SAFETY DATA SHEET

PRODUCT NAME: AQUA AMMONIA 910 25%

Issue Date: 31 October 2025

SECTION 1 IDENTIFICATION

Product Name: Aqua Ammonia 910
Other Names: Ammonia 910, Ammonium hydroxide solution, Ammonium hydrate, Aqua ammonia 25%
Product Code: ZAMMO, CAA1, CAA5, CAA20
Uses: pH control, as a general-purpose reagent and for preparation of fertilisers, manufacture of inorganic and organic nitrogen containing compounds, condensation catalyst, synthetic fibers, dyeing, neutralising agent, latex preservative, preparation of explosives and sulphite cooking liquors.
Supplier: HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Te Rapa Park, Hamilton
Phone: 07 974 4971 Web: www.hamchem.co.nz Email: info@hamchem.nz

- **In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.**
- **In case of poisoning phone National Poisons Centre – 0800 764 766**

SECTION 2 HAZARD IDENTIFICATION

GHS Classifications
Corrosive to Metals – Category 1
Acute Oral Toxicity – Category 4
Skin Corrosion – Category 1C
Serious Eye Damage – Category 1
Hazardous to the Aquatic Environment – Acute – Category 1

Signal Word: Danger

Hazard Statements:
H290 May be corrosive to metals
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage
H400 Very toxic to aquatic life

Prevention
Keep out of reach of children
Keep only in original packaging
Wash hands thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe fumes/mist/vapours/spray
Wear protective gloves/clothing and eye/face protection
Avoid release to the environment

Response
See also First Aid section 4 on this safety data sheet

IF **SWALLOWED**: Rinse mouth. Do NOT induce vomiting.
IF **SWALLOWED**: Call a POISON CENTRE or Doctor/Physician if you feel unwell
IF ON **SKIN** (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse
IF **INHALED**: Remove to fresh air and keep at rest in a position comfortable for breathing.
Immediately call a POISON CENTRE (0800 764 766) or Doctor/Physician
IF **IN EYES**: Rinse cautiously with water for at least 15 minutes. Remove any contact lenses.
Continue rinsing
Immediately call a POISON CENTRE or Doctor
Absorb spillage to prevent material damage
Collect spillage

Storage
Store locked up
Store in corrosion resistant container with a resistant inner liner

Disposal
Dispose of contents/container, according to local/regional/national regulations

SECTION 3 COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%)
Ammonia, aqueous solution	1336-21-6	25
Water	7732-18-5	75

SECTION 4 FIRST AID MEASURES

General advise: Contact **Poisons Centre 0800-764 766**. Seek medical advise with a photo of product label and or Safety Data Sheet (SDS) at hand. For Emergency ring 111 then ask for ambulance for medical help.

If swallowed: Rinse mouth. DO NOT induce vomiting. Drink one or two glasses of water. Seek immediate medical attention. If more than 20ml is swallowed, call an ambulance.

If on skin: Immediately remove all contaminated clothing. Rinse skin with water or shower. Wash with plenty of cold water. If exposed or if you feel unwell, seek medical advice. Wash contaminated clothing before reuse.

If inhaled: Remove victim from area of exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood – cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical attention.

If in eyes: Immediately Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if any. Continue rinsing for 15 minutes then seek urgent medical attention. Ring 111 and ask ambulance for a serious accident to the eyes.

Note to Physician: Treat symptomatically. Can cause corneal burns. Following severe exposure, the patient should be kept under medical supervision for at least 48 hours.

SECTION 5 FIRE FIGHTING MEASURES

Hazchem Code : 2R

Extinguishing media: Not combustible, however, if material is involved in a fire use: water fog (if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Noncombustible material. May form flammable vapour when mixes with air. Avoid all ignition sources. Caution should be exercised when opening storage containers or vessels. Flammable concentrations of ammonia gas can accumulate in the head space.

Special protective precautions & equipment: If safe to do so, remove containers from path of fire. Keep containers cool with water spray. The main products of combustion of ammonia in air, at or above 780ºC, are nitrogen and water with small amounts of nitrogen dioxide and ammonium nitrate. Ammonia decomposes into flammable hydrogen gas at approximately 450ºC. May form flammable mixtures in air. The presence of oil or other combustible material will increase fire hazard. Fatalities have occurred as a result of the explosive nature of ammonia gas. Fire fighters to wear full body protective clothing and self-contained breathing apparatus. Consider evacuation.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Emergency procedures: Clear area of all unprotected personnel. Shut off all possible sources of ignition. Wear protective equipment to prevent skin and eye contact and breathing in of vapours. Work up wind or increase ventilation. If contamination of sewers or waterways has occurred, advise local and regional council plus emergency services as required.

Methods & materials for containment and clean up: Slippery when spilt. Avoid accidents, clean up immediately. Contain by preventing run off into drains and waterways. Use absorbent inert material (soil, sand or vermiculite). Collect and seal in properly labeled containers or drums for disposal. Wash site of spillage with water.

SECTION 7 HANDLING & STORAGE

Procedure for handling: Contains low boiling substance: Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately. Check for bulging containers. Vent periodically Always release caps or seals slowly to ensure slow dissipation of vapours. Do NOT allow clothing wet with material to stay in contact with skin. Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Wear Eye/face protection, Hand protection, Skin and body protection and respiratory protection. Use in a well-ventilated area.

Suitable container: Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer. For low viscosity materials**:** Drums and jerrycans must be of the non-removable head type. Where a can is to be used as an inner package, the can must have a screwed enclosure.

Storage requirements: Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers

SECTION 8 EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure standards: NZ Workplace Exposure Standards (WES) have been set for this substance:

Ammonia – TWA 17mg/m^3 (25ppm), STEL 24mg/m^3 (35ppm)

Engineering controls: Ensure ventilation is adequate and that air concentrations of components are controlled below Exposure Standards. Keep containers closed when not in use.

Personal protective equipment: Overalls, full face shield, elbow length impervious gloves, splash apron and rubber boots. Wash contaminated clothing before reuse.

SECTION 9 PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Clear colourless liquid
Odour:	Sharp, irritating
Odour Threshold:	0.6-53ppm (detection); 0.7-55ppm (recognition)
Solubility in water:	Miscible in water.
Specific Gravity:	0.910 kg/L @ 20ºC
Relative Vapour Density:	0.6 (Air = 1)
Vapour Pressure:	6.9-10.5 psi (20 ºC)
Flash point:	N/A
Flammability limits (%):	16-25
Boiling point/Range ºC:	18-37
pH:	11.7 (1% aqueous solution)

SECTION 10 STABILITY & REACTIVITY

Reactivity: Reacts violently with acids.

Chemical Stability: May form explosive compounds with mercury, halogens and hypochlorites. Reacts exothermically with strong mineral acids.

Possibility of Hazardous Reactions: Corrosive to copper, nickel, tin, zinc, and their alloys, iron.

Conditions to Avoid: Avoid exposure to heat. Avoid exposure to light.

Incompatible Materials: Incompatible with peroxides, metal salts, acids, reducing agents, some metals.

Hazardous Decomposition Products: Hydrogen. Oxides of nitrogen.

SECTION 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:

Ingestion: Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

Eye contact: A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.

Skin contact: Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.

Inhalation: Breathing in mists or aerosols will produce respiratory irritation. Inhalation of high concentrations may result in shortness of breath, chest pain, severe headache and lung damage including pulmonary oedema. Effects may be delayed.

Toxicity data:
Oral (rat) LD_{50} = 350mg/kg
Eyes (rabbit) = severe irritant.

Respiratory or skin sensitisation: No information available.

HamChem Ltd, 75 Ruffell Road, Hamilton, New Zealand. Phone: 07-974-4971 Email: info@hamchem.nz Web: www.hamchem.nz

Chronic effects: Chronic exposure to ammonia may cause chemical pneumonitis and kidney damage.

Mutagenicity: No information available.

Carcinogenicity: Not listed as carcinogenic according to the International Agency for Research on Cancer (IARC).

Reproductive toxicity: No information available.

Specific Target Organ Toxicity (STOT) - single exposure: May cause respiratory irritation.

Specific Target Organ Toxicity (STOT) - single exposure: May cause respiratory irritation.

Aspiration hazard: No information available.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

Persistence/degradability: The material is biodegradable.

Bio accumulative potential: Does not bioaccumulate.

Aquatic toxicity: Toxic to aquatic organisms. 48hr LC50 (Daphnia magna): 0.66 mg/L 96hr LC50 (rainbow trout): 0.53 mg/L (for ammonia) (2)

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal methods: Refer to local government authority for disposal recommendations. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14 TRANSPORT INFORMATION

UN Number:	2672
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
Dangerous Goods Class:	8
Subsidiary Risk:	N/A
Packing group:	III
Hazchem Code:	2R

SECTION 15 REGULATORY INFORMATION

HSNO Classifications: 8.1A, 6.1D, 8.2C, 8.3A, 9.1A
EPA Approval Number: HSR001526

SECTION 16 OTHER INFORMATION

End of SDS.