

# ALUMINIUM (AL) ICP STANDARD SOLUTION 1 GM/L IN DILUTE HNO<sub>3</sub> TRACEABLE TO NIST 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 : I100N

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

##### 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, H315  
Category 2  
Serious eye damage/eye H319  
irritation, Category 2

Full text of classification categories and 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) :



GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H315 - Causes skin irritation  
H319 - Causes serious eye irritation

Precautionary statements (CLP) :

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

| Name                                | Product identifier  | %       | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|-------------------------------------|---|---------|---|
| Water                               | (CAS No) 7732-18-5<br>(EC no) 231-791-2                               | 75 - 99 | Not classified  |
| ALUMINIUM NITRATE (NONAHYDRATE) 98% | (CAS No) 7784-27-2  | 1 - 5   | Ox. Sol. 1, H271<br>Eye Irrit. 2, H319<br>Skin Irrit. 2, H315   |
| Nitric acid                         | (CAS No) 7697-37-2<br>(EC no) 231-714-2<br>(EC index no) 007-004-00-1 | 1 - 5   | Ox. Liq. 1, H271<br>Skin Corr. 1A, H314                         |

Full text of H-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Wash with plenty of soap and water. Get medical advice/attention.

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|                                      |  |
|--------------------------------------|--|
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. |
| First-aid measures after ingestion   | : Rinse mouth. Get medical advice/attention.   |

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

|                                      |                                  |
|--------------------------------------|----------------------------------|
| Symptoms/injuries after skin contact | : Causes skin irritation.        |
| Symptoms/injuries after eye contact  | : Causes serious eye irritation. |

### 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   | : Carbon dioxide. Dry powder. Foam. Water spray. |
| 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 enter fire area without proper protective equipment, including respiratory protection. |
|--------------------------------|---|

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

|                      |                                   |
|----------------------|-----------------------------------|
| Emergency procedures | : Evacuate unnecessary personnel. |
|----------------------|-----------------------------------|

#### 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 | : Collect spillage. On land, sweep or shovel into suitable containers. |
|-------------------------|--|

### 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. Do not breathe vapours.   |
| 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. Store in original container. |
|--------------------|---|

### 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                                     | : Clear colourless. |
| Odour                                      | : No data available |
| 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. Air contact.

### 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 skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

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### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 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)  | : 3264 |
| UN-No. (IMDG) | : 3264 |
| UN-No.(IATA)  | : 3264 |
| UN-No.(ADN)   | : 3264 |
| UN-No. (RID)  | : 3264 |

#### 14.2. UN proper shipping name

|                                       |   |
|---------------------------------------|---|
| Proper Shipping Name (ADR)            | : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.                                   |
| Proper Shipping Name (IMDG)           | : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.                                   |
| Proper Shipping Name (IATA)           | : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.                                   |
| Proper Shipping Name (ADN)            | : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.                                   |
| Proper Shipping Name (RID)            | : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.                                   |
| Transport document description (ADR)  | : UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, III, (E)              |
| Transport document description (IMDG) | : UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, III, MARINE POLLUTANT |
| Transport document description (IATA) | : UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, III                   |
| Transport document description (ADN)  | : UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, III                   |
| Transport document description (RID)  | : UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, III                   |

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### 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



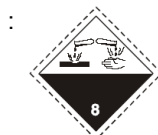
#### ADN

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



#### RID

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



### 14.4. Packing group

Packing group (ADR) : III  
Packing group (IMDG) : III  
Packing group (IATA) : III  
Packing group (ADN) : III

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Packing group (RID) : III

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : Yes (IMDG only)  
Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : C1  
Special provision (ADR) : 274  
Limited quantities (ADR) : 5L  
Excepted quantities (ADR) : E1  
Packing instructions (ADR) : P001, IBC03, LP01, R001  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T7  
Portable tank and bulk container special provisions (ADR) : TP1, TP28  
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 : 2X  
APP code : B

#### - Transport by sea

Special provision (IMDG) : 223, 274  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : P001, LP01  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T7  
Tank special provisions (IMDG) : TP1, TP28  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-B  
Stowage category (IMDG) : A  
Stowage and handling (IMDG) : SW2  
MFAG-No : 154

#### - Air transport

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y841  
PCA limited quantity max net quantity (IATA) : 1L  
PCA packing instructions (IATA) : 852



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|                                 |       |
|---------------------------------|-------|
| PCA max net quantity (IATA)     | : 5L  |
| CAO packing instructions (IATA) | : 856 |
| CAO max net quantity (IATA)     | : 60L |
| Special provision (IATA)        | : A3  |
| ERG code (IATA)                 | : 8L  |

### - Inland waterway transport

|                                   |          |
|-----------------------------------|----------|
| Classification code (ADN)         | : C1     |
| Special provisions (ADN)          | : 274    |
| 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)                                 | : C1                      |
| Special provision (RID)                                   | : 274                     |
| Limited quantities (RID)                                  | : 5L                      |
| Excepted quantities (RID)                                 | : E1                      |
| Packing instructions (RID)                                | : P001, IBC03, LP01, R001 |
| Mixed packing provisions (RID)                            | : MP19                    |
| Portable tank and bulk container instructions (RID)       | : T7                      |
| Portable tank and bulk container special provisions (RID) | : TP1, TP28               |
| 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 substances with Annex XVII restrictions

Contains no REACH candidate substance

Contains no REACH Annex XIV substances.

#### 15.1.2. National regulations

### Germany

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AwSV/VwVwS Annex reference : Water hazard class (WGK) 3, strongly 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)

### 15.2. Chemical safety assessment

No additional information available

### SECTION 16: Other information

Full text of H- and EUH-phrases:

|               |   |
|---------------|---|
| Eye Irrit. 2  | Serious eye damage/eye irritation, Category 2 |
| Ox. Liq. 1    | Oxidising Liquids, Category 1                 |
| Ox. Sol. 1    | Oxidising Solids, Category 1                  |
| Skin Corr. 1A | Skin corrosion/irritation, Category 1A        |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2         |
| H271          | May cause fire or explosion; strong oxidiser  |
| H314          | Causes severe skin burns and eye damage       |
| H315          | Causes skin irritation                        |
| H319          | Causes serious eye irritation                 |

*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*