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MATERIAL SAFETY DATA SHEET (MSDS)

AMMONIA SOLUTION AR ABT 25%

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : AMMONIA SOLUTION AR ABT 25%

Product code : SM0050902500

Identification of the product : Ammonia solution
CAS No :1336-21-6
EC No :215-647-6
Annex No :007-001-01-2

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification : SUVCHEM
Chaitanya Tower, 2nd Floor, Office # 206,
Siddharth Nagar, S.V. Road,
Goregaon (West), Mumbai - 400062,
Maharashtra, India.
Contact: +91 22 28725393 / 94 / 95
Email ID: info@suvchem.com/care@suvchem.com

1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [Office hours]

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : C; R34
N; R50

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Serious eye damage - Category 1 - Danger (CLP : Eye Dam. 1) H318
Skin corrosion - Category 1B - Danger (CLP : Skin Corr. 1B) H314

Environmental hazards : Hazardous to the aquatic environment - Acute hazard - Category 1 - Warning (CLP : Aquatic Acute 1) H400

2.2. Label elements

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2. Hazards identification -DSD (continued)
Labelling EC 67/548 or EC 1999/45
Symbol(s)

Symbol(s)

: C : Corrosive
 N : Dangerous for the environment

R Phrase(s)

: R34 : Causes burns.
 R50 : Very toxic to aquatic organisms.

S Phrase(s)

: S1/2 : Keep locked up and out of reach of children.
 S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.
 S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).
 S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contains

: Ammonia solution

Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms

Signal words

: Danger

Hazard statements

: H302 : Harmful if swallowed
 H314 : Causes severe skin burns and eye damage.

Precautionary statements

H335 : May cause respiratory irritation.
 H400 : Very toxic to aquatic life.

• General

: P102: Keep out of reach of children.

P103: Read label before use.

• Prevention

P101: If medical advice is needed, have product container or label at hand.

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

P260: Do not breathe dust, fume, gas, mist, vapours, spray.

P273: Avoid release to the environment.

• Response

: P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

P391: Collect spillage.

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

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

P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.

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2. Hazards identification -DSD (continued)

- **Storage** : P405: Store locked up.
 - **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
- Contains** : Ammonia solution

2.3. Other hazards

- Other hazards** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients

Substance / Preparation : Ammonia solution
CAS No :1336-21-6
EC No :215-647-6
Annex No :007-001-01-2
Substance.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Ammonia solution	25-50 %	1336-21-6	215-647-6	007-001-01-2	----	C; R34 N; R50 ----- Skin Corr. 1B _ H314 Eye Dam 1 _ R318 Aquatic Acute 1 _ H400

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures

4.1. Description of first aid measures

- Inhalation** : Immediately call a POISON CENTER or doctor. Remove to fresh air and keep at rest in a position comfortable for breathing.
- Skin contact** : Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Immediately call a POISON CENTER or doctor.
- Eye contact** : Immediately call a POISON CENTER or doctor. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.
- Ingestion** : Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Rinse mouth.

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

- Symptoms relating to use** : Causes severe skin burns and eye damage.
Causes serious eye damage.

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

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4. First aid measures (continued)

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures
5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.
Surrounding fires : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.
 Thermal decomposition generates : Corrosive vapours.

5.3. Advice for fire-fighters

Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.
Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection.
 Ventilate area.
For non-emergency personnel : Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.
 Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Clean up methods : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

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6. Accidental release measures (continued)

See section 8. Exposure controls/personal protection

7. Handling and storage
7.1. Precautions for safe handling

Handling : Wash contaminated clothing before reuse. Wash thoroughly after handling. Do not breathe dust, fume, gas, mist, vapours, spray.

Technical protective measures : Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

Storage regulation : Comply with applicable regulations.

Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Specific end use(s) : None.

8. Exposure controls/personal protection
8.1. Exposure controls

Personal protection : Avoid all unnecessary exposure.

- **Respiratory protection** : Wear approved mask.
- **Hand protection** : Wear protective gloves.
- **Skin protection** : Wear suitable protective clothing.
- **Eye protection** : Chemical goggles or face shield.
- **Others** : When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits : No data available.

9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state at 20 °C : Liquid.

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9. Physical and chemical properties (continued)

Colour	: Clear Colorless
Odour	: Ammonia odour
Odour threshold	: No data available.
pH value	: No data available.
Melting point [°C]	: -60 °C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: 6510C
Flammability (solid, gas)	: N/A
Flash point [°C]	: N/A
Boiling point [°C]	: 38 - 100 °C
Initial boiling point [°C]	: 38°C
Final boiling point [°C]	: 100 °C
Evaporation rate	: N/A
Vapour pressure [20°C]	: 153 hPa at 20 °C
Vapour pressure mm/Hg	: N/A
Vapour density	: 1,21
Density [g/cm ³]	: 0,9
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Infinitely soluble
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: 11.7
Viscosity at 40°C [mm ² /s]	: N/A

9.2. Other information

Explosive properties	: N/A
Explosion limits - upper [%]	: 27%
Explosion limits - lower [%]	: 16%
Oxidising properties	: No data available.

10. Stability and reactivity
10.1. Reactivity.

Reactivity	: Not established.
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10.2. Chemical stability.

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10. Stability and reactivity (continued)

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.
Thermal decomposition generates : Corrosive vapours.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity

- **Inhalation** : Based on available data, the classification criteria are not met.
- **Dermal** : Based on available data, the classification criteria are not met.
- **Ingestion** : Based on available data, the classification criteria are not met.

Corrosion : Causes severe skin burns and eye damage.
Causes serious eye damage.

Irritation : Based on available data, the classification criteria are not met.

Sensitization : Based on available data, the classification criteria are not met.

Mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : Based on available data, the classification criteria are not met.

Toxic for reproduction : Based on available data, the classification criteria are not met.

STOT-single exposure : Based on available data, the classification criteria are not met.

STOT-repeated exposure : Based on available data, the classification criteria are not met.

Aspiration hazard : Based on available data, the classification criteria are not met.

12. Ecological information

12.1. Toxicity.

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12. Ecological information (continued)

Toxicity information : Very toxic to aquatic life.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions : Avoid release to the environment.

13. Disposal considerations
13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

14. Transport information
14.1. Land transport (ADR-RID)

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

UN N° : 2672

H.I. nr : 80

ADR - Class : 8

Labelling - Transport : 8 : Corrosive substance.

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14. Transport information (continued)



ADR - Classification code	: C5 C5 C5
ADR - Group	: III
ADR - Packing instructions	: P001 R001 LP001
ADR - Limited Quantity	: 5 L
ADR - Tunnel code	: E : Passage forbidden through tunnels of category E.



14.2. Sea transport (IMDG) [English only]

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
UN N°	: 2672
IMO-IMDG - Class or division	: 8 : Corrosive substance.
IMO-IMDG - Packing group	: III
IMO-IMDG - Packing instructions	: P001 LP01
IMO-IMDG - Limited quantities	: 5 L
IMO-IMDG - Marine pollution	: Yes
EMS-Nr	: F-A S-B

14.3. Air transport (ICAO-IATA) [English only]

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
UN N°	: 2672
IATA - Class or division	: 8 : Corrosive substance.
IATA - Packing group	: III
IATA - Passenger and Cargo Aircraft	: ALLOWED
- Passenger and Cargo - Packing instruction	: 852
- Passenger and Cargo - Maximum Quantity/Packing	: 5 L
IATA - Cargo only	: ALLOWED

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14. Transport information (continued)

- Cargo only - Packing instruction	: 856
- Cargo only - Maximum Quantity/ Packing	: 60 L
IATA - Limited Quantities	: 1 L
ERG-Nr	: 8L

15. Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Safety, health and environmental regulations/legislation specific for the substance or mixture	: Ensure all national/local regulations are observed.
REACH Restrictions - Annex XVII	: The components of this product are not subject to restrictions.
REACH Authorisation - Annex XIV	: The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment	: It has not been carried out.
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16. Other information

Revision	: Revision - See : *
Abbreviations and acronyms	: PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative
Sources of key data used	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
List of relevant R phrases (heading 3)	: R34 : Causes burns. R50 : Very toxic to aquatic organisms.
List of full text of H-statements in section 3	: H314 : Causes severe skin burns and eye damage. H335 : May cause respiratory irritation. H400 : Very toxic to aquatic life.
Further information	: None.

MATERIAL SAFETY DATA SHEET (MSDS)

AMMONIA SOLUTION AR ABT 25%

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

DISCLAIMER:

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- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

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