1 Identification of the substances/ mixture and of the company/ undertaking

1.1 Product Identifiers
Product Number  RM5860
Product Name  2,4-Dinitrotoluene
CAS No.:  121-14-2
EC No.:  204-450-0

1.2 Relevant identified uses of the substance or mixture and uses advised against
1.2.1 Relevant identified uses  Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet
Produced by  HiMedia Laboratories Private Limited
Address  23, Vadhani Industrial Estate, LBS Marg, Ghatkopar (W), Mumbai - 400 086, India
Tel. No.  +91-22-2500 0970, +91-22-2500 1607  Fax No.: +91-22-2500 2468
Mail Id  info@himedialabs.com  Website: www.himedialabs.com

1.4 Emergency Tel. No.
Emergency Tel. No.  Please contact the regional HiMedia representation in your country

2 Hazards Identification

2.1 Classification of the substance or mixture
CLP Classification-Regulation (EC) No. 1272/2008[EU-GHS/CLP]
Toxic if swallowed, in contact with skin or if inhaled, H301+H311+H331
Germ cell mutagenicity, (Category 2), H341
Carcinogenicity, (Category 1A), H350
Reproductive toxicity, (Category 2), H361f
Specific target organ toxicity, repeated exposure, (Category 2), H373
Hazardous to the aquatic environment, long term hazard, (Category 1), H410

2.2 Label elements
Labeling according to Regulation (EC) No.1272/2008

Pictogram
Signal word  Danger

Hazard Statement(s)
H301+H311+H331  Toxic if swallowed, in contact with skin or if inhaled
H341  Suspected of causing genetic defects
H350  May cause cancer
H361f  Suspected of damaging fertility
H373 May cause damage to organs through prolonged or repeated exposure
H410 Very toxic to aquatic life with long lasting effects

Precautionary Statement(s)
P201 Obtain special instructions before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P311 Call a POISON CENTER or doctor/physician.

2.3 Other Hazards
none

3 Composition/Information On Ingredients

3.1 Substances
Molecular Formula : C₇H₆O₄N₂
Molecular Weight : 182.13
CAS No. : 121-14-2
EC No. : 204-450-0

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-Dinitrotoluene</td>
<td>As Per EC Regulation 1272/2008 Acute Tox.oral. 3; Muta. 2; Carc. 1A, 1B;</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Repr. 2; STOT RE 2; Aquatic Chronic 1 H301+H311+H331; H341; H350; H361f;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H373; H410</td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the H-Statements and classification mentioned in this Section, see Section 16

4 First Aid Measures

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash with plenty of soap and water. Consult a physician.

In case of eye contact
Rinse immediately with plenty of water for at least 15 minutes. Consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

4.3 Indication of immediate medical attention and special treatment needed
No data available

5 Fire Fighting Measures
5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media
No data available.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOX)

5.3 Precautions for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary

5.4 Further information
No data available

6 Accidental Release Measures
6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into environment must be avoided.

6.3 Methods and materials for containment and cleaning up
Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see Section 13.

7 Handling and Storage
7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
**Recommended Storage Temperature**: Below 30°C

### 7.3 Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

### 8 Exposure Controls/Personal Protection

#### 8.1 Control parameters

Components with workplace control parameters

#### 8.2 Exposure controls

**Appropriate engineering controls**

Handle in accordance to general industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal protective equipment**

**Hygiene measure**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with the product.

**Eye/face protection**

Faceshield and safety goggles.

**Skin protection**

Handle with gloves.

**Body protection**

Complete suit protecting against chemicals.

**Respiratory protection**

Air-purifying respirators.

**Environment exposure controls**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### 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>Appearance</td>
<td>Yellow or orange to red to brown crystals or powder or chips.</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>Melting/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</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 density</td>
<td>No data available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
</tbody>
</table>
9.2 Other safety information
No data available

10 Stability and Reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Incompatible material

10.5 Incompatible materials
No data available

10.6 Hazardous decomposition products
Other decomposition products - refer section 5.2.
In the event of fire - refer section 5.

11 Toxicological Information

11.1 Information on toxicological effects

Acute toxicity
No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitisation
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
No data available

Specific target organ toxicity- single exposure
No data available

Specific target organ toxicity - repeated exposure
12 Ecological Information

12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 PBT and vPvB assessment
PBT and vPvB assessment not available Chemical safety assessment is not required

12.6 Other adverse effects
Discharge into the environment must be avoided.

13 Disposal Considerations

13.1 Waste treatments methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustive solvent and burn in chemical incinerator equipped with an afterburner and scrubber.

13.2 Contaminated packaging
Dispose of as unused product.

14 Transport Information

14.1 UN-No
ADNR : 3454  ADR : 3454  IATA_C : 3454  IATA_P : 3454  IMDG : 3454  RID : 3454

14.2 UN proper shipping name
ADNR  : Dinitrotoluenes, solid
ADR   : Dinitrotoluenes, solid
IATA_C: Dinitrotoluenes, solid
IATA_P: Dinitrotoluenes, solid
IMDG  : Dinitrotoluenes, solid
RID   : Dinitrotoluenes, solid

14.3 Transport hazard class(es)
14.4 Packaging group
ADNR : II    ADR : II    IATA_C : II    IATA_P : II    IMDG : II    RID : II

14.5 Environmental hazards
ADNR : No    ADR : No    IMDG : No    Marine Pollutant : No    IATA_C : No    IATA_P : No    RID : No

14.6 Special precautions for use
No data available

15 Regulatory Information
This safety datasheet complies with the requirements of Regulation(EC) No. 1907/2006.

15.1 Safety health and environment regulations/legislation specific for the substance or mixture
No data available

15.2 Chemical Safety Assessment
No data available

16 Other information
Text of H-Statements and EUH-Phrases mentioned in section 3
H301+H311+H331    Toxic if swallowed, in contact with skin or if inhaled
H341    Suspected of causing genetic defects
H350    May cause cancer
H361f    Suspected of damaging fertility
H373    May cause damage to organs through prolonged or repeated exposure
H410    Very toxic to aquatic life with long lasting effects
Acute Tox.oral. 3    Acute toxicity, oral, Category 3
Muta. 2    Germ cell mutagenicity, Category 2
Carc. 1A, 1B    Carcinogenicity, Category 1A, 1B
Repr. 2    Reproductive toxicity, Category 2
STOT RE 2    Specific target organ toxicity, repeated exposure, Category 2
Aquatic Chronic 1    Hazardous to the aquatic environment, long term hazard, Category 1

Further Information

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The information given in this safety data sheet is believed to be correct yet does not claim to be all inclusive. This document is intended only as a guide for appropriate precautionary handling of the material by properly trained individuals, information here being commensurate with the present state of our knowledge regarding the manner and conditions of use, handling, storage or disposal. The information provided herein shall not be considered as guarantee of the properties of the product. HiMedia Laboratories, shall not be held liable for any damage resulting from improper handling or contact with the above product. Unless explicitly stated on the product or in any of the documentation accompanying the product, it is intended for research or testing purpose only and is not to be used for any other purpose.