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MATERIAL SAFETY DATA SHEET (MSDS)

2,4-DINITROANILINE

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

1.1. Product identifier

Trade name : 2,4-DINITROANILINE

Product code : D0086700500

Identification of the product : 2,4-dinitroaniline
 CAS No :97-02-9
 EC No :202-553-5
 Annex No :612-040-00-1

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+; R26/27/28
 R33
 N; R51-53

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

Health hazards : Acute toxicity, Oral - Category 1 - Danger (CLP : Acute Tox. 1) H300
 Acute toxicity, Inhalation - Category 2 - Danger (CLP : Acute Tox. 2) H330
 Acute toxicity, dermal - Category 1 - Danger (CLP : Acute Tox. 1) H310

Environmental hazards : Hazardous to the aquatic environment - Chronic hazard - Category 2 (CLP :
 Aquatic Chronic 2) H411

2.2. Label elements

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2,4-DINITROANILINE
2. Hazards identification -DSD (continued)
Labelling EC 67/548 or EC 1999/45
Symbol(s)

Symbol(s)

: T+ : Very toxic
 N : Dangerous for the environment

R Phrase(s)

: R26/27/28 : Very toxic by inhalation, in contact with skin and if swallowed.
 R33 : Danger of cumulative effects.
 R51/53 : 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).
 S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contains

: 2,4-dinitroaniline

Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms

Signal words

: Danger

Hazard statements

: H300 : Fatal if swallowed.
 H310 : Fatal in contact with skin.
 H330 : Fatal if inhaled.
 H411 : 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

: P284: Wear respiratory protection.
 P280: Wear protective gloves, protective clothing, eye protection, face protection.
 P271: Use only outdoors or in a well-ventilated area.
 P260: Do not breathe 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.

• Response

: P301+P310: IF SWALLOWED : Immediately call a POISON CENTER or doctor.
 P391: Collect spillage.
 P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position

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2. Hazards identification -DSD (continued)

- comfortable for breathing.
P302+P350: IF ON SKIN : Gently wash with plenty of soap and water.
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.
- Contains** : 2,4-dinitroaniline

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** : 2,4-dinitroaniline
CAS No :97-02-9
EC No :202-553-5
Annex No :612-040-00-1
Substance.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
2,4-dinitroaniline	100 %	97-02-9	202-553-5	612-040-00-1	---	T+: R26/27/28 R33 N; R51-53 ----- Acute Tox. 1 (skin) _ H310 Acute Tox. 2 (inhal) _ H330 Acute Tox. 1 (oral) _ H300 Aquatic Chronic 2 _ H411

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. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor. Specific treatment is urgent (see on this label).
- Skin contact** : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. Specific treatment (see on this label). Remove/Take off immediately all contaminated clothing. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse.
- Eye contact** : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

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4. First aid measures (continued)

Ingestion : Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). Rinse mouth. Do NOT induce vomiting.

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

Symptoms relating to use : Fatal if swallowed.
 Fatal in contact with skin.
 Fatal if inhaled.

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

For emergency responders : Equip cleanup crew with proper protection.
 Ventilate area.
For non-emergency personnel : Evacuate unnecessary personnel.

6.2. Environmental precautions

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6. Accidental release measures (continued)

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 : Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Do not breathe dust, fume, gas, mist, vapours, spray. 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.

- **Respiratory protection** : Wear respiratory protection.
- **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

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8. Exposure controls/personal protection (continued)

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	: Yellow powder
Odour	: N/A
Odour threshold	: No data available.
pH value	: Not applicable.
Melting point [°C]	: 176 - 178 °C
Decomposition point [°C]	: 290 °C
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: > 350°C
Flammability (solid, gas)	: N/A
Flash point [°C]	: 89 °C
Boiling point [°C]	: 56.7 °C
Initial boiling point [°C]	: N/A
Final boiling point [°C]	: N/A
Evaporation rate	: N/A
Vapour pressure [20°C]	: 13 mbar @ 200C
Vapour pressure mm/Hg	: N/A
Vapour density	: 6,31
Density [g/cm ³]	: 1,615
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Insoluble
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: N/A
Viscosity at 40°C [mm ² /s]	: N/A

9.2. Other information

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

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10. Stability and reactivity
10.1. Reactivity

Reactivity : Not established.

10.2. Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.

11. Toxicological information
11.1. Information on toxicological effects
Acute toxicity

- Inhalation : Fatal if inhaled.
- Dermal : Fatal in contact with skin.
- Ingestion : Fatal if swallowed.

Corrosion : Based on available data, the classification criteria are not met.

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.

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12. Ecological information
12.1. Toxicity

Toxicity information : 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.

Special precautions : Hazardous waste due to toxicity.

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

Proper shipping name : DINITROANILINES

UN N° : 1596

H.I. nr : 60

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14. Transport information (continued)

ADR - Class : 6.1
Labelling - Transport : 6.1 : Toxic substances.



ADR - Classification code : T2
ADR - Group : II
ADR - Packing instructions : P002
ADR - Limited Quantity : 500 G
ADR - Tunnel code : D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.



14.2. Sea transport (IMDG) [English only]

Proper shipping name : DINITROANILINES
UN N° : 1596
IMO-IMDG - Class or division : 6.1 : Toxic substances.
IMO-IMDG - Packing group : II
IMO-IMDG - Packing instructions : P002
IMO-IMDG - Limited quantities : 500 g
IMO-IMDG - Marine pollution : Yes
EMS-Nr : F-A S-A

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

Proper shipping name : DINITROANILINES
UN N° : 1596
IATA - Class or division : 6.1 : Toxic substances.
IATA - Packing group : II
IATA - Passenger and Cargo Aircraft : ALLOWED
- Passenger and Cargo - Packing instruction : 669
- Passenger and Cargo - Maximum Quantity/Packing : 25 kg
IATA - Cargo only : ALLOWED
- Cargo only - Packing instruction : 676

MATERIAL SAFETY DATA SHEET (MSDS)
2,4-DINITROANILINE
14. Transport information (continued)

- Cargo only - Maximum Quantity/ Packing	: 100 kg
IATA - Limited Quantities	: 1 kg
ERG-Nr	: 6L

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)	: R26/27/28 : Very toxic by inhalation, in contact with skin and if swallowed. R33 : Danger of cumulative effects. R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
List of full text of H-statements in section 3	: H300 : Fatal if swallowed. H310 : Fatal in contact with skin. H330 : Fatal if inhaled. H411 : Toxic to aquatic life with long lasting effects.
Further information	: None.

MATERIAL SAFETY DATA SHEET (MSDS)

2,4-DINITROANILINE

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

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- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
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