# MATERIAL SAFETY DATA SHEET (MSDS)

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

### 1.1. Product identifier

<table>
<thead>
<tr>
<th>Product form</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade name</td>
<td>2-Acetylthiophene 98%</td>
</tr>
<tr>
<td>EC no</td>
<td>201-804-6</td>
</tr>
<tr>
<td>CAS No</td>
<td>88-15-3</td>
</tr>
<tr>
<td>Product code</td>
<td>00575</td>
</tr>
<tr>
<td>Formula</td>
<td>C₆H₆OS</td>
</tr>
</tbody>
</table>

### 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 - 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]**

- Acute toxicity (oral), Category 1: H300
- Acute toxicity (dermal), Category 3: H311
- Acute toxicity (inhal.), Category 3: H331

Full text of classification categories and H statements: see section 16
2-Acetylthiophene 98%
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Classification according to Directive 67/548/EEC or 1999/45/EC
T; R23
T; R25
C; R34
Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) : [GHS06]

Signal word (CLP) : Danger
Hazard statements (CLP) : H300 - Fatal if swallowed
H311+H331 - Toxic in contact with skin or if inhaled

Precautionary statements (CLP) : P261 - Avoid breathing vapours, dust, fume, gas
P264 - Wash hands thoroughly after handling
P280 - Wear protective gloves, protective clothing, eye protection, face protection
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER
P311 - Call a doctor

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance
Name : 2-ACETYLTHIOPHENE For Synthesis
CAS No : 88-15-3
EC no : 201-804-6

Full text of R- and H-phrases: see section 16

3.2. Mixture
Not applicable
SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after skin contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion: Rinse mouth. Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

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

Symptoms/injuries after inhalation: Toxic if inhaled.

Symptoms/injuries after skin contact: Toxic in contact with skin.

Symptoms/injuries after ingestion: Fatal if swallowed.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media


Unsuitable extinguishing media: Do not use extinguishing media containing water.

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

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. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures: Do not eat, drink or smoke when using this product. 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

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 face shield
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
Molecular mass : 126.18 g/mol
Colour : brown.
Odour : No data available
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : 10 - 11 °C
Freezing point : No data available
Boiling point : 214 °C
Flash point : 96 °C
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
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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
Thermal decomposition generates: Corrosive vapours.

10.2. Chemical stability
Stable under normal conditions.

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
Thermal decomposition generates: Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
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
Potential adverse human health effects and symptoms:

Toxic if swallowed.

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
Product/Packaging disposal recommendations:
Dispose of contents/container to...
Ecology - waste materials:
Hazardous waste due to toxicity.

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR) : 2810
UN-No. (IMDG) : 2810
UN-No. (IATA) : 2810
UN-No. (ADN) : 2810
UN-No. (RID) : 2810

14.2. UN proper shipping name

Proper Shipping Name (ADR) : TOXIC LIQUID, ORGANIC, N.O.S.
Proper Shipping Name (IMDG) : TOXIC LIQUID, ORGANIC, N.O.S.
Proper Shipping Name (IATA) : TOXIC LIQUID, ORGANIC, N.O.S.
Proper Shipping Name (ADN) : TOXIC LIQUID, ORGANIC, N.O.S.
Proper Shipping Name (RID) : TOXIC LIQUID, ORGANIC, N.O.S.
### 2-Acetylthiophene 98%

#### Safety Data Sheet

<table>
<thead>
<tr>
<th>Transport document description (ADR)</th>
<th>UN 2810 TOXIC LIQUID, ORGANIC, N.O.S., 6.1, II, (D/E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport document description (IMDG)</td>
<td>UN 2810 TOXIC LIQUID, ORGANIC, N.O.S., 6.1, II</td>
</tr>
<tr>
<td>Transport document description (IATA)</td>
<td>UN 2810 TOXIC LIQUID, ORGANIC, N.O.S., 6.1, II</td>
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<tr>
<td>Transport document description (ADN)</td>
<td>UN 2810 TOXIC LIQUID, ORGANIC, N.O.S., 6.1, II</td>
</tr>
<tr>
<td>Transport document description (RID)</td>
<td>UN 2810 TOXIC LIQUID, ORGANIC, N.O.S., 6.1, II</td>
</tr>
</tbody>
</table>

### 14.3 Transport hazard class(es)

#### ADR
- Transport hazard class(es) (ADR): 6.1
- Danger labels (ADR): 6.1

![Danger label ADR](image)

#### IMDG
- Transport hazard class(es) (IMDG): 6.1
- Danger labels (IMDG): 6.1

![Danger label IMDG](image)

#### IATA
- Transport hazard class(es) (IATA): 6.1
- Hazard labels (IATA): 6.1

![Danger label IATA](image)

#### ADN
- Transport hazard class(es) (ADN): 6.1
- Danger labels (ADN): 6.1

![Danger label ADN](image)

#### RID
- Transport hazard class(es) (RID): 6.1
- Danger labels (RID): 6.1

![Danger label RID](image)
14.4. Packing group
Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

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) : T1
  Special provision (ADR) : 274, 614
  Limited quantities (ADR) : 100ml
  Excepted quantities (ADR) : E4
  Packing instructions (ADR) : P001, IBC02
  Mixed packing provisions (ADR) : MP15
  Portable tank and bulk container instructions (ADR) : T11
  Portable tank and bulk container special provisions (ADR) : TP2, TP27
  Tank code (ADR) : L4BH
  Tank special provisions (ADR) : TU15, TE19
  Vehicle for tank carriage : AT
  Transport category (ADR) : 2
  Special provisions for carriage - Loading, unloading and handling (ADR) : CV13, CV28
  Special provisions for carriage - Operation (ADR) : S9, S19
  Hazard identification number (Kemler No.) : 60
  Orange plates : 60
  Tunnel restriction code (ADR) : D/E
  EAC code : 2X
  APP code : B

- Transport by sea
  Special provision (IMDG) : 274
  Limited quantities (IMDG) : 100 ml
  Excepted quantities (IMDG) : E4
  Packing instructions (IMDG) : P001
  IBC packing instructions (IMDG) : IBC02
  Tank instructions (IMDG) : T11
  Tank special provisions (IMDG) : TP2, TP13, TP27
  EmS-No. (Fire) : F-A
  EmS-No. (Spillage) : S-A
  Stowage category (IMDG) : B
  Stowage and handling (IMDG) : SW2
  MFAG-No : 153
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- Air transport

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCA Excepted quantities (IATA)</td>
<td>E4</td>
</tr>
<tr>
<td>PCA Limited quantities (IATA)</td>
<td>Y641</td>
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<tr>
<td>PCA limited quantity max net quantity (IATA)</td>
<td>1L</td>
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<td>PCA packing instructions (IATA)</td>
<td>654</td>
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<tr>
<td>PCA max net quantity (IATA)</td>
<td>5L</td>
</tr>
<tr>
<td>CAO packing instructions (IATA)</td>
<td>662</td>
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<tr>
<td>CAO max net quantity (IATA)</td>
<td>60L</td>
</tr>
<tr>
<td>Special provision (IATA)</td>
<td>A3, A4, A137</td>
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<tr>
<td>ERG code (IATA)</td>
<td>6L</td>
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</table>

- Inland waterway transport

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Classification code (ADN)</td>
<td>T1</td>
</tr>
<tr>
<td>Special provisions (ADN)</td>
<td>274, 614, 802</td>
</tr>
<tr>
<td>Limited quantities (ADN)</td>
<td>100 ml</td>
</tr>
<tr>
<td>Excepted quantities (ADN)</td>
<td>E4</td>
</tr>
<tr>
<td>Carriage permitted (ADN)</td>
<td>T</td>
</tr>
<tr>
<td>Equipment required (ADN)</td>
<td>PP, EP, TOX, A</td>
</tr>
<tr>
<td>Ventilation (ADN)</td>
<td>VE02</td>
</tr>
<tr>
<td>Number of blue cones/lights (ADN)</td>
<td>2</td>
</tr>
</tbody>
</table>

- Rail transport

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification code (RID)</td>
<td>T1</td>
</tr>
<tr>
<td>Special provision (RID)</td>
<td>274, 614</td>
</tr>
<tr>
<td>Limited quantities (RID)</td>
<td>100ml</td>
</tr>
<tr>
<td>Excepted quantities (RID)</td>
<td>E4</td>
</tr>
<tr>
<td>Packing instructions (RID)</td>
<td>P001, IBC02</td>
</tr>
<tr>
<td>Mixed packing provisions (RID)</td>
<td>MP15</td>
</tr>
<tr>
<td>Portable tank and bulk container instructions (RID)</td>
<td>T11</td>
</tr>
<tr>
<td>Portable tank and bulk container special provisions (RID)</td>
<td>TP2, TP27</td>
</tr>
<tr>
<td>Tank codes for RID tanks (RID)</td>
<td>L4BH</td>
</tr>
<tr>
<td>Special provisions for RID tanks (RID)</td>
<td>TU15</td>
</tr>
<tr>
<td>Transport category (RID)</td>
<td>2</td>
</tr>
<tr>
<td>Special provisions for carriage – Loading and unloading (RID)</td>
<td>CW13, CW28, CW31</td>
</tr>
<tr>
<td>Colis express (express parcels) (RID)</td>
<td>CE5</td>
</tr>
<tr>
<td>Hazard identification number (RID)</td>
<td>60</td>
</tr>
</tbody>
</table>

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

No REACH Annex XVII restrictions
2-Acetylthiophene 98% is not on the REACH Candidate List
2-Acetylthiophene 98% is not on the REACH Annex XIV List
15.1.2. National regulations

Germany

Denmark
Class for fire hazard : Class III-1
Store unit : 50 liter
Classification remarks : Flammable according to the Danish Ministry of Justice; Emergency management guidelines for the storage of flammable liquids must be followed
Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
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 R-, H- and EUH-phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 1 (Oral)</th>
<th>Acute toxicity (oral), Category 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 3 (Dermal)</td>
<td>Acute toxicity (dermal), Category 3</td>
</tr>
<tr>
<td>Acute Tox. 3 (Inhalation)</td>
<td>Acute toxicity (inhal.), Category 3</td>
</tr>
<tr>
<td>H300</td>
<td>Fatal if swallowed</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled</td>
</tr>
<tr>
<td>R23</td>
<td>Toxic by inhalation</td>
</tr>
<tr>
<td>R25</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>R34</td>
<td>Causes burns</td>
</tr>
<tr>
<td>C</td>
<td>Corrosive</td>
</tr>
<tr>
<td>T</td>
<td>Toxic</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