

**SAFETY DATA SHEET**

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Revision. 03

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**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1. Product Identifier**

**Product Name:** Ammonia Solution  $\geq$  25%

**Synonyms, trade names:** Ammonium Hydroxide Solution, Aqueous Ammonia, Ammonia Solution 29.5%, Ammonia Solution 28%, Ammonia Solution 31.5%, Ammonia 31% Solution, Ammonia Solution 30%, Ammonia Solution 25%, Ammonia 885 33/34%

**REACH Registration Number:** 01-2119488876-14

**CAS Number:** 1336-21-6

**EU index no.:** 007-001-01-2

**EC No.:** 215-647-6

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

**Identified uses:** Industrial application; Catalyst; Water Treatment; Coolant; Food / Feed additive; Curing Agent; Textiles; Leather treatment; Leather and paper industry; Pharmaceuticals; Adhesive; Biocide; Cosmetics.

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

**Supplier:** Woburn Chemicals Ltd  
Chesney Wold,  
Bleak Hall,  
Milton Keynes,  
MK6 1LQ

**Telephone:** 01908 670081

**E-mail:** [enquiries@woburnchemicals.co.uk](mailto:enquiries@woburnchemicals.co.uk)

**1.4. Emergency telephone Number**

**Emergency contact number (office hours):** 01908 670081

**2. HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture**

|                                       |                               |                                       |
|---------------------------------------|-------------------------------|---------------------------------------|
| <b>Classification (EC 1272/2008):</b> | Physical and Chemical Hazards | Not classified.                       |
|                                       | Human health                  | Skin Corr. 1B - H314;STOT SE 3 - H335 |
|                                       | Environment                   | Aquatic Acute 1 - H400                |

**Classification (67/548/EEC)** C;R34. N;R50.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**2.2. Label Elements**

**EC No.** 215-647-6

Label In Accordance With (EC)  
No. 1272/2008



|                                  |  |   |
|----------------------------------|--|---|
| <b>Signal Word:</b>              | Danger   |   |
| <b>Hazard Statements</b>         | H314<br>H335<br>H400   | Causes severe skin burns and eye damage.<br>May cause respiratory irritation.<br>Very toxic to aquatic life.  |
| <b>Precautionary Statements:</b> | P271<br>P273<br>P280<br><br>P261<br>P301+330+331<br>P303+361+353<br><br>P304+340<br><br>P305+351+338<br><br>P363<br>P391<br><br>P403+233<br>P501 | Use only outdoors or in a well-ventilated area.<br>Avoid release to the environment.<br>Wear protective gloves/protective clothing/eye protection/face protection.<br>Avoid breathing vapours/spray.<br>IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.<br>IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.<br>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.<br>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>Wash contaminated clothing before reuse.<br>Collect spillage.<br>Store in a well-ventilated place. Keep container tightly closed.<br>Dispose of contents/container in accordance with the national regulations. |

### 2.3. Other Hazards

Not Classified as PBT/vPvB by current EU criteria.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

|                                   |   |
|-----------------------------------|---|
| <b>Product name</b>               | Ammonia Solution $\geq$ 25%                                     |
| <b>REACH Registration Number:</b> | 01-2119488876-14  |
| <b>CAS-No.</b>                    | 1336-21-6   |
| <b>EU Index No.</b>               | 007-001-01-2  |
| <b>EC No.</b>                     | 215-647-6   |
| <b>Composition Comments</b>       | The data shown are in accordance with the latest EC Directives. |

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

|                      |  |
|----------------------|--|
| <b>Inhalation:</b>   | Move the exposed person to fresh air at once. Get medical attention.   |
| <b>Ingestion:</b>    | Provide rest, warmth and fresh air. Immediately rinse mouth and drink plenty of water (200-300 ml). Get medical attention.   |
| <b>Skin contact:</b> | Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention immediately!   |
| <b>Eye contact:</b>  | Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention immediately. Continue to rinse. |

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

|                     |   |
|---------------------|---|
| <b>Inhalation:</b>  | Coughing, chest tightness, feeling of chest pressure.                           |
| <b>Ingestion</b>    | May cause chemical burns in mouth and throat.                                   |
| <b>Skin contact</b> | Prolonged skin contact may cause redness and irritation.                        |
| <b>Eye contact</b>  | Extreme irritation of eyes and mucous membranes, including burning and tearing. |

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

## 5. FIRE FIGHTING MEASURES

### 5.1. Extinguishing media

**Extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

### 5.2. Special Hazards arising from the substance or mixture

**Specific hazards:** Ammonia or amines. Oxides of: Nitrogen.

### 5.3. Advice for firefighters

**Protective equipment for firefighters:** Self contained breathing apparatus and full protective clothing must be worn in case of fire.

## 6. ACCIDENTAL RELEASE MEASURES

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

Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of spray mist and contact with skin and eyes. Provide adequate ventilation.

### 6.2. Environmental precautions

Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

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

Absorb with inert, damp, non-combustible material, then flush area with water. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

### 6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Avoid inhalation of vapours and spray mists. Provide good ventilation.

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

Keep containers tightly closed. Keep in original container.

**Storage Class:** Corrosive storage.

### 7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

|             |          |             |            |                  |                        |
|-------------|----------|-------------|------------|------------------|------------------------|
| <b>DNEL</b> | Industry | Dermal      | Short Term | Systemic Effects | 6.8 mg/kg/day          |
|             | Industry | Inhalation. | Short Term | Systemic Effects | 47.6 mg/m <sup>3</sup> |

|             |             |             |            |                  |                      |
|-------------|-------------|-------------|------------|------------------|----------------------|
|             | Industry    | Inhalation. | Short Term | Local Effects    | 36 mg/m <sup>3</sup> |
|             | Industry    | Dermal      | Long Term  | Systemic Effects | 6.8 mg/kg/day        |
|             | Industry    | Inhalation. | Long Term  | Local Effects    | 14 mg/m <sup>3</sup> |
| <b>PNEC</b> | Freshwater  | 0.0011      | mg/l       |                  |                      |
|             | Marinewater | 0.0011      | mg/l       |                  |                      |

## 8.2. Exposure Controls

### Protective equipment:



### Respiratory equipment:

If ventilation is insufficient, suitable respiratory protection must be provided.

### Hand protection:

Protective gloves are recommended.

### Eye protection:

Wear approved safety goggles.

### Other Protection

Wear rubber apron. Wear rubber footwear.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

|  |                         |
|--|-------------------------|
| <b>Appearance:</b>   | Clear liquid            |
| <b>Colour:</b>   | Colourless              |
| <b>Odour:</b>  | Pungent                 |
| <b>Solubility:</b>   | Soluble in water        |
| <b>Initial boiling point and boiling point range (°C):</b> | 20 - 38                 |
| <b>Melting Point (°C):</b>                                 | -55 - -100              |
| <b>Relative density:</b>                                   | 0.880 – 0.957           |
| <b>Vapour pressure:</b>                                    | 48700 – 100000 Pa @ 20C |
| <b>pH-value, Conc. solution:</b>                           | >13                     |
| <b>Viscosity:</b>  | 1.1 mPas @ 27C          |
| <b>Auto ignition temperature (°C):</b>                     | 651                     |
| <b>Flammability Limit - Lower(%)</b>                       | 16                      |
| <b>Flammability Limit - Upper(%)</b>                       | 27                      |
| <b>Partition Coefficient (N-Octanol/water)</b>             | log Pow<br>-1.14        |

### 9.2. Other information

Not determined.

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

No specific reactivity hazards associated with this product.

### 10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

### 10.3. Possibility of hazardous reactions

**Will react violently with:** Strong acids. Strong alkalis. Reducing agents.

### 10.4 Conditions to avoid

Avoid excessive heat for prolonged periods of time.

## 10.5. Incompatible materials

**Materials to avoid:** Strong acids. Copper. Zinc

## 10.6. Hazardous decomposition products

Ammonia or amines. Oxides of: Nitrogen.

# 11. TOXICOLOGICAL INFORMATION

## 11.1. Information on toxicological effects

### Acute toxicity:

**Acute Toxicity (Oral LD50)** 350 mg/kg Rat

### Reproductive toxicity:

**Reproductive toxicity-  
Fertility** Fertility: NOAEL 408 mg/kg/day

**Reproductive toxicity-  
Development** Developmental toxicity: NOAEL 100mg/kg/day

**Inhalation:** Vapours may irritate the respiratory system and cause coughing, asthmatic breathing and breathlessness.

**Ingestion:** Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.

**Skin contact:** Corrosive. Prolonged contact causes serious tissue damage.

**Eye contact:** Strongly corrosive. Causes severe burns and serious eye damage. Immediate first aid is imperative.

# 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** The product contains a substance which is very toxic to aquatic organisms.

## 12.1. Toxicity

**Acute Fish Toxicity:** Very toxic to aquatic organisms.

**Acute Toxicity - Fish:** LC50 96 hours 0.89 mg/l Freshwater fish

**Acute Toxicity - Aquatic  
Invertebrates:** EC50 96 hours 0.101 mg/l Daphnia magna

## 12.2 Persistence and degradability

**Degradability:** The product is biodegradable.

## 12.3 Bioaccumulative potential

**Bioaccumulative potential** The product is not bio accumulating.

**Partition coefficient:** log Pow – 1.14

## 12.4. Mobility In soil

**Mobility:** The product is soluble in water.

## 12.5. Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

## 12.6. Other adverse effects

Not determined.

### 13. DISPOSAL CONSIDERATIONS

**General information:** Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority. Do not puncture or incinerate even when empty.

#### 13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

### 14. TRANSPORT INFORMATION

**General:** Full protective clothing should be worn when handling this product.

#### 14.1. UN number

**UN Number Road:** 2672

**UN No. (IMDG):** 2672

**UN No. (ICAO):** 2672

#### 14.2. UN proper shipping name

**Proper Shipping Name:** AMMONIA SOLUTION

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

**ADR/RID/ADN Class:** 8

**ADR/RID/ADN Class:** Class 8: Corrosive substances.

**ADR Label No.** 8

**IMDG Class:** 8

**ICAO Class/Division:** 8

**Transport Labels:**



#### 14.4. Packing group

**ADR/RID/ADN Packing group:** III

**IMDG Packing group:** III

**ICAO Packing group:** III

#### 14.5. Environmental hazards

**Environmentally Hazardous:  
Substance/Marine Pollutant:**



#### 14.6 Special precautions for user

**EMS:** F-A, S-B

**Emergency Action Code:** 2R

**Hazard No. (ADR):** 80

**Tunnel Restriction Code:** (E)

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information required.

## 15. REGULATORY INFORMATION

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

|                                     |  |
|-------------------------------------|--|
| <b>Statutory instruments:</b>       | The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).   |
| <b>Approved code of practice:</b>   | Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.  |
| <b>Guidance notes:</b>              | CHIP for everyone HSG(108).  |
| <b>EU Legislation:</b>              | Regulation EC No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No. 1272/2008 of the European Parliament and the Council of 16 December 2008 on Classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006 with amendments. |
| <b>Water hazard classification:</b> | WGK2   |

### 15.2. Chemical Safety Assessment

A chemical safety assessment has been carried out.

**Inventory Information:** EINECS

## 16. OTHER INFORMATION

|                                   |                      |  |
|-----------------------------------|----------------------|--|
| <b>Risk Phrases In Full:</b>      | R34<br>R50           | Causes burns.<br>Very toxic to aquatic organisms.  |
| <b>Hazard Statements In Full:</b> | H314<br>H335<br>H400 | Causes severe skin burns and eye damage.<br>May cause respiratory irritation.<br>Very toxic to aquatic life. |
| <b>COMAH</b>                      | 9(I)                 |  |

This information is based on our present knowledge and is intended to describe our products from point of view of the safety requirements. It should not be construed as guaranteeing specific properties.  
The user must satisfy himself that the product is entirely suitable for his purpose.