

### MATERIAL SAFETY DATA SHEET (MSDS)

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

##### 1.1. Product identifier

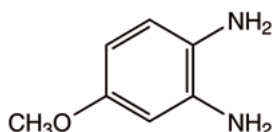
Product form : Substance

:

CAS-No. : 102-51-2

Product code : D0177

Chemical structure :



Synonyms : 4-Methoxy-o-phenylenediamine

##### 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]

Acute toxicity (oral), H301

Category 3

Skin corrosion/irritation, H315

Category 2

Serious eye damage/eye H319

irritation, Category 2

Specific target organ H335

toxicity — Single

exposure, Category 3,

Respiratory tract irritation

Full text of H statements : see section 16

# 4-METHOXY-1,2-PHENYLENEDIAMINE

## Safety Data Sheet

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

### 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)

: H301 - Toxic if swallowed.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
H335 - May cause respiratory irritation.

Precautionary statements (CLP)

: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
P405 - Store locked up.

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

| Name                           | Product identifier | %   |
|--------------------------------|--------------------|-----|
| 4-METHOXY-1,2-PHENYLENEDIAMINE | (CAS-No.) 102-51-2 | 100 |

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

### 3.2. Mixtures

Not applicable

# 4-METHOXY-1,2-PHENYLENEDIAMINE

## 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 you feel unwell, seek medical advice.
- 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. 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 : May cause respiratory irritation.
- Symptoms/effects after skin contact : Causes skin irritation.
- Symptoms/effects after eye contact : Causes serious eye irritation.
- Symptoms/effects after ingestion : Toxic 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 powder.
- 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 cool.

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### 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   | : Approved supplied air respirator   |

## SECTION 9: Physical and chemical properties

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

|                                            |                     |
|--------------------------------------------|---------------------|
| Physical state                             | : Solid             |
| Molecular mass                             | : 138.17 g/mol      |
| Colour                                     | : Brownish purple.  |
| Odour                                      | : No data available |
| Odour threshold                            | : No data available |
| pH                                         | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point                              | : 46 - 50 °C        |
| 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 |

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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

Air contact. Moisture. Water, humidity.

### 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                    | : Oral: Toxic if swallowed.         |
| 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                    |
| STOT-single exposure              | : May cause respiratory irritation. |
| STOT-repeated exposure            | : Not classified                    |
| Aspiration hazard                 | : Not classified                    |

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## Safety Data Sheet

### 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)  | : 2811 |
| UN-No. (IMDG) | : 2811 |
| UN-No. (IATA) | : 2811 |
| UN-No. (ADN)  | : 2811 |
| UN-No. (RID)  | : 2811 |

#### 14.2. UN proper shipping name

|                                       |                                                       |
|---------------------------------------|-------------------------------------------------------|
| Proper Shipping Name (ADR)            | : TOXIC SOLID, ORGANIC, N.O.S.                        |
| Proper Shipping Name (IMDG)           | : TOXIC SOLID, ORGANIC, N.O.S.                        |
| Proper Shipping Name (IATA)           | : Toxic solid, organic, n.o.s.                        |
| Proper Shipping Name (ADN)            | : TOXIC SOLID, ORGANIC, N.O.S.                        |
| Proper Shipping Name (RID)            | : TOXIC SOLID, ORGANIC, N.O.S.                        |
| Transport document description (ADR)  | : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III, (E) |
| Transport document description (IMDG) | : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III      |
| Transport document description (IATA) | : UN 2811 Toxic solid, organic, n.o.s., 6.1, III      |
| Transport document description (ADN)  | : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III      |
| Transport document description (RID)  | : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III      |

#### 14.3. Transport hazard class(es)

ADR

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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



#### 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

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|                   |                                          |
|-------------------|------------------------------------------|
| Marine pollutant  | : No                                     |
| Other information | : No supplementary information available |

### 14.6. Special precautions for user

#### - Overland transport

|                                                                         |                           |
|-------------------------------------------------------------------------|---------------------------|
| Classification code (ADR)                                               | : T2                      |
| Special provisions (ADR)                                                | : 274, 614                |
| 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                                                           | :                         |



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

#### - Transport by sea

|                                    |                                                         |
|------------------------------------|---------------------------------------------------------|
| Special provisions (IMDG)          | : 223, 274                                              |
| Packing instructions (IMDG)        | : P002                                                  |
| 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) | : Toxic if swallowed, by skin contact or by inhalation. |

#### - 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 |

# 4-METHOXY-1,2-PHENYLENEDIAMINE

## Safety Data Sheet

Special provisions (IATA) : A3, A5  
ERG code (IATA) : 6L

### - Inland waterway transport

Classification code (ADN) : T2  
Special provisions (ADN) : 274, 614, 802  
Limited quantities (ADN) : 5 kg  
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) : T2  
Special provisions (RID) : 274, 614  
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) : SG4H, 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

4-METHOXY-1,2-PHENYLENEDIAMINE is not on the REACH Candidate List

4-METHOXY-1,2-PHENYLENEDIAMINE is not on the REACH Annex XIV List

#### 15.1.2. National regulations

##### Germany

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

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## Safety Data Sheet

### 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:

|                     |                                                                                            |
|---------------------|--------------------------------------------------------------------------------------------|
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3                                                          |
| Eye Irrit. 2        | Serious eye damage/eye irritation, Category 2                                              |
| Skin Irrit. 2       | Skin corrosion/irritation, Category 2                                                      |
| STOT SE 3           | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H301                | Toxic if swallowed.                                                                        |
| H315                | Causes skin irritation.                                                                    |
| H319                | Causes serious eye irritation.                                                             |
| H335                | May cause respiratory 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.*