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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 : D0087500500

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

Physical state at 20 °C	: Solid.
Colour	: Cream coloured powder
Odour	: Floral odor
Odour threshold	: No data available.
pH value	: Not applicable.
Melting point [°C]	: 50 - 53 °C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: N/A
Flammability (solid, gas)	: N/A
Flash point [°C]	: 153 °C
Boiling point [°C]	: 302 °C
Initial boiling point [°C]	: N/A
Final boiling point [°C]	: N/A
Evaporation rate	: N/A
Vapour pressure [20°C]	: N/A
Vapour pressure mm/Hg	: 1 mm Hg @ 1080C
Vapour density	: 5,82
Density [g/cm³]	: 1,16
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Insoluble in water
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: N/A
Viscosity at 40°C [mm²/s]	: 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)

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

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