MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

Product form: Substance

EC Index-No.: 612-127-00-4
EC-No.: 209-711-2
CAS-No.: 591-27-5
Product code: 01065

Chemical structure:

![Chemical structure of 3-aminophenol](image)

Synonyms: m-Aminophenol

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 (inhal.), Category 4 | H332 |
| Acute toxicity (oral), Category 4   | H302 |
| Hazardous to the aquatic environment — Chronic | H411 |
3-AMINOPHENOL Extra Pure
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Hazard, Category 2

Full text of hazard classes and H-statements: see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
Xn; R20/22
N; R51/53

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):

GHS07 GHS09

Signal word (CLP): Warning

Hazard statements (CLP):
H302+H332 - Harmful if swallowed or if inhaled
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP):
P273 - Avoid release to the environment.

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name: 3-AMINOPHENOL Extra Pure
CAS-No.: 591-27-5
EC-No.: 209-711-2
EC Index-No.: 612-127-00-4

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

3.2. Mixtures
Not applicable
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 water/…. Get immediate medical advice/attention.

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. Call a POISON CENTER/doctor if you feel unwell.

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

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


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.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. 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. Avoid dust formation.

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

<table>
<thead>
<tr>
<th>Protection</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand protection</td>
<td>Protective gloves</td>
</tr>
<tr>
<td>Eye protection</td>
<td>Chemical goggles or safety glasses</td>
</tr>
<tr>
<td>Skin and body protection</td>
<td>Wear suitable protective clothing</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>[In case of inadequate ventilation] wear respiratory protection.</td>
</tr>
</tbody>
</table>

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Colour</td>
<td>Greyish white flakes.</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>120 - 124 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>164 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>155 °C</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Water: Soluble in hot water</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
</tbody>
</table>
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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
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 : Inhalation: Harmful if inhaled. Oral: Harmful if swallowed.

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
STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified
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Potential adverse human health effects and symptoms: Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - water: Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>3-AMINOPHENOL Extra Pure (S91-27-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
</tr>
</tbody>
</table>

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 hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: Transport information

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

14.1. UN number
UN-No. (ADR): 2512
UN-No. (IMDG): 2512
UN-No. (IATA): 2512
UN-No. (ADN): 2512
UN-No. (RID): 2512

14.2. UN proper shipping name
Proper Shipping Name (ADR): AMINOPHENOLS (O-, M-, P-)
Proper Shipping Name (IMDG): AMINOPHENOLS (o-, m-, p-)
Proper Shipping Name (IATA): Aminophenols
Proper Shipping Name (ADN): AMINOPHENOLS (O-, M-, P-)
Proper Shipping Name (RID): AMINOPHENOLS (o-, m-, p-)
Transport document description (ADR): UN 2512 AMINOPHENOLS (O-, M-, P-), 6.1, III, (E), ENVIRONMENTALLY HAZARDOUS
3-AMINOPHENOL Extra Pure
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Transport document description (IMDG)  : UN 2512 AMINOPHENOLS (o-, m-, p-), 6.1, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)   : UN 2512 Aminophenols, 6.1, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)     : UN 2512 AMINOPHENOLS (O-, M-, P-), 6.1, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)      : UN 2512 AMINOPHENOLS (o-, m-, p-), 6.1, III, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

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

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

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

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

RID 
Transport hazard class(es) (RID)      : 6.1
Danger labels (RID)                    : 6.1
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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

14.4. Packing group

<table>
<thead>
<tr>
<th>Packing group (ADR)</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing group (IMDG)</td>
<td>III</td>
</tr>
<tr>
<td>Packing group (IATA)</td>
<td>III</td>
</tr>
<tr>
<td>Packing group (ADN)</td>
<td>III</td>
</tr>
<tr>
<td>Packing group (RID)</td>
<td>III</td>
</tr>
</tbody>
</table>

14.5. Environmental hazards

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

14.6. Special precautions for user

- Overland transport

| Classification code (ADR) | T2 |
| Special provisions (ADR)  | 279 |
| Limited quantities (ADR)  | 5kg |
| Excepted quantities (ADR) | E1 |
| Packing instructions (ADR) | P002, IBC08, LP02, R001 |
| Special packing provisions (ADR) | B3 |
| Mixed packing provisions (ADR) | MP10 |
| Portable tank and bulk container instructions (ADR) | T1 |
| Portable tank and bulk container special provisions (ADR) | TP33 |
| Tank code (ADR)            | SGAH, L4BH |
| Tank special provisions (ADR) | TU15, TE19 |
| Vehicle for tank carriage  | AT |
| Transport category (ADR)   | 2 |
| Special provisions for carriage - Bulk (ADR) | VC1, VC2, AP7 |
| Special provisions for carriage - Loading, unloading and handling (ADR) | CV13, CV28 |
| Special provisions for carriage - Operation (ADR) | S9 |
| Hazard identification number (Kemler No.) | 60 |
| Orange plates              | 60 2512 |

| Tunnel restriction code (ADR) | E |
| EAC code                      | 2X |

- Transport by sea

| Special provisions (IMDG) | 279 |
| Packing instructions (IMDG) | P002, LP02 |
| IBC packing instructions (IMDG) | IBC08 |
| IBC special provisions (IMDG) | B3 |
| Tank instructions (IMDG)    | T1 |
| Tank special provisions (IMDG) | TP33 |
| EmS-No. (Fire)              | F-A |
| EmS-No. (Spillage)          | S-A |
| Stowage category (IMDG)     | A |
Properties and observations (IMDG): White or brownish (ortho-and para-) or reddish-yellow (meta-) crystals. Soluble in water. Toxic if swallowed, by skin contact or by inhalation.

MFAG-No: 152

- Air transport

PCA Excepted quantities (IATA): E1
PCA Limited quantities (IATA): Y645
PCA limited quantity max net quantity (IATA): 10kg
PCA packing instructions (IATA): 670
PCA max net quantity (IATA): 100kg
CAO packing instructions (IATA): 677
CAO max net quantity (IATA): 200kg
Special provisions (IATA): A113
ERG code (IATA): 6L

- Inland waterway transport

Classification code (ADN): T2
Special provisions (ADN): 279, 802
Limited quantities (ADN): 5 kg
Excepted quantities (ADN): E1
Equipment required (ADN): PP, EP
Number of blue cones/lights (ADN): 0

- Rail transport

Classification code (RID): T2
Special provisions (RID): 279
Excepted quantities (RID): E1
Packing instructions (RID): P002, IBC08, LP02, R001
Special packing provisions (RID): B3
Mixed packing provisions (RID): MP10
Portable tank and bulk container instructions (RID): T1
Portable tank and bulk container special provisions (RID): TP33
Tank codes for RID tanks (RID): SGAH, L4BH
Special provisions for RID tanks (RID): TU15
Transport category (RID): 2
Special provisions for carriage – Bulk (RID): VC1, VC2, AP7
Special provisions for carriage - Loading, unloading and handling (RID): CW13, CW28, CW31
Colis express (express parcels) (RID): CE11
Hazard identification number (RID): 60

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
3-AMINOPHENOL Extra Pure is not on the REACH Candidate List
3-AMINOPHENOL Extra Pure is not on the REACH Annex XIV List
15.1.2. National regulations

**Germany**

**Netherlands**
SZW-lijst van kankerverwekkende stoffen: The substance is not listed
SZW-lijst van mutagene stoffen: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling: The substance is not listed

**Denmark**
Recommendations Danish Regulation: Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment
No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Inhalation)</th>
<th>Acute toxicity (inhal.), Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>Acute toxicity (oral), Category 4</td>
</tr>
<tr>
<td>Aquatic Chronic 2</td>
<td>Hazardous to the aquatic environment — Chronic Hazard, Category 2</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>R20/22</td>
<td>Harmful by inhalation and if swallowed</td>
</tr>
<tr>
<td>R51/53</td>
<td>Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment</td>
</tr>
<tr>
<td>N</td>
<td>Dangerous for the environment</td>
</tr>
<tr>
<td>Xn</td>
<td>Harmful</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.