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 : 0017G

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 - 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]

Flammable liquids, Category 2 : H225
Acute toxicity (oral), Category 4 : H302
Acute toxicity (dermal), Category 4 : H312
Acute toxicity (inhalation: dust, mist), Category 4 : H332
Serious eye damage/eye irritation, Category 2 : H319

Full text of H statements : see section 16
2.2. Label elements

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

Hazard pictograms (CLP):

- GHS02
- GHS07

Signal word (CLP): Danger

Hazard statements (CLP):
- H225 - Highly flammable liquid and vapour.
- H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- H319 - Causes serious eye irritation.

Precautionary statements (CLP):
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- 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.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetonitrile</td>
<td>(CAS-No.) 75-05-8 (EC-No.) 200-835-2 (EC Index-No.) 608-001-00-3</td>
<td>49.5 - 50</td>
<td>Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319</td>
</tr>
<tr>
<td>WATER AR</td>
<td>(CAS-No.) 7732-18-5 (EC-No.) 231-791-2</td>
<td>49.5 - 50</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16
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 you feel unwell, seek medical advice.

First-aid measures after skin contact: Take off contaminated clothing. 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. Rinse cautiously with water for several minutes. 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 after inhalation: Harmful if inhaled.

Symptoms/effects after skin contact: Harmful in contact with skin.

Symptoms/effects after eye contact: Causes serious eye irritation.

Symptoms/effects after ingestion: Harmful if swallowed.

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 (CO2).

Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Highly flammable liquid and vapour.

Explosion hazard: Heating may cause a fire or explosion.

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: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Use personal protective equipment as required.

Emergency procedures: Stop release.

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. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

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 original container. Keep container tightly closed. Store in a dry place.

7.3. Specific end use(s)

No additional information available

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 appropriate mask

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: Clear Colorless.
Odour: ether odor.
Odour threshold: No data available
pH: No data available
Relative evaporation rate (butylacetate=1): No data available
Melting point: -46 °C
Freezing point: No data available
Boiling point: 81.6 °C
Flash point: 2 °C
Auto-ignition temperature: 524 °C
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
Density: 0.79 g/cm³
Solubility: No data available
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Log Pow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
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
Highly flammable liquid and vapour.

10.3. Possibility of hazardous reactions
No additional information available

10.4. Conditions to avoid

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 : Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.

ATE CLP (oral) 500 mg/kg bodyweight
ATE CLP (dermal) 1100 mg/kg bodyweight
ATE CLP (dust,mist) 1.5 mg/l/4h

Skin corrosion/irritation : Not classified
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
STOT-single exposure : Not classified

STOT-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

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

- No additional information available

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### SECTION 14: Transport information

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

#### 14.1. UN number

- **UN-No. (ADR)**: 1648
- **UN-No. (IMDG)**: 1648
- **UN-No. (IATA)**: 1648
- **UN-No. (ADN)**: 1648
- **UN-No. (RID)**: 1648

#### 14.2. UN proper shipping name

- **Proper Shipping Name (ADR)**: ACETONITRILE
- **Proper Shipping Name (IMDG)**: ACETONITRILE
- **Proper Shipping Name (IATA)**: Acetonitrile
- **Proper Shipping Name (ADN)**: ACETONITRILE
- **Proper Shipping Name (RID)**: ACETONITRILE
- **Transport document description (ADR)**: UN 1648 ACETONITRILE, 3, II, (D/E)
- **Transport document description (IMDG)**: UN 1648 ACETONITRILE, 3, II (2°C c.c.)
- **Transport document description (IATA)**: UN 1648 Acetonitrile, 3, II
### 14.3. Transport hazard class(es)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Transport hazard class(es)</th>
<th>Danger labels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADR</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>IMDG</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>IATA</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>ADN</strong></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>RID</strong></td>
<td>3</td>
<td>3</td>
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</tbody>
</table>

### 14.4. Packing group

<table>
<thead>
<tr>
<th>Mode</th>
<th>Packing group</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR</td>
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<tr>
<td>IMDG</td>
<td>II</td>
</tr>
<tr>
<td>IATA</td>
<td>II</td>
</tr>
<tr>
<td>ADN</td>
<td>II</td>
</tr>
<tr>
<td>RID</td>
<td>II</td>
</tr>
</tbody>
</table>

Transport document description (ADN): UN 1648 ACETONITRILE, 3, II
Transport document description (RID): UN 1648 ACETONITRILE, 3, II
ACETONITRILE/WATER 50:50 (W/W) FOR HPLC
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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): F1
Limited quantities (ADR): 1l
Excepted quantities (ADR): E2
Packing instructions (ADR): P001, IBC02, R001
Mixed packing provisions (ADR): MP19
Portable tank and bulk container instructions (ADR): T7
Portable tank and bulk container special provisions (ADR): TP2
Tank code (ADR): LGBF
Vehicle for tank carriage: FL
Transport category (ADR): 2
Special provisions for carriage - Operation (ADR): S2, S20
Hazard identification number (Kemler No.): 33
Orange plates: 33
Tunnel restriction code (ADR): D/E
EAC code: •2YE

- Transport by sea
Limited quantities (IMDG): 1 L
Excepted quantities (IMDG): E2
Packing instructions (IMDG): P001
IBC packing instructions (IMDG): IBC02
Tank instructions (IMDG): T7
Tank special provisions (IMDG): TP2
EmS-No. (Fire): F-E
EmS-No. (Spillage): S-D
Stowage category (IMDG): B
Stowage and handling (IMDG): SW2
Flash point (IMDG): 2°C c.c.

- Air transport
PCA Excepted quantities (IATA): E2
PCA Limited quantities (IATA): Y341
PCA limited quantity max net quantity (IATA): 1L
PCA packing instructions (IATA): 353
PCA max net quantity (IATA): 5L
CAO packing instructions (IATA): 364
CAO max net quantity (IATA): 60L
ACETONITRILE/WATER 50:50 (W/W) FOR HPLC
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ERG code (IATA) : 3L

- Inland waterway transport
Classification code (ADN) : F1
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EX, A
Ventilation (ADN) : VE01
Number of blue cones/lights (ADN) : 1

- Rail transport
Classification code (RID) : F1
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2
Packing instructions (RID) : P001, IBC02, R001
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T7
Portable tank and bulk container special provisions (RID) : TP2
Tank codes for RID tanks (RID) : LGBF
Transport category (RID) : 2
Colis express (express parcels) (RID) : CE7
Hazard identification number (RID) : 33

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

Netherlands
SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
Safety Data Sheet

**Denmark**
- Class for fire hazard: Class I-1
- Store unit: 1 liter
- Classification remarks: F <Flam. Liq. 2>; Emergency management guidelines for the storage of flammable liquids must be followed
- Recommendations Danish Regulation: Pregnant/breastfeeding women working with the product must not be in direct contact with the product

**15.2. Chemical safety assessment**
No additional information available

**SECTION 16: Other information**

Full text of H- and EUH-statements:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Dermal)</th>
<th>Acute toxicity (dermal), Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 (Inhalation)</td>
<td>Acute toxicity (inhal.), Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Inhalation:dust,mist)</td>
<td>Acute toxicity (inhalation:dust,mist) Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>Acute toxicity (oral), Category 4</td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation, Category 2</td>
</tr>
<tr>
<td>Flam. Liq. 2</td>
<td>Flammable liquids, Category 2</td>
</tr>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H312</td>
<td>Harmful in contact with skin.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
</tbody>
</table>

*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.*