, AMAQUE1821, AMAQUE1822, AMAQUE1823, AMAQUE1824, AMAQUE1825, AMAQUE1826, AMAQUE1827, AMAQUE1828, AMAQUE1829, AMAQUE1830, AMAQUE1831, AMAQUE1832, AMAQUE1833, AMAQUE1834, AMAQUE1835, AMAQUE1836, AMAQUE1843, AMAQUE2000, AMAQUE2001, AMAQUE2500, AMAQUE3000, AMAQUE4000, AMAQUE4500, AMAQUE5000, AMAQUE5200, AMAQUE5500, AMAQUE5501, AMAQUE5521, AMAQUE5700, AMAQUE5800, AMAQUE5900, AMAQUE6000, AMAQUE6100, AMAQUE6200, AMAQUE6300, AMAQUE6301, AMAQUE6302, AMAQUE6303, AMAQUE6304, AMAQUE6305, AMAQUE6306, AMAQUE6307, AMAQUE6400, AMAQUE6500, AMAQUE6600, AMAQUE6700, AMAQUE6800, AMAQUE6900, AMAQUE7000, AMAQUE7200, AMAQUE7300, AMAQUE7800, AMAQUE7900, AMAQUE7901, AMAQUE8000, AMAQUE8200, AMAQUE8201, AMAQUE8202, AMAQUE8205, AMAQUE8300, AMAQUE8301, AMAQUE8400, AMAQUE8500, AMAQUE8800, AMAQUE9000, AMAQUE9001, AMAQUI1000, AMAQUI1001, AMAQUI1004, AMAQUI1005, AMAQUI1006, AMAQUI4000, AMAQUI5000, AMAQUI5800, AMAQUI6000, AMAQUI6100, AMAQUI6400, AMAQUI7000, AMAQUI7001, AMAQUI7002, AMAQUI7070, AMAQUI7500, AMAQUI7501, AMAQUI8000

Revision 3

Revision Date 22/08/2024

Key/Legend

< Less Than
> Greater Than
AICS Australian Inventory of Chemical Substances
atm Atmosphere
CAS Chemical Abstracts Service (Registry Number)
cm^2 Square Centimetres
CO2 Carbon Dioxide
COD Chemical Oxygen Demand
deg C (°C) Degrees Celcius
EPA (New Zealand) Environmental Protection Authority of New Zealand
deg F (°F) Degrees Farenheit
g Grams
g/cm^3 Grams per Cubic Centimetre
g/l Grams per Litre
HSNO Hazardous Substance and New Organism
IDLH Immediately Dangerous to Life and Health
immiscible Liquids are insoluable in each other.
inHg Inch of Mercury
inH2O Inch of Water
K Kelvin
kg Kilogram
kg/m^3 Kilograms per Cubic Metre
lb Pound
LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.
ltr or **L** Litre
m^3 Cubic Metre
mbar Millibar
mg Milligram
mg/24H Milligrams per 24 Hours
mg/kg Milligrams per Kilogram
mg/m^3 Milligrams per Cubic Metre
Misc or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.
mm Millimetre
mmH2O Millimetres of Water
mPa.s Millipascals per Second
N/A Not Applicable
NIOSH National Institute for Occupational Safety and Health
NOHSC National Occupational Heath and Safety Commission
OECD Organisation for Economic Co-operation and Development
Oz Ounce
PEL Permissible Exposure Limit

Pa Pascal
ppb Parts per Billion
ppm Parts per Million
ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours
psi Pounds per Square Inch
R Rankine
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value
tne Tonne
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight