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**Material Safety Data Sheet**

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<b>Product Name</b>	<b>Ammonia solution 0.91d</b>
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**Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identification:****Product Description:** Ammonia solution 0.91d**Synonyms:** NA**CAS-No:** 1336-21-6**EC-No.:** 215-647-6**Molecular Formula:** NH<sub>3</sub> (aq.)

**REACH Registration No:** A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

**1.2. Relevant identified uses of the substance or mixture and uses advised against:****Recommended Use:** Reagent for Analysis**1.3. Details of the supplier of the safety data sheet:**

- **Company** **Finar Limited**  
184-186/P, Chacharwadi Vasna,  
Sarkhej-Bavla Highway,  
Ta.: Sanand, Dist.: Ahmedabad,  
Email: [info@finarchemicals.com](mailto:info@finarchemicals.com)  
Web: [www.finarchemicals.com](http://www.finarchemicals.com)
- **E-Mail Address** [safety@finarchemicals.com](mailto:safety@finarchemicals.com); [info@finarchemicals.com](mailto:info@finarchemicals.com)

**1.4. Emergency Telephone Number:**

- For Emergency contact on: +91 - 2717 - 616 717

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

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity Oral (Category 4), H302

Skin Corrosion (Category 1B), H314

Serious Eye Damage (Category 1), H318

Specific target organ toxicity - Single exposure (Category 3), Respiratory system, H335

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 2), H411

Chronic aquatic toxicity, Category 3, H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2. Label Elements:****Labeling (REGULATION (EC) No 1272/2008)**

Hazard pictograms

**Signal word****Danger****Hazard statements**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H335 May cause respiratory irritation

H410 Very toxic to aquatic life with long lasting effects

H411 Toxic to aquatic life with long lasting effects

**Precautionary statements****Prevention**

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray

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- 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/ hearing protection  
Avoid release to the environment

### Response

- P302 + P361 + P353 IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water.
- P304 + P340 + P310 IF INHALD: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor
- 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 persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances: Ammonia solution

### 3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
Ammonia solution	1336-21-6	215-647-6	>= 25 - < 30 %

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures:

- General Advise**  
 Consult a physician. Show this material safety data sheet to the doctor in attendance.
- If inhaled**  
 If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- If case of skin contact**  
 Take off immediately all contaminated clothing and shoes. Wash off with soap and plenty of water.

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Consult a physician.

- **In case of eye contact**

Rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

- **If swallowed**

Make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralize.

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

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

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

No information Available

### **SECTION 5: FIREFIGHTING 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:**

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 firefighters:**

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.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, and consult an expert.

Advice for emergency responders: Protective equipment see section 8.

**6.2. Environmental precautions:**

Do not let product enter 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. Dispose of properly.

Clean up affected area.

**6.4. Reference to other sections:**

For disposal see Sections 13.

**SECTION 7: HANDLING AND STORAGE**

**7.1. Precautions for safe handling**

**Advice on Safe handling**

Observe label precautions.

**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**

Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Store away from the following materials: Acids. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, joint less and not absorbent.

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

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

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters**

Ingredients with workplace control parameters

**8.2. Exposure Controls:**

- **Appropriate Engineering Controls:**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal Protective Equipment:**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

- **Eye & Face Protection-**

Tightly fitting Safety Goggles.

- **Skin Protection -**

- **Hand Protection**

**Full Contact**

- Material : Butyl Rubber
- Minimum layer thickness : 0.7 mm
- Break through time : 480 min
- Material tested : Butoject® (KCL 898)

**Splash Contact**

- Material : Nitrile Rubber
- Minimum layer thickness : 0.40 mm
- Break through time : 240 min
- Material tested : Camatril® (KCL 730 / Aldrich Z677442, Size M)

- **Body Protection**

Protective Clothing

- **Respiratory Protection-**

Recommended Filter type: Filter type K

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The entrepreneur must ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Environmental Exposure Controls-** Do not empty into drains.

### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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

- **Appearance: Form:** Liquid  
**Color:** Colorless
- **Odour:** Strong Ammonia
- **pH:** 11.6 at 20 °C Strongly Alkaline
- **Melting Point:** -57.5°C
- **Boiling Point/Range:** 37.7 °C at 1.013 hPa
- **Vapor Pressure:** 483 hPa at 20 °C
- **Vapor Density:** No data available
- **Relative Density:** 0.903 g/cm<sup>3</sup> at 20 °C
- **Water Solubility:** At 20°C Soluble
- **Viscosity Dynamic:** No data available
- **Viscosity Kinematic:** No data available
- **Lower Explosive Limit:** 15.4 % (V)
- **Upper Explosive Limit:** 33.6 % (V)
- **Decomposition Temperature:** No data available
- **Volatility:** No data available
- **Bulk Density:** No data available
- **Partition coefficient n-octanol/water:** No data available
- **Flash Point:** No data available
- **Evaporation rate:** No data available
- **Autoignition Temperature:** No data available

#### **9.2. Other information:**

No data available

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**SECTION 10: STABILITY AND REACTIVITY****10.1. Reactivity:**

No data available

**10.2. Chemical stability:**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions:**

No data available

**10.4. Conditions to avoid:** Heating**10.5. Incompatible materials:**

Strong oxidizing agents

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

**10.6. Hazardous decomposition products:**Hazardous decomposition products formed under fire conditions. Nitrogen oxides (NO<sub>x</sub>)

In the event of fire: see section 5

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Mixture****Acute toxicity**

No data available

Symptoms: mucosal irritations, Cough, Shortness of breath, bronchitis, Possible damages:, damage of respiratory tract

**Skin corrosion/irritation**

Skin - Rabbit

Result: Severe irritations

Remarks: (29% solution) (RTECS)

Dermatitis Necrosis. Causes skin burns.

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Severe irritations

Remarks: (29% solution) (RTECS)



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Mixture causes serious eye damage. Risk of blindness!

### **Respiratory or skin sensitization**

No data available

### **Germ cell mutagenicity**

No data available

### **Carcinogenicity**

IARC: No ingredient of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### **Reproductive toxicity**

No data available

### **Specific target organ toxicity - single exposure**

Mixture may cause respiratory irritation - Respiratory system

Acute inhalation toxicity - Mucosal irritations, Cough, Shortness of breath, bronchitis,

Possible damages- Damage of respiratory tract

### **Specific target organ toxicity - repeated exposure**

No data available

### **Aspiration hazard**

No data available

## **11.2 Additional Information**

No data available

## **SECTION 12: ECOLOGICAL INFORMATION**

### **12.1. Toxicity:**

#### **Toxicity to fish:**

flow-through test LC50 - Pimephales promelas (fathead minnow) - 0,068 mg/l - 96 h

Remarks: (in analogy to similar products)

(ECHA)

The value is given in analogy to the following substances:

ammonium sulphate

#### **Toxicity daphnia and other aquatic invertebrates:**

static test LC50 - Daphnia magna (Water flea) - 101 mg/l – 48\h

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Remarks: (ECHA)

anhydrous

**12.2 Persistence and degradability:****Biodegradability**

No data available

**12.3 Bioaccumulate potential:**

No data available

**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 Other adverse effects**

Biological effects:

Harmful effect due to pH shift.

Forms toxic and corrosive mixtures with water even if diluted.

Discharge into the environment must be avoided.

No data available

## **SECTION 13: Disposal considerations**

**13.1 General Information:**

The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal Methods:**

Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work

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clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

### **SECTION 14: Transport information**

	<b>Land transport (ADR/RID)</b>	<b>Air transport (IATA)</b>	<b>Sea transport (IMDG)</b>
<b>14.1 UN Number</b>	2672	2672	2672
<b>14.2 Proper shipping name</b>	AMMONIA SOLUTION	Ammonia Solution	AMMONIA SOLUTION
<b>14.3 Class</b>	8	8	8
<b>14.4 Packing group</b>	III	III	III
<b>14.5 Environmentally hazardous</b>	Yes	No	Yes
<b>14.6 Special precautions for user</b>	No data available	No data available	No data available

### **SECTION 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. REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)

##### **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.

E1 – Environmental Hazards

#### **15.2 Chemical safety assessment**

For this product, a chemical safety assessment was not carried out

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**SECTION 16: Other information****Full text of H-Statements referred to under sections 2 and 3.**

- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.

**Training advice: -**

Provide adequate information, instruction and training for operators.

**References:** Not available

**Created:** 25/05/2021

**Disclaimer:**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Finar Limited be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Finar Limited has been advised of the possibility of such damages.