

CHAITANYA CHS, 2<sup>nd</sup> FLOOR, OFFICE # 206, SIDDHARTH NAGAR, S.V.ROAD, GOREGAON (W), MUMBAI 400062, MH, INDIA.  
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## MATERIAL SAFETY DATA SHEET (MSDS)

### DIPHENYLAMINE (FOR SYNTHESIS)

#### 1. Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

Trade name : DIPHENYLAMINE (FOR SYNTHESIS)

Product code : D0087505000

Identification of the product : Diphenylamine  
CAS No :122-39-4  
EC No :204-539-4  
Annex No :612-026-00-5

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

Use : Industrial. For professional use only.

##### 1.3. Details of the supplier of the safety data sheet

Company identification SUVCHEM  
Chaitanya Tower, 2nd Floor, Office # 206,  
Siddharth Nagar, S.V. Road,  
Goregaon (West), Mumbai - 400062,  
Maharashtra, India.  
Contact: +91 22 28725393 / 94 / 95  
Email ID: info@suvchem.com/care@suvchem.com

##### 1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [ Office hours ]

#### 2. Hazards identification -DSD

##### 2.1. Classification of the substance or mixture

##### Classification EC 67/548 or EC 1999/45

Classification : T; R23/24/25  
R33  
N; R50-53

##### Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Acute toxicity, Oral - Category 3 - Danger (CLP : Acute Tox. 3) H301  
Acute toxicity, Inhalation - Category 3 - Danger (CLP : Acute Tox. 3) H331  
Acute toxicity, dermal - Category 3 - Danger (CLP : Acute Tox. 3) H311

Environmental hazards : Hazardous to the aquatic environment - Acute hazard - Category 1 - Warning (CLP : Aquatic Acute 1) H400  
Hazardous to the aquatic environment - Chronic hazard - Category 1 - Warning (CLP : Aquatic Chronic 1) H410

**MATERIAL SAFETY DATA SHEET (MSDS)**
**DIPHENYLAMINE (FOR SYNTHESIS)**
**2. Hazards identification -DSD (continued)**
**2.2. Label elements**
**Labelling EC 67/548 or EC 1999/45**
**Symbol(s)**

**Symbol(s)**

: T : Toxic  
 N : Dangerous for the environment

**R Phrase(s)**

: R23/24/25 : Toxic by inhalation, in contact with skin and if swallowed.  
 R33 : Danger of cumulative effects.  
 R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S Phrase(s)**

: S1/2 : Keep locked up and out of reach of children.  
 S28 : After contact with skin, wash immediately with  
 S36/37 : Wear suitable protective clothing and gloves.  
 S45 : In case of accident or if you feel unwell, seek medical advice immediately ( show the label when possible).  
 S60 : This material and its container must be disposed of as hazardous waste.  
 S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

**Contains**

: Diphenylamine

**Labelling Regulation EC 1272/2008 (CLP)**
**Hazard pictograms**

**Signal words**

: Danger

**Hazard statements**

: H301 : Toxic if swallowed.  
 H311 : Toxic in contact with skin.  
 H331 : Toxic if inhaled.  
 H410 : Very toxic to aquatic life with long lasting effects.

**Precautionary statements**
**• General**

: P102: Keep out of reach of children.  
 P103: Read label before use.  
 P101: If medical advice is needed, have product container or label at hand.

**• Prevention**

: P280: Wear protective gloves, protective clothing, eye protection, face protection.  
 P271: Use only outdoors or in a well-ventilated area.  
 P261: Avoid breathing dust, fume, gas, mist, vapours, spray.  
 P273: Avoid release to the environment.  
 P264: Wash thoroughly after handling.  
 P270: Do not eat, drink or smoke when using this product.

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## MATERIAL SAFETY DATA SHEET (MSDS)

### DIPHENYLAMINE (FOR SYNTHESIS)

#### 2. Hazards identification -DSD (continued)

- **Response** : P301+P310: IF SWALLOWED : Immediately call a POISON CENTER or doctor.  
P302+P352: IF ON SKIN : Wash with plenty of soap and water.  
P391: Collect spillage.  
P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.  
P363: Wash contaminated clothing before reuse.  
P361: Remove immediately all contaminated clothing.
  - **Storage** : P403+P233: Store in well-ventilated place. Keep container tightly closed.  
P405: Store locked up.
  - **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.  
P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
- Contains** : Diphenylamine

#### 2.3. Other hazards

- Other hazards** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

#### 3. Composition/information on ingredients

**Substance / Preparation** : Diphenylamine  
CAS No :122-39-4  
EC No :204-539-4  
Annex No :612-026-00-5  
Substance.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Diphenylamine	100 %	122-39-4	204-539-4	612-026-00-5	---	T; R23/24/25 R33 N; R50-53  Acute Tox. 3 (skin) _ H311 Acute Tox. 3 (inhal) _ H331 Acute Tox. 3 (oral) _ H301 Aquatic Acute 1 _ H400 Aquatic Chronic 1 _ H410

Contains no other components or impurities which will influence the classification of the product.

#### 4. First aid measures

##### 4.1. Description of first aid measures

- Inhalation** : Assure fresh air breathing. Allow the victim to rest. Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). Remove to fresh air and keep at rest in a position comfortable for breathing.
- Skin contact** : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse.

## MATERIAL SAFETY DATA SHEET (MSDS)

### DIPHENYLAMINE (FOR SYNTHESIS)

#### 4. First aid measures (continued)

- Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Immediately call a POISON CENTER or doctor. Specific treatment (see on this label).
- Eye contact** : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- Ingestion** : Do NOT induce vomiting. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor. Rinse mouth.

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

- Symptoms relating to use** : Repeated exposure to this material can result in absorption through skin causing significant health hazard.  
 Danger of serious damage to health by prolonged exposure through inhalation.  
 Swallowing a small quantity of this material will result in serious health hazard.

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

- General information** : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

#### 5. Fire-fighting measures

##### 5.1. Extinguishing media

- Suitable extinguishing media** : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media** : Do not use a heavy water stream.
- Surrounding fires** : Use water spray or fog for cooling exposed containers.

##### 5.2. Special hazards arising from the substance or mixture

- Hazardous combustion products** : Under fire conditions, hazardous fumes will be present.

##### 5.3. Advice for fire-fighters

- Protection against fire** : Do not enter fire area without proper protective equipment, including respiratory protection.
- Special procedures** : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

#### 6. Accidental release measures

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

**MATERIAL SAFETY DATA SHEET (MSDS)**
**DIPHENYLAMINE (FOR SYNTHESIS)**
**6. Accidental release measures (continued)**

**For emergency responders** : Equip cleanup crew with proper protection.  
Ventilate area.

**For non-emergency personnel** : Evacuate unnecessary personnel.

**6.2. Environmental precautions**

**Environmental precautions** : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.  
Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**

**Clean up methods** : On land, sweep or shovel into suitable containers. Minimize generation of dust.  
Store away from other materials.

**6.4. Reference to other sections**

See section 8. Exposure controls/personal protection

**7. Handling and storage**
**7.1. Precautions for safe handling**

**Handling** : Avoid breathing dust, fume, gas, mist, vapours, spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area.

**Technical protective measures** : Provide good ventilation in process area to prevent formation of vapour.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage** : Keep only in the original container in a cool, well ventilated place. Keep container tightly closed.

**Storage - away from** : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

**7.3. Specific end use(s)**

**Specific end use(s)** : None.

**8. Exposure controls/personal protection**
**8.1. Exposure controls**

**Personal protection** : Avoid all unnecessary exposure.

**MATERIAL SAFETY DATA SHEET (MSDS)**
**DIPHENYLAMINE (FOR SYNTHESIS)**
**8. Exposure controls/personal protection (continued)**

- **Respiratory protection** : In case of insufficient ventilation, wear suitable respiratory equipment.
- **Hand protection** : Wear protective gloves.
- **Eye protection** : Chemical goggles or safety glasses.
- **Others** : When using, do not eat, drink or smoke.

**8.2. Control parameters**

**Occupational Exposure Limits** : No data available.

**9. Physical and chemical properties**
**9.1. Information on basic physical and chemical properties**

<b>Physical state at 20 °C</b>	: Solid.
<b>Colour</b>	: Cream coloured powder
<b>Odour</b>	: Floral odor
<b>Odour threshold</b>	: No data available.
<b>pH value</b>	: Not applicable.
<b>Melting point [°C]</b>	: 50 - 53 °C
<b>Decomposition point [°C]</b>	: N/A
<b>Critical temperature [°C]</b>	: N/A
<b>Auto-ignition temperature [°C]</b>	: N/A
<b>Flammability (solid, gas)</b>	: N/A
<b>Flash point [°C]</b>	: 153 °C
<b>Boiling point [°C]</b>	: 302 °C
<b>Initial boiling point [°C]</b>	: N/A
<b>Final boiling point [°C]</b>	: N/A
<b>Evaporation rate</b>	: N/A
<b>Vapour pressure [20°C]</b>	: N/A
<b>Vapour pressure mm/Hg</b>	: 1 mm Hg @ 1080C
<b>Vapour density</b>	: 5,82
<b>Density [g/cm<sup>3</sup>]</b>	: 1,16
<b>Relative density, gas (air=1)</b>	: N/A
<b>Relative density, liquid (water=1)</b>	: N/A
<b>Solubility in water [% weight]</b>	: Insoluble in water
<b>Solubility in water</b>	: N/A
<b>Log Pow octanol / water at 20°C</b>	: No data available.
<b>Solubility</b>	: N/A
<b>Viscosity at 40°C [mm<sup>2</sup>/s]</b>	: N/A

**MATERIAL SAFETY DATA SHEET (MSDS)****DIPHENYLAMINE (FOR SYNTHESIS)****9. Physical and chemical properties (continued)****9.2. Other information**

Explosive properties	: N/A
Explosion limits - upper [%]	: N/A
Explosion limits - lower [%]	: N/A
Oxidising properties	: No data available.

**10. Stability and reactivity****10.1. Reactivity**

Reactivity	: Not established.
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**10.2. Chemical stability**

Chemical stability	: Stable under recommended storage conditions.
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**10.3. Possibility of hazardous reactions**

Hazardous reactions	: Not established.
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**10.4. Conditions to avoid**

Conditions to avoid	: Direct sunlight. Extremely high or low temperatures.
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**10.5. Incompatible materials**

Materials to avoid	: Strong acids. Strong bases.
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**10.6. Hazardous decomposition products**

Hazardous decomposition products	: Fumes. Carbon monoxide. Carbon dioxide.
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**11. Toxicological information****11.1. Information on toxicological effects**

Acute toxicity	
• Inhalation	: Toxic if inhaled.
• Dermal	: Toxic in contact with skin.
• Ingestion	: Toxic if swallowed.
Corrosion	: Based on available data, the classification criteria are not met.

## MATERIAL SAFETY DATA SHEET (MSDS)

### DIPHENYLAMINE (FOR SYNTHESIS)

#### 11. Toxicological information (continued)

<b>Irritation</b>	: Based on available data, the classification criteria are not met.
<b>Sensitization</b>	: Based on available data, the classification criteria are not met.
<b>Mutagenicity</b>	: Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	: Based on available data, the classification criteria are not met.
<b>Toxic for reproduction</b>	: Based on available data, the classification criteria are not met.
<b>STOT-single exposure</b>	: Based on available data, the classification criteria are not met.
<b>STOT-repeated exposure</b>	: Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	: Based on available data, the classification criteria are not met.

#### 12. Ecological information

##### 12.1. Toxicity

**Toxicity information** : Very toxic to aquatic life with long lasting effects.

##### 12.2. Persistence - degradability

**Persistence - degradability** : May cause long-term adverse effects in the environment.

##### 12.3. Bioaccumulative potential

**Bioaccumulative potential** : Not established.

##### 12.4. Mobility in soil

**Mobility in soil** : Not established.

##### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

##### 12.6. Other adverse effects

**Environmental precautions** : Avoid release to the environment.

#### 13. Disposal considerations

##### 13.1. Waste treatment methods

**General** : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.  
 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.



**MATERIAL SAFETY DATA SHEET (MSDS)**
**DIPHENYLAMINE (FOR SYNTHESIS)**
**13. Disposal considerations (continued)**

**Special precautions** : Hazardous waste due to toxicity.

**14. Transport information**
**14.1. Land transport (ADR-RID)**

**Proper shipping name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**UN N°** : 3077  
**H.I. nr** : 90  
**ADR - Class** : 9  
**Labelling - Transport** : 9 : Miscellaneous dangerous substances and articles.



**ADR - Classification code** : M7  
**ADR - Group** : III  
**ADR - Packing instructions** : P002 R001 LP002  
**ADR - Limited Quantity** : 5 KG  
**ADR - Tunnel code**



: E : Passage forbidden through tunnels of category E.

**14.2. Sea transport (IMDG) [English only]**

**Proper shipping name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**UN N°** : 3077  
**IMO-IMDG - Class or division** : 9 : Miscellaneous dangerous substances and articles.  
**IMO-IMDG - Packing group** : III  
**IMO-IMDG - Packing instructions** : P002 LP02  
**IMO-IMDG - Limited quantities** : 5 kg  
**IMO-IMDG - Marine pollution** : Yes  
**EMS-Nr** : F-A S-F

**14.3. Air transport (ICAO-IATA) [English only]**

**Proper shipping name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**UN N°** : 3077

**MATERIAL SAFETY DATA SHEET (MSDS)**
**DIPHENYLAMINE (FOR SYNTHESIS)**
**14. Transport information (continued)**

IATA - Class or division	: 9 : Miscellaneous dangerous substances and articles.
IATA - Packing group	: III
IATA - Passenger and Cargo Aircraft	: ALLOWED
- Passenger and Cargo - Packing instruction	: 956
- Passenger and Cargo - Maximum Quantity/Packing	: 400 kg
IATA - Cargo only	: ALLOWED
- Cargo only - Packing instruction	: 956
- Cargo only - Maximum Quantity/Packing	: 400 kg
IATA - Limited Quantities	: 30 kg G
ERG-Nr	: 9L

**15. Regulatory information**
**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Safety, health and environmental regulations/legislation specific for the substance or mixture	: Ensure all national/local regulations are observed.
REACH Restrictions - Annex XVII	: The components of this product are not subject to restrictions.
REACH Authorisation - Annex XIV	: The components of this product are not subject to authorization.

**15.2. Chemical Safety Assessment**

Chemical Safety Assessment	: It has not been carried out.
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**16. Other information**

Revision	: Revision - See : *
Abbreviations and acronyms	: PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative
Sources of key data used	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
List of relevant R phrases (heading 3)	: R23/24/25 : Toxic by inhalation, in contact with skin and if swallowed. R33 : Danger of cumulative effects. R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
List of full text of H-statements in section 3	: H301 : Toxic if swallowed. H311 : Toxic in contact with skin. H331 : Toxic if inhaled.

**MATERIAL SAFETY DATA SHEET (MSDS)**

**DIPHENYLAMINE (FOR SYNTHESIS)**

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

**DISCLAIMER:**

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

**End of document**