


<b>Material Safety Data Sheet</b>	
<b>AMMONIA SOLUTION 25% AR</b>	<b>VERSION : 03</b> <b>DATE OF ISSUE : 31-01-2022</b> <b>SUPERSEDES : 02</b>
<b>Product Code : 21400</b>	<b>Page 1 of 9</b>

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

### **1.1. Product identifier**

**Trade name** : AMMONIA SOLUTION 25% AR  
**Product code** : 21400  
**Identification of the product** : Ammonia solution  
**CAS No** : 1336-21-6

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

**Identified uses** : Reagent for analysis, Chemical production

### **1.3. Details of the supplier of the safety data sheet**

**Company identification** : MOLYCHEM  
 Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor,  
 Mumbai – 400 002 (INDIA)  
 Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.  
 Email : [info@molychem.net](mailto:info@molychem.net)  
 Works: Plot No. B/9, Badlapur M.I.D.C., OPP.Shobhavat  
 Textile Co.,Kulgaon, Badlapur (E), Dist.-Thane-421 503.

### **1.4. Emergency telephone number**

**Emergency number** : +91 22 4066 8111 (10:00am - 6:00 pm).

## **2. Hazards identification -DSD**

### **2.1. Classification of the substance or mixture**

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

Skin corrosion (Sub-category 1B), H314  
 Serious eye damage (Category 1), H318  
 Short-term (acute) aquatic hazard (Category 1), H400  
 Long-term (chronic) aquatic hazard (Category 2), H411

### **2.2. Label elements**

**Labelling EC 67/548 or EC 1999/45**

**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.

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S7 : Keep container tightly closed.  
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.

### Labelling Regulation EC 1272/2008 (CLP)

#### Hazard pictograms



**Signal words :**

Danger

**Hazard statements :**

H314 : Causes severe skin burns and eye damage.  
H335 : May cause respiratory irritation.  
H410 : Very toxic to aquatic life with long lasting effects

#### Precautionary statements

P261 : Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P271 : Use only outdoors or in a well-ventilated area.  
P273 : Avoid release to the environment.  
P280 : Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P303 + P361 + P353 : IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard statements : none


#### 2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 3. Composition/information on ingredients

#### 3.2 Mixtures Component

Formula :  $\text{H}_3\text{N}$

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Molecular weight : 17.03 g/mol  
CAS-No. : 7664-41-7

#### **4. First aid measures**

##### **4.1. Description of first aid measures**

###### **General advice**

First aiders need to protect themselves.

###### **If inhaled**

After inhalation: fresh air.

###### **In case of skin contact**

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.

###### **In case of eye contact**

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

###### **If swallowed**

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

##### **4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

#### **5. Fire-fighting measures**

##### **5.1. Extinguishing media**

###### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

###### **Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given

##### **5.2. Special hazards arising from the substance or mixture**

Nitrogen oxides (NO<sub>x</sub>)


Not combustible.

Ammonia solution itself is not flammable, but can form an ignitable ammonia/air-mixture by outgassing.

Ambient fire may liberate hazardous vapours.

Fire may cause evolution of : nitrogen oxides

##### **5.3. Advice for fire-fighters**

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Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

#### **5.4 Further information**

Cool closed containers exposed to fire with water spray. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

### **6. Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

#### **6.2 Environmental precautions**

Do not empty into drains.

#### **6.3. Methods and material for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g. Chemisorb® OH<sup>-</sup>, Merck Art. No. 101596). Dispose of properly. Clean up affected area.

#### **6.4 Reference to other sections**

For disposal see section 13.

### **7. Handling and storage**

#### **7.1. Precautions for safe handling**

##### **Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

#### **7.2. Conditions for safe storage, including any incompatibilities**

##### **Storage conditions**

No metal or light-weight-metal containers. Tightly closed.

##### **Storage class**

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

#### **7.3. Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated


### **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.

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**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

a) Physical state	liquid
b) Color	colorless
c) Odor	stinging
d) Melting point/freezing point	No data available
e) Initial boiling point and boiling range	37.7 °C at 1.013 hPa
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	Upper explosion limit: 33.6%(V) Lower explosion limit: 15.4%(V)
h) Flash point	No data available
i) Autoignition temperature	No data available
j) Decomposition temperature	No data available
k) pH	at 20 °C strongly alkaline
l) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m) Water solubility	at 20 °C soluble
n) Partition coefficient: n-octanol/water	Not applicable for inorganic substances
o) Vapor pressure	483 hPa at 20 °C
p) Density	0.91 g/cm <sup>3</sup> at 20 °C
Relative density	No data available
q) Relative vapor density	No data available
r) Particle characteristics	No data available
s) Explosive properties	No data available
t) Oxidizing properties	none

### 9.2. Other information

No data available

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## **10. Stability and reactivity**

### **10.1. Reactivity**

No data available

### **10.2. Chemical stability**

Ammonia solution itself is not flammable, but can form an ignitable ammonia/air-mixture by outgassing.

### **10.3. Possibility of hazardous reactions**

No dangerous reactions known under normal conditions of use.

### **10.4. Conditions to avoid**

Heating.

### **10.5. Incompatible materials**

Aluminum, Lead, Nickel, silver, Zinc, Copper, metal alloys, various metals

### **10.6. Hazardous decomposition products**

In the event of fire: see section 5

## **11. Toxicological information**

### **11.1. Information on toxicological effects**

Acute toxicity	: Oral: Harmful if swallowed.
ATE CLP (oral)	500 mg/kg bodyweight
Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 11.7
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: 11.7
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

## **12. Ecological information**

### **12.1. Toxicity**


Ecology - general	: Very toxic to aquatic life.
Ecology – water	: Very toxic to aquatic life

### **12.2. Persistence - degradability**

Persistence and degradability : Rapidly degradable

### **12.3. Bioaccumulative potential**

No data available

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#### **12.4 Mobility in soil**

No data available

#### **12.5. Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### **12.6 Endocrine disrupting properties**

No data available

#### **12.7 Other adverse effects**

No additional information available

### **13. Disposal considerations**

#### **13.1. Waste treatment methods**

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

### **14. Transport information**

#### **14.1. UN number**

ADR/RID: 2672	IMDG: 2672	IATA: 2672
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#### **14.2. UN proper shipping name**

ADR/RID:	AMMONIA SOLUTION
IMDG:	AMMONIA SOLUTION
IATA:	Ammonia solution

#### **14.3. Transport hazard class(es)**

ADR/RID: 8	IMDG: 8	IATA: 8
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#### **14.4 Packaging group**

ADR/RID: III	IMDG: III	IATA: III
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#### **14.5 Environmental hazards**

ADR/RID: yes	IMDG Marine pollutant: yes	IATA: no
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#### **14.6 Special precautions for user**

Tunnel restriction code : (E)



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Further information : No data available

## **15. Regulatory information**

### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

#### **National legislation**

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances : ENVIRONMENTAL HAZARDS

### **15.2. Chemical Safety Assessment**

A Chemical Safety Assessment has been carried out for this substance.

## **16. Other information**

### **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

**Further information :** None.

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## **End of document**

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