



SAFETY DATA SHEET

AMMONIA SOLUTION STRONG

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY:

PRODUCT NAME: AMMONIA SOLUTION STRONG
CHEMICAL NAME 2: AMMONIUM HYDROXIDE,
PART No.: RM016
SYNONYMS, TRADE NAMES: AQUEOUS AMMONIA
SUPPLIER: J M Loveridge plc
Southbrook Road, Southampton
Hampshire
SO15 1BH
Tel: 023 8022 2008
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2. COMPOSITION/INFORMATION ON INGREDIENTS:

EU INDEX No.: 007-001-01-2
EEC (EINECS) No. 215-647-6
CAS No.: 1336-21-6
COMPOSITION COMMENTS: Contains ammonia @ 30 - 33%.

3. HAZARDS IDENTIFICATION:

Causes burns. Very toxic to aquatic organisms.

4. FIRST AID MEASURES:

GENERAL: IN ALL CASES OF DOUBT OR WHEN SYMPTOMS PERSIST, ALWAYS SEEK MEDICAL ATTENTION

INHALATION: Move affected person to fresh air. If recovery not rapid, seek medical attention. If breathing stops, provide artificial respiration. Keep affected person warm and at rest.

INGESTION: Only when conscious, rinse mouth with plenty of water and give plenty of water to drink - (approx 500ml). DO NOT INDUCE VOMITING. In case of spontaneous vomiting, be sure that vomit can freely drain because of danger of suffocation. Keep patient at rest and obtain medical attention.

SKIN: Remove affected person from source of contamination. Remove contaminated clothing. Wash affected area with plenty of soap and water. Obtain medical attention. Launder clothing before re-use.

EYES: Rinse immediately with plenty of water for at least 5 minutes while lifting the eye lids.
Seek medical attention. Continue to rinse.
Damage to eyes may not become apparent until several days after exposure.

5. FIRE FIGHTING MEASURES:

EXTINGUISHING MEDIA: Water spray, fog or mist, carbon dioxide (CO₂), alcohol resistant foam, dry chemicals, sand, dolomite etc.

SPECIAL FIRE FIGHTING PROCEDURES: Take measures to retain water used for extinguishing. Do not release contaminated water into drains, soil and surface water. Dispose of contaminated water and soil according to local regulations. If risk of water pollution occurs, notify appropriate authorities.

UNUSUAL FIRE & EXPLOSION HAZARDS: May explode in a fire. May develop highly toxic or corrosive fumes if heated. May ignite other combustible materials.

HAZARDOUS COMBUSTION PRODUCTS: Toxic or corrosive vapours may be released in fire situation. (oxides of nitrogen, ammonia gas).

PROTECTIVE MEASURES IN FIRE: Fire fighters should wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES:

PERSONAL PRECAUTION IN SPILL: Avoid direct contact with skin, eyes and clothing. Do not breathe vapour or fumes.
Wear appropriate protective clothing.

Ventilate area to dispel residual vapour or fumes.

PRECAUTIONS TO PROTECT ENVIRONMENT: Prevent material from entering drains or water courses. Advise the Environment Agency or relevant local authority if contamination of soil or water systems occurs.

SPILL CLEANUP METHODS: Dilute with copious amounts of water and neutralise with 6 molar Hydrochloric acid. Take-up spillage with absorbent, inert material and place in a suitable and closable labelled container for recovery or disposal. Wash the area clean with water and detergent, observing environmental requirements.
Absorb small quantities with paper towels or other inert material and allow to evaporate in safe place (fume hood/cupboard).

7. HANDLING AND STORAGE:

USAGE PRECAUTIONS: **HANDLING** - Product should be used in accordance with good industrial principles for handling and storing of hazardous chemicals.
Ensure good ventilation and local exhaust extraction in work place. Avoid vapour inhalation, skin and eye contact. Open containers carefully: Risk of pressure build up.

STORAGE PRECAUTIONS: Avoid direct sunlight.
Store in a cool, dry, well ventilated place, in securely closed original container.

STORAGE CRITERIA: Corrosive storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION:

INGREDIENT NAME:	CAS No.:	STD	LT EXP 8 Hrs	ST EXP 15 Min
AMMONIA SOLUTION STRONG	1336-21-6	OES	35 ppm	25 ppm

INGREDIENT COMMENTS:	Refer to the current edition of HSE Guidance Note EH 40/200* for occupational exposure limits; - listed as ammonia, anhydrous.
PROCESS CONDITIONS:	Use engineering controls to maintain airborne concentration below OEL.
VENTILATION:	Work in a fume cupboard or use local exhaust ventilation. Respiratory protection required in insufficiently ventilated working areas.
RESPIRATORS:	For short periods of work, a suitable RPE fitted with a combination charcoal or organic vapour cartridge is recommended. Self-contained breathing apparatus should be used where exposure to high concentrations is likely.
PROTECTIVE GLOVES:	Use imperious gloves made of butyl rubber or polyethylene.
EYE PROTECTION:	Approved chemical safety goggles or face protection.
OTHER PROTECTION:	Wear personal protective equipment appropriate to the quantity of material handled. Sleeves. Closed impervious footwear. Apron.
HYGIENIC WORK PRACTICES:	SKIN PROTECTION - apply barrier cream to hands and exposed skin. Promptly remove contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE:	Clear colourless liquid.		
ODOUR/TASTE:	Pungent. Suffocating. Irritating.		
DENSITY/SPECIFIC GRAVITY (g/ml):	~ 0.9	Temperature (°C):	20
VAPOUR DENSITY (air=1):	0.6		
VAPOUR PRESSURE:	760 mmHg	Temperature (°C):	20
pH-VALUE, CONC. SOLUTION:	~ 14		
SOLUBILITY DESCRIPTION:	Very soluble in water.		
ODOUR THRESHOLD, LOWER:	5 ppm		
ODOUR THRESHOLD, UPPER:	ppm		
FLAMMABILITY LIMIT - LOWER (%):	16		
FLAMMABILITY LIMIT - UPPER (%):	25		

10. STABILITY AND REACTIVITY:

STABILITY:	Stable under normal conditions of use. However will lose strength over period of time.
CONDITIONS TO AVOID:	Avoid high temperatures.
HAZARDOUS POLYMERIZATION:	Hazardous reactions - explosive reaction with free chlorine. Violent reactions with acids.
MATERIALS TO AVOID:	Avoid oxidising agents, acids, iodine, various metals (copper, zinc, tin and metal alloys), chlorine and hypochlorites.
HAZARDOUS DECOMP. PRODUCTS:	Thermal decomposition or burning may release toxic and corrosive oxides of nitrogen and ammonia.

11. TOXICOLOGICAL INFORMATION:

Toxicological data	LC50. Inhalation. Rat. 1.4 mg/l
TOXIC DOSE - LD 50:	350 mg/kg (oral rat)
HEALTH HAZARDS, GENERAL:	Vapour will irritate the membranes of nose, throat, lungs and eyes. Liquid or vapour may cause severe eye damage.
INHALATION:	Extremely irritating to mucous membranes and respiratory system. Inhalation of high concentrations can damage tissues of the respiratory system.
INGESTION:	May cause burns to mucous membranes, throat and stomach.
SKIN:	Corrosive to skin. Caustic effect, burns, necrosis.
EYES:	Corrosive to eyes. Risk of blindness! Full effects can be delayed for several days.
MEDICAL SYMPTOMS:	Inhalation symptoms may include coughing, bronchitis, pulmonary oedema. Symptoms can be delayed. Ingestion symptoms may include gastric pain, nausea, bloody vomiting, collapse, shock, loss of consciousness.

12. ECOLOGICAL INFORMATION:

Ecotoxicological data	LC50 24 hours Daphnia magna - 60 mg/l LC50 96 hours (various species) - < 1 mg/l
ECOLOGICAL INFORMATION:	Very toxic to aquatic organisms. Avoid release to the environment. Prevent contamination of soil, drains or surface water, use appropriate containment method to avoid environmental contamination.
MOBILITY:	Soluble in water.
BIO ACCUMULATION:	Not expected to bio-accumulate.
DEGRADABILITY:	Readily biodegradable.
ACUTE FISH TOXICITY:	Fatal to aquatic life due to pH shift. Caustic even in dilute form.

13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHODS:	This material and/or its container must be disposed of as hazardous waste according to Special Waste Regulations 1996 or according to local regulations, in compliance with Duty of Care Regulations and Special Waste Regulations.
WASTE CLASS:	WASTE CODE: 0705** HAZARDOUS PROPERTY: H8; H14

14. TRANSPORT INFORMATION:

UK ROAD PACK GR.:	III
ADR CLASS No.:	8
ADR CLASS:	Class 8: Corrosive substances.

ADR ITEM No.: 43°(c)
HAZARD No. (ADR): 80 Corrosive or slightly corrosive substance.
ADR MARGINAL: 2801
ADR LABEL No.: 8
HAZCHEM CODE: 2R
PROPER SHIPPING NAME I: AMMONIA SOLUTION
UN No. SEA: UN 2672
IMDG CLASS: 8
IMDG PAGE No.: 8111
IMDG PACK GR.: III
MARINE POLLUTANT: No.
UN No., AIR: UN-ID 2672
ICAO CLASS: 8
AIR PACK GR.: III

15. REGULATORY INFORMATION:

LABEL FOR SUPPLY:



RISK PHRASES: R-34 Causes burns.
R-50 Very toxic to aquatic organisms.

SAFETY PHRASES: S-1/2 Keep locked up and out of the reach of children.
S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S-36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S-61 Avoid release to the environment. Refer to special instructions/ Safety Data Sheets.

UK REGULATORY REFERENCES: Classification, Packaging and Labelling Regulations 1984. Chemicals (Hazard Information & Packaging) Regulations 1993.

16. OTHER INFORMATION:

INFORMATION SOURCES: This product has been classified in accordance with CHIP3 regulations.

REVISION COMMENTS: Edition 01; Revised item(s):

ISSUED BY: MK

SDS No.: 017

DATE: 12/07/02

DISCLAIMER: The foregoing data has been compiled for safety information only and does not form part of any selling specification. Information contained in this Data Sheet is to the best of JMLs knowledge correct at the time of publication. Customers should always satisfy themselves, that the product which they have selected is entirely suitable for their purpose under their conditions of use and in compliance with current regulations. For any further information, please contact the supplier.