

# A-NAPHTHYLAMINE SOLUTION FOR DETERMINATION OF NITRATE REDUCTION BY BACTERIAL STRAINS MSDS

CAS-No.: MSDS

## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
:  
Product code : 4796F

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

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only

##### 1.2.2. Uses advised against

No additional information available

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

LOBA CHEMIE PVT.LTD.  
107 Wode House Road, Jehangir Villa, Colaba  
400005 Mumbai - INDIA  
T +91 22 6663 6663 - F +91 22 6663 6699  
[info@lobachemie.com](mailto:info@lobachemie.com) - [www.lobachemie.com](http://www.lobachemie.com)

#### 1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, H314  
Category 1

Full text of H statements : see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

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### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP) :

P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER/doctor

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name                   | Product identifier  | %          | Classification according to Regulation (EC) No. 1272/2008 [CLP]                                  |
|------------------------|---|------------|--|
| WATER AR               | (CAS-No.) 7732-18-5<br>(EC-No.) 231-791-2                               | 70 - 75    | Not classified   |
| ACETIC ACID GLACIAL AR | (CAS-No.) 64-19-7<br>(EC-No.) 200-580-7<br>(EC Index-No.) 607-002-00-6  | 30 - 32    | Flam. Liq. 3, H226<br>Acute Tox. 4 (Inhalation), H332<br>Skin Corr. 1A, H314<br>Eye Dam. 1, H318 |
| 1-NAPHTHYLAMINE AR     | (CAS-No.) 134-32-7<br>(EC-No.) 205-138-7<br>(EC Index-No.) 612-020-00-2 | $\geq$ 0.5 | Acute Tox. 4 (Oral), H302<br>Carc. 1A, H350<br>Aquatic Chronic 2, H411                           |

Full text of H-statements: see section 16

# **α-NAPHTHYLAMINE SOLUTION FOR DETERMINATION OF NITRATE REDUCTION BY BACTERIAL STRAINS**

## Safety Data Sheet

### **SECTION 4: First aid measures**

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

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
- First-aid measures after skin contact : Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth out with water. If you feel unwell, seek medical advice.

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

- Symptoms/effects : Causes severe skin burns and eye damage.

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

Treat symptomatically.

### **SECTION 5: Firefighting measures**

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

- Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>).
- Unsuitable extinguishing media : Do not use a heavy water stream.

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

No additional information available

#### **5.3. Advice for firefighters**

- Protection during firefighting : Do not attempt to take action without suitable protective equipment.

### **SECTION 6: Accidental release measures**

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

##### **6.1.1. For non-emergency personnel**

- Emergency procedures : Avoid contact with skin, eyes and clothing.

##### **6.1.2. For emergency responders**

- Protective equipment : Use personal protective equipment as required.

#### **6.2. Environmental precautions**

Avoid release to the environment.

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

- Methods for cleaning up : Clean contaminated surfaces with an excess of water.

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

No additional information available

### **SECTION 7: Handling and storage**

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

- Precautions for safe handling : Avoid contact with skin and eyes.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

- Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

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

No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

|                          |                                      |
|--------------------------|--------------------------------------|
| Hand protection          | : Protective gloves                  |
| Eye protection           | : Chemical goggles or safety glasses |
| Skin and body protection | : Wear suitable protective clothing  |
| Respiratory protection   | : Wear respiratory protection.       |

### SECTION 9: Physical and chemical properties

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

|  |                         |
|--|-------------------------|
| Physical state                             | : Liquid                |
| Colour                                     | : light pink.           |
| Odour                                      | : characteristic odour. |
| Odour threshold                            | : No data available     |
| pH   | : No data available     |
| Relative evaporation rate (butylacetate=1) | : No data available     |
| Melting point                              | : No data available     |
| Freezing point                             | : No data available     |
| Boiling point                              | : No data available     |
| Flash point                                | : No data available     |
| Auto-ignition temperature                  | : No data available     |
| Decomposition temperature                  | : No data available     |
| Flammability (solid, gas)                  | : No data available     |
| Vapour pressure                            | : No data available     |
| Relative vapour density at 20 °C           | : No data available     |
| Relative density                           | : No data available     |
| Solubility                                 | : No data available     |
| Log Pow                                    | : No data available     |
| Viscosity, kinematic                       | : No data available     |
| Viscosity, dynamic                         | : No data available     |
| Explosive properties                       | : No data available     |

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Oxidising properties : No data available

Explosive limits : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Direct sunlight.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Serious eye damage, category 1, implicit

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

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### 12.2. Persistence and degradability

#### 1-NAPHTHYLAMINE AR (134-32-7)

|                               |   |
|-------------------------------|---|
| Persistence and degradability | May cause long-term adverse effects in the environment. |
|-------------------------------|---|

#### ACETIC ACID GLACIAL AR (64-19-7)

|                               |                  |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |
|-------------------------------|------------------|

### 12.3. Bioaccumulative potential

#### 1-NAPHTHYLAMINE AR (134-32-7)

|         |     |
|---------|-----|
| Log Pow | 2.1 |
|---------|-----|

#### ACETIC ACID GLACIAL AR (64-19-7)

|                           |                  |
|---------------------------|------------------|
| Log Pow                   | 0.17             |
| Bioaccumulative potential | Not established. |

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

No additional information available

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

|               |        |
|---------------|--------|
| UN-No. (ADR)  | : 2790 |
| UN-No. (IMDG) | : 2790 |
| UN-No. (IATA) | : 2790 |
| UN-No. (ADN)  | : 2790 |
| UN-No. (RID)  | : 2790 |

### 14.2. UN proper shipping name

|                                      |   |
|--------------------------------------|---|
| Proper Shipping Name (ADR)           | : ACETIC ACID SOLUTION                      |
| Proper Shipping Name (IMDG)          | : ACETIC ACID SOLUTION                      |
| Proper Shipping Name (IATA)          | : Acetic acid solution                      |
| Proper Shipping Name (ADN)           | : ACETIC ACID SOLUTION                      |
| Proper Shipping Name (RID)           | : ACETIC ACID SOLUTION                      |
| Transport document description (ADR) | : UN 2790 ACETIC ACID SOLUTION, 8, III, (E) |

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Transport document description (IMDG) : UN 2790 ACETIC ACID SOLUTION, 8, III  
Transport document description (IATA) : UN 2790 Acetic acid solution, 8, III  
Transport document description (ADN) : UN 2790 ACETIC ACID SOLUTION, 8, III  
Transport document description (RID) : UN 2790 ACETIC ACID SOLUTION, 8, III

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 8  
Danger labels (ADR) : 8



#### IMDG

Transport hazard class(es) (IMDG) : 8  
Danger labels (IMDG) : 8



#### IATA

Transport hazard class(es) (IATA) : 8  
Hazard labels (IATA) : 8



#### ADN

Transport hazard class(es) (ADN) : 8  
Danger labels (ADN) : 8



#### RID

Transport hazard class(es) (RID) : 8  
Danger labels (RID) : 8



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### 14.4. Packing group


|                      |       |
|----------------------|-------|
| Packing group (ADR)  | : III |
| Packing group (IMDG) | : III |
| Packing group (IATA) | : III |
| Packing group (ADN)  | : III |
| Packing group (RID)  | : III |

### 14.5. Environmental hazards

|                               |  |
|-------------------------------|--|
| Dangerous for the environment | : No                                     |
| Marine pollutant              | : No                                     |
| Other information             | : No supplementary information available |

### 14.6. Special precautions for user

#### - Overland transport

|   |   |
|---|---|
| Classification code (ADR)                                 | : C3  |
| Special provisions (ADR)                                  | : 597, 647  |
| Limited quantities (ADR)                                  | : 5I  |
| Excepted quantities (ADR)                                 | : E1  |
| Packing instructions (ADR)                                | : P001, IBC03, LP01, R001   |
| Mixed packing provisions (ADR)                            | : MP19  |
| Portable tank and bulk container instructions (ADR)       | : T4  |
| Portable tank and bulk container special provisions (ADR) | : TP1   |
| Tank code (ADR)   | : L4BN  |
| Vehicle for tank carriage                                 | : AT  |
| Transport category (ADR)                                  | : 3   |
| Special provisions for carriage - Packages (ADR)          | : V12   |
| Hazard identification number (Kemler No.)                 | : 80  |
| Orange plates   | :  |
| Tunnel restriction code (ADR)                             | : E   |
| EAC code  | : •2R   |

#### - Transport by sea

|                                    |   |
|------------------------------------|---|
| Packing instructions (IMDG)        | : P001, LP01  |
| IBC packing instructions (IMDG)    | : IBC03   |
| Tank instructions (IMDG)           | : T4  |
| Tank special provisions (IMDG)     | : TP1   |
| EmS-No. (Fire)                     | : F-A   |
| EmS-No. (Spillage)                 | : S-B   |
| Stowage category (IMDG)            | : A   |
| Properties and observations (IMDG) | : Colourless liquid with a pungent odour. Miscible with water. Corrosive to lead and most other metals. Corrosive to skin, eyes and mucous membranes. |

#### - Air transport

|  |        |
|--|--------|
| PCA Excepted quantities (IATA)               | : E1   |
| PCA Limited quantities (IATA)                | : Y841 |
| PCA limited quantity max net quantity (IATA) | : 1L   |



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|                                 |        |
|---------------------------------|--------|
| PCA packing instructions (IATA) | : 852  |
| PCA max net quantity (IATA)     | : 5L   |
| CAO packing instructions (IATA) | : 856  |
| CAO max net quantity (IATA)     | : 60L  |
| Special provisions (IATA)       | : A803 |
| ERG code (IATA)                 | : 8L   |

### **- Inland waterway transport**

|                                   |            |
|-----------------------------------|------------|
| Classification code (ADN)         | : C3       |
| Special provisions (ADN)          | : 597, 647 |
| Limited quantities (ADN)          | : 5 L      |
| Excepted quantities (ADN)         | : E1       |
| Carriage permitted (ADN)          | : T        |
| Equipment required (ADN)          | : PP, EP   |
| Number of blue cones/lights (ADN) | : 0        |

### **- Rail transport**

|   |                           |
|---|---------------------------|
| Classification code (RID)                                 | : C3                      |
| Special provisions (RID)                                  | : 597, 647                |
| Excepted quantities (RID)                                 | : E1                      |
| Packing instructions (RID)                                | : P001, IBC03, LP01, R001 |
| Mixed packing provisions (RID)                            | : MP19                    |
| Portable tank and bulk container instructions (RID)       | : T4                      |
| Portable tank and bulk container special provisions (RID) | : TP1                     |
| Tank codes for RID tanks (RID)                            | : L4BN                    |
| Transport category (RID)                                  | : 3                       |
| Special provisions for carriage – Packages (RID)          | : W12                     |
| Colis express (express parcels) (RID)                     | : CE8                     |
| Hazard identification number (RID)                        | : 80                      |

### **14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## **SECTION 15: Regulatory information**

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

#### **15.1.1. EU-Regulations**

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### **15.1.2. National regulations**

#### **Germany**

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Reference to AwSV : Water hazard class (WGK) 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

### Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

### Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product  
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

## 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of H- and EUH-statements:

|                           |   |
|---------------------------|---|
| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4                               |
| Acute Tox. 4 (Oral)       | Acute toxicity (oral), Category 4                                 |
| Aquatic Chronic 2         | Hazardous to the aquatic environment — Chronic Hazard, Category 2 |
| Carc. 1A                  | Carcinogenicity, Category 1A                                      |
| Eye Dam. 1                | Serious eye damage/eye irritation, Category 1                     |
| Flam. Liq. 3              | Flammable liquids, Category 3                                     |
| Skin Corr. 1              | Skin corrosion/irritation, Category 1                             |
| Skin Corr. 1A             | Skin corrosion/irritation, Category 1A                            |
| H226                      | Flammable liquid and vapour.                                      |
| H302                      | Harmful if swallowed.   |
| H314                      | Causes severe skin burns and eye damage.                          |
| H318                      | Causes serious eye damage.  |
| H332                      | Harmful if inhaled.   |
| H350                      | May cause cancer.   |
| H411                      | Toxic to aquatic life with long lasting effects.                  |

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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*