

SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Ammonia Chloride

Other Identifier: Amchlor, Ammoneric; Ammonium muriate; Salmiac, Sal ammoniac

Recommended Use: Industrial use.

Supplier: Midland Chemicals
ABN: 91 622 018 986

Street Address: 18 Elliott Street
Midvale
Western Australia

Telephone Number: +61 08 9274 1992

Facsimile: +61 08 9250 1710

Emergency Telephone: 1 800 033 111 (ALL HOURS)

2. HAZARDS IDENTIFICATION

Road and Rail; Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Globally Harmonised System

Hazard Classification

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

Hazard Categories

Acute Toxicity (Oral) - Category 4
Serious Eye Damage/Irritation - Category 2A

Pictogram



Signal Word

Warning

Hazard Statements

H302 Harmful if swallowed.
H319 Causes serious eye irritation.

SAFETY DATA SHEET

Precautionary Statement

Prevention

P280 Wear eye protection/face protection.
P270 Do not eat, drink or smoke when using this product.
P264 Wash hands thoroughly after handling.

Response

P337 + P313 If eye irritation persists: Get medical advice/attention.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Disposal

P501 Dispose of contents/container in accordance with local / regional / national / international regulations.

Poisons Schedule: Not Scheduled

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion
Ammonium chloride	12125-02-9	<=100 %

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor at once.

Ingestion:	IF SWALLOWED: Rinse mouth, then drink plenty of water. Call a Poison Centre or doctor/physician if you feel unwell.
Eye Contact:	IF IN EYES: Rinse cautiously with 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. If eye irritation persists, get medical advice/attention.
Skin Contact:	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.
Inhalation:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention.
Medical attention and special treatment:	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	If material is involved in a fire, use dry chemical, Carbon dioxide, foam or water spray for extinction.
Hazardous combustion products:	Non-combustible; Material does not burn. In case of fire and/or explosion do not breathe fumes. Fire or heat will produce irritating, toxic and/or corrosive gases, including Nitrogen oxides, ammonia, Hydrogen chloride.
Precautions for fire fighters and special protective equipment:	If safe to do so, move undamaged containers from fire area. Cool containers with flooding quantities of water until well after fire is out. Contain runoff from fire control or dilution water - Runoff may pollute waterways. Contaminated extinguishing water must be disposed of in accordance with official regulations. Wear self-contained breathing apparatus (SCBA) in combination with normal firefighting clothing (fire kit).

SAFETY DATA SHEET

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Use personal protective equipment as required (see SECTION 8).
Emergency procedures:	Spill or leak area should be isolated immediately. Keep unauthorised personnel away; Keep upwind.
Environmental Precautions:	Avoid release to the environment; Prevent entry into drains and waterways.
Methods and materials for Containment and clean up:	Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas. Sweep/shovel up material and place it into suitable, closed containers for later disposal (see SECTION 13). Avoid raising dust.
Decontamination:	Wash away remainder with plenty of water.

7. HANDLING AND STORAGE

This material must be stored, maintained and used in accordance with the relevant regulations.

Conditions for safe storage:	Store in a cool, dry and well-ventilated place. Keep container tightly closed when not in use - Check regularly for leaks. Protect against moisture. Keep away from incompatible materials (nitrites, nitrates, oxidising agents, strong acids, bases). Keep in the original container.
Precautions for safe handling:	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid handling which leads to dust formation. Avoid breathing dust and contact with eyes, skin and clothing. Use personal protective equipment as required (see SECTION 8).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure control measures:	No Data Available Ammonium chloride (fume): - Safe Work Australia Exposure Standard: TWA = 10 mg/m ³ ; STEL = 20 mg/m ³ . - New Zealand WES: TWA = 10 mg/m ³ ; STEL = 20 mg/m ³ . - OSHA PEL/NIOSH REL: TWA = 10 mg/m ³ ; STEL = 20 mg/m ³ .
Biological limit: Engineering Controls:	No information available. 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 Protective Equipment:	Eye and Face: Wear eye protection/face protection. Recommended: Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards. Use respirators and components tested and approved under appropriate government standards. Skin: Hand protection: Handle with gloves. Recommended: Chemical-resistant gloves, e.g. rubber, plastic. Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Apron, protective boots; chemical-protective suit (in case of splashes/dust). Body protection must be chosen depending on activity and possible exposure. Respiratory: For nuisance exposures, use type P1 particulate respirator; For higher level protection, use combination type ABEK-P2 respirator cartridges. Use respirators and components tested and approved under appropriate government standards.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday. Wash contaminated clothing and other protective equipment before storage or re-use.

SAFETY DATA SHEET

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state/appearance:	Solid, White Crystalline powder, granules
Odour:	Almost odourless
Auto Ignition temperature:	No Data Available
Decomposition Temperature:	No Data Available
Evaporation Rate:	No Data Available
Flammability:	No Data Available
Flash Point:	No Data Available
Initial Boiling Point:	Decomposes
Melting Point:	338 °C (decomposes)
Freezing Point:	No Data Available
Odour Threshold:	No Data Available
Partition coefficient: n-octanol/water:	No Data Available
pH:	No Data Available
Density:	1.53 g/cm ³
Bulk Density:	600 - 900 kg/m ³
Solubility:	372 g/L water 20°C
Explosive limits:	No Data Available
Vapour density:	No Data Available
Vapour pressure:	No Data Available
Viscosity:	No Data Available
Bioaccumulation:	Accumulation in organisms is not to be expected.
Crystallinity:	No Data Available
Dustiness:	No Data Available
Particle size:	No Data Available
Redox potential:	No Data Available
Release of invisible flammable vapours and gases:	Fire or heat will produce irritating, toxic and/or corrosive gases, including Nitrogen oxides, ammonia, Hydrogen chloride. Reacts violently with ammonium nitrate and potassium chlorate causing fire and explosion hazard.
Additional Characteristics:	Hygroscopic: absorbs moisture or water from surrounding air. The solution in water is a weak acid.
Properties That May Initiate or Contribute to Fire Intensity:	Non-combustible; Material does not burn.

SAFETY DATA SHEET

10. STABILITY AND REACTIVITY

Chemical stability:	Stable under recommended storage conditions.
Conditions to avoid:	To avoid thermal decomposition, do not overheat. Avoid dust formation. Protect from moisture.
Incompatible materials:	Reacts violently with oxidising agents, ammonium nitrate and potassium chlorate causing fire and explosion hazard. Incompatible/reactive with strong acids, strong bases, strong oxidizing agents, nitrites, nitrates. Attacks copper and its compounds.
Hazardous decomposition products:	Fire or heat will produce irritating, toxic and/or corrosive gases, including Nitrogen oxides, ammonia, Hydrogen chloride.
Hazardous reactions or Polymerisation:	No information available.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Exposure Limits:	Ammonium chloride (fume): - Safe Work Australia Exposure Standard: TWA = 10 mg/m ³ ; STEL = 20 mg/m ³ . - New Zealand WES: TWA = 10 mg/m ³ ; STEL = 20 mg/m ³ . - OSHA PEL/NIOSH REL: TWA = 10 mg/m ³ ; STEL = 20 mg/m ³ .
Ingestion :	Harmful if swallowed. Swallowing can result in nausea, vomiting, diarrhoea, and gastrointestinal irritation.
Eye contact:	Causes serious eye irritation, redness, pain.
Skin contact:	May cause skin irritation, redness. Not sensitising to the skin.
Inhalation:	Dust may cause respiratory irritation, cough, sore throat. When used at elevated temperatures, vapours/fume may cause irritation of the respiratory tract (mucous membranes), headache, nausea.
Acute Toxicity:	Ingestion: Acute toxicity (Oral): - LD50, Rat: 1,410 mg/kg - LD50, Rat: 1,650 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity:	Aquatic toxicity: - LC50, Fish (<i>Oncorhynchus mykiss</i>): 42.91 mg/L (96 h). - LC50, Fish (<i>Prosopium williamsoni</i>): 46.27 mg/L (96 h). - EC50, Invertebrates (<i>Daphnia magna</i>): 136.6 mg/L (48 h) [static]. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. - EC50, Invertebrates: (<i>Ceriodaphnia dubia</i>): 98.5 mg/L (48 h) [static].
Persistence and degradability:	Inorganic product which cannot be eliminated from water by biological purification processes. Can be oxidized to nitrate, or reduced to nitrogen, by microorganisms.
Bioaccumulative potential:	Accumulation in organisms is not to be expected.
Mobility:	Adsorption to solid soil phase is possible.

SAFETY DATA SHEET

13. DISPOSAL CONSIDERATIONS

Disposal methods: Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility. Or refilled at Big Bubble in Midvale.

14. TRANSPORT INFORMATION

Road and Rail Transport Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

UN number: No Data Available
Proper shipping name; AMMONIUM CHLORIDE
DG Class No Data Available
Packing group
Environmental hazards for transport purposes No Data Available
Special Precaution for user No Data Available
Hazchem No Data Available

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Poisons Schedule: Not Scheduled

SAFETY DATA SHEET

16. OTHER INFORMATION

Revision date: 28/05/2020

Reason for issue: Update SDS

Key/Legend:

< Less Than

> Greater Than

AICS Australian Inventory of Chemical Substances

atm Atmosphere

CAS Chemical Abstracts Service (Registry Number)

cm² Square Centimetres

CO₂ Carbon Dioxide

COD Chemical Oxygen Demand

deg C (°C) Degrees Celcius

g Grams

g/cm³ 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 insoluble in each other.

inHg Inch of Mercury

inH₂O Inch of Water

K Kelvin

kg Kilogram

kg/m³ Kilograms per Cubic Metre

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

m³ Cubic Metre

mbar Millibar

mg Milligram

mg/24H Milligrams per 24 Hours

mg/kg Milligrams per Kilogram

mg/m³ Milligrams per Cubic Metre

Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.

mm Millimetre

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Health and Safety Commission

OECD Organisation for Economic Co-operation and Development

PEL Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

SAFETY DATA SHEET

ppm Parts per Million^{[1][1]}
ppm/2h Parts per Million per 2 Hours^{[1][1]}
ppm/6h Parts per Million per 6 Hours^{[1][1]}
psi Pounds per Square Inch^{[1][1]}
R Ranking^{[1][1]}
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value^{[1][1]} the Tonne^{[1][1]}
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight

This material safety data sheet has been prepared by Midland Chemicals

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. No liability is accepted whether direct or indirect from its application since the conditions of final use are outside Midland Chemicals control. The end user is obliged to conform to relevant government regulations and/or patent laws applicable in their respective States of Countries.