2,4-DINITROPHENYL HYDRAZINE AR
MSDS

CAS-No.: 119-26-6 MSDS

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.: 119-26-6
Product code: 03471
Formula: C₆H₆N₄O₄
Chemical structure:

Synonyms: DNPH, Brady's reagent

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

1.2.1. Relevant identified uses

Industrial/Professional use specification: Industrial

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]
Flammable solids, Category 1
Acute toxicity (oral), Category 4

H228
H302

Full text of H statements: see section 16
2,4-DINITROPHENYL HYDRAZINE AR
Safety Data Sheet

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
F; R11
Xn; R22
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): GHS02 GHS07
Signal word (CLP): Danger
Hazard statements (CLP): H228 - Flammable solid.
H302 - Harmful if swallowed.
Precautionary statements (CLP): P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

2.3. Other hazards
No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances
Name: 2,4-DINITROPHENYL HYDRAZINE AR
CAS-No.: 119-26-6

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**
No additional information available

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**

Fire hazard: Flammable liquid and vapour.

 Explosion hazard: May form flammable/explosive vapour-air mixture.

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**

General measures: Remove ignition sources. No open flames. No smoking. Use special care to avoid static electric charges.

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. Take precautionary measures against static discharge. Use only non-sparking tools. Keep away from sources of ignition - No smoking.

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**

Technical measures: Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical/ventilating/lighting equipment.

Storage conditions: Keep in fireproof place. Keep container tightly closed.

Incompatible materials: Heat sources.
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: [In case of inadequate ventilation] wear respiratory protection.

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>Molecular mass</td>
<td>198.14 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>Orange red crystalline.</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</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>197 - 200 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</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: Slightly Soluble in 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>
2,4-DINITROPHENYL HYDRAZINE AR
Safety Data Sheet

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
Open flame. Heat. Sparks.

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: 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

Potential adverse human health effects and symptoms: Harmful if swallowed.
2,4-DINITROPHENYL HYDRAZINE AR
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
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) : 1325
UN-No. (IMDG) : 1325
UN-No. (IATA) : 1325
UN-No. (ADN) : 1325
UN-No. (RID) : 1325

14.2. UN proper shipping name
Proper Shipping Name (ADR) : FLAMMABLE SOLID, ORGANIC, N.O.S.
Proper Shipping Name (IMDG) : FLAMMABLE SOLID, ORGANIC, N.O.S.
Proper Shipping Name (IATA) : Flammable solid, organic, n.o.s.
Proper Shipping Name (ADN) : FLAMMABLE SOLID, ORGANIC, N.O.S.
Proper Shipping Name (RID) : FLAMMABLE SOLID, ORGANIC, N.O.S.
Transport document description (ADR) : UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S., 4.1, II, (E)
Transport document description (IMDG) : UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S., 4.1, II
Transport document description (IATA) : UN 1325 Flammable solid, organic, n.o.s., 4.1, II
Transport document description (ADN) : UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S., 4.1, II
Transport document description (RID) : UN 1325 FLAMMABLE SOLID, ORGANIC, N.O.S., 4.1, II
### 14.3. Transport hazard class(es)

<table>
<thead>
<tr>
<th>ADR</th>
<th>Transport hazard class(es) (ADR)</th>
<th>4.1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Danger labels (ADR)</td>
<td>4.1</td>
</tr>
</tbody>
</table>

**IMDG**

<table>
<thead>
<tr>
<th>ADR</th>
<th>Transport hazard class(es) (IMDG)</th>
<th>4.1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Danger labels (IMDG)</td>
<td>4.1</td>
</tr>
</tbody>
</table>

**IATA**

<table>
<thead>
<tr>
<th>ADR</th>
<th>Transport hazard class(es) (IATA)</th>
<th>4.1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hazard labels (IATA)</td>
<td>4.1</td>
</tr>
</tbody>
</table>

**ADN**

<table>
<thead>
<tr>
<th>ADR</th>
<th>Transport hazard class(es) (ADN)</th>
<th>4.1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Danger labels (ADN)</td>
<td>4.1</td>
</tr>
</tbody>
</table>

**RID**

<table>
<thead>
<tr>
<th>ADR</th>
<th>Transport hazard class(es) (RID)</th>
<th>4.1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Danger labels (RID)</td>
<td>4.1</td>
</tr>
</tbody>
</table>

### 14.4. Packing group

<table>
<thead>
<tr>
<th>ADR</th>
<th>Packing group (ADR)</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Packing group (IMDG)</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td>Packing group (IATA)</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td>Packing group (ADN)</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td>Packing group (RID)</td>
<td>II</td>
</tr>
</tbody>
</table>
14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport
  Classification code (ADR) : F1
  Special provisions (ADR) : 274
  Limited quantities (ADR) : 1kg
  Excepted quantities (ADR) : E2
  Packing instructions (ADR) : P002, IBC08
  Special packing provisions (ADR) : B4
  Mixed packing provisions (ADR) : MP10
  Portable tank and bulk container instructions (ADR) : T3
  Portable tank and bulk container special provisions (ADR) : TP33
  Tank code (ADR) : SGAN
  Vehicle for tank carriage : AT
  Transport category (ADR) : 2
  Special provisions for carriage - Packages (ADR) : V11
  Hazard identification number (Kemler No.) : 40
  Orange plates :

  Tunnel restriction code (ADR) : E
  EAC code : 1Z

- Transport by sea
  Special provisions (IMDG) : 274, 915
  Limited quantities (IMDG) : 1 kg
  Excepted quantities (IMDG) : E2
  Packing instructions (IMDG) : P002
  IBC packing instructions (IMDG) : IBC08
  IBC special provisions (IMDG) : B21, B4
  Tank instructions (IMDG) : T3
  Tank special provisions (IMDG) : TP33
  EmS-No. (Fire) : F-A
  EmS-No. (Spillage) : S-G
  Stowage category (IMDG) : B
  MFAG-No : 133

- Air transport
  PCA Excepted quantities (IATA) : E2
  PCA Limited quantities (IATA) : Y441
  PCA limited quantity max net quantity (IATA) : 5kg
  PCA packing instructions (IATA) : 445
  PCA max net quantity (IATA) : 15kg
  CAO packing instructions (IATA) : 448
CAO max net quantity (IATA) : 50kg
Special provisions (IATA) : A3, A803
ERG code (IATA) : 3L

- Inland waterway transport
Classification code (ADN) : F1
Special provisions (ADN) : 274
Limited quantities (ADN) : 1 kg
Excepted quantities (ADN) : E2
Equipment required (ADN) : PP
Number of blue cones/lights (ADN) : 1

- Rail transport
Classification code (RID) : F1
Special provisions (RID) : 274
Excepted quantities (RID) : E2
Packing instructions (RID) : P002, IBC08
Special packing provisions (RID) : B4
Mixed packing provisions (RID) : MP10
Portable tank and bulk container instructions (RID) : T3
Portable tank and bulk container special provisions (RID) : TP33
Tank codes for RID tanks (RID) : SGAN
Transport category (RID) : 2
Special provisions for carriage – Packages (RID) : W1
Colis express (express parcels) (RID) : CE10
Hazard identification number (RID) : 40

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
2,4-DINITROPHENYL HYDRAZINE AR is not on the REACH Candidate List
2,4-DINITROPHENYL HYDRAZINE AR 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)

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 (Oral)</th>
<th>Acute toxicity (oral), Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Sol. 1</td>
<td>Flammable solids, Category 1</td>
</tr>
<tr>
<td>H228</td>
<td>Flammable solid.</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>R11</td>
<td>Highly flammable</td>
</tr>
<tr>
<td>R22</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>F</td>
<td>Highly flammable</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.