### N,N-DICYCLOHEXYL CARBODIIMIDE

**CAS No 538-75-0**

**MATERIAL SAFETY DATA SHEET**

**SDS/MSDS**

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

1.1 **Product identifiers**

   **Product name**
   N,N-Dicyclohexyl Carbodiimide

   **CAS-No.**
   538-75-0

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

   **Identified uses**
   Laboratory chemicals, Industrial & for professional use only.

1.3 **Details of the supplier of the safety data sheet**

   **Company**
   Central Drug House (P) Ltd
   7/28 Varadaan House
   New Delhi -110002
   INDIA

   **Telephone**
   +91 11 49404040

   **Email**
   care@cdhfinechemical.com

1.4 **Emergency telephone number**

   **Emergency Phone #**
   +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

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**SECTION 2: Hazards identification**

2.1 **Classification of the substance or mixture**

   **Classification according to Regulation (EC) No 1272/2008**
   Acute toxicity, Oral (Category 4), H302
   Acute toxicity, Dermal (Category 3), H311
   Serious eye damage (Category 1), H318
   Skin sensitisation (Category 1), H317

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

2.2 **Label elements**

   **Labelling according Regulation (EC) No 1272/2008**

   **Pictogram**

   ![Pictogram]

   **Signal word**
   Danger

   **Hazard statement(s)**
   H302 Harmful if swallowed.
   H311 Toxic in contact with skin.
   H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
Precautionary statement(s) Wear eye protection/ face protection.
P280 Wear protective gloves/ protective clothing.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P302 + P352 + P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
Supplemental Hazard Statements none

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients
3.1 Substances
Synonyms : DCC
Formula : C_{13}H_{22}N_2
Molecular weight : 206.33 g/mol
CAS-No. : 538-75-0
EC-No. : 208-704-1
Index-No. : 615-019-00-5

Hazardous ingredients according to Regulation (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dicyclohexylcarbodiimide</td>
<td>Acute Tox. 4; Acute Tox. 3; Eye Dam. 1; Skin Sens. 1; H302, H311, H318, H317</td>
<td>&lt;= 100 %</td>
</tr>
<tr>
<td>CAS-No.</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

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

SECTION 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 off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed
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 labelling (see section 2.2) and/or in section 11
4.3 Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures
5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Nitrogen oxides (NOx)

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available

SECTION 6: Accidental release measures
6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage
7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation 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 under inert gas. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection
8.1 Control parameters

8.2 Exposure controls
Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment
Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance Form: Crystalline powder
Colour: colourless

b) Odour No data available
c) Odour Threshold No data available
d) pH No data available
e) Melting point/freezing point Melting point/range: 34 - 35 °C - lit.
f) Initial boiling point and boiling range 122 - 124 °C at 8 hPa - lit.
g) Flash point 113 °C - closed cup
h) Evaporation rate No data available
i) Flammability (solid, gas) No data available
j) Upper/lower flammability or explosive limits No data available
k) Vapour pressure No data available
l) Vapour density No data available
m) Relative density No data available
n) Water solubility No data available
o) Partition coefficient: n-octanol/water No data available
p) Auto-ignition temperature No data available
q) Decomposition temperature No data available
r) Viscosity No data available
s) Explosive properties No data available
t) Oxidizing properties No data available

9.2 Other safety information
No data available
SECTION 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
   No data available

10.5 Incompatible materials
   Strong oxidizing agents

10.6 Hazardous decomposition products
   Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)
   Other decomposition products - No data available
   In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

   Acute toxicity
   LD50 Oral - Rat - 400 mg/kg(Dicyclohexylcarbodiimide)
   LC50 Inhalation - Rat - 6 h - 159 mg/m3(Dicyclohexylcarbodiimide)
   Vascular: Regional or general arteriolar or venous dilation. Skin and Appendages: Other: Hair.

   Skin corrosion/irritation
   No data available(Dicyclohexylcarbodiimide)

   Serious eye damage/eye irritation
   No data available(Dicyclohexylcarbodiimide)

   Respiratory or skin sensitisation
   No data available(Dicyclohexylcarbodiimide)

   Germ cell mutagenicity
   No data available(Dicyclohexylcarbodiimide)

   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(Dicyclohexylcarbodiimide)

   Specific target organ toxicity - single exposure
   No data available(Dicyclohexylcarbodiimide)

   Specific target organ toxicity - repeated exposure
   No data available

   Aspiration hazard
   No data available(Dicyclohexylcarbodiimide)

   Additional Information
   RTECS: FF2160000
Depending on the intensity and duration of exposure, effects may vary from mild irritation to severe destruction of tissue. May cause blindness. Symptoms may be delayed. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (Dicyclohexylcarbodiimide)

Liver - Irregularities - Based on Human Evidence (Dicyclohexylcarbodiimide)

SECTION 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 (Dicyclohexylcarbodiimide)

12.5 Results of PBT and vPvB assessment
   This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
   No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
   Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

Contaminated packaging
   Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
   ADR/RID: 2811    IMDG: 2811    IATA: 2811

14.2 UN proper shipping name
   ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (Dicyclohexylcarbodiimide)
   IMDG: TOXIC SOLID, ORGANIC, N.O.S. (Dicyclohexylcarbodiimide)
   IATA: Toxic solid, organic, n.o.s. (Dicyclohexylcarbodiimide)

14.3 Transport hazard class(es)
   ADR/RID: 6.1    IMDG: 6.1    IATA: 6.1

14.4 Packaging group
   ADR/RID: II    IMDG: II    IATA: II

14.5 Environmental hazards
   ADR/RID: no    IMDG Marine pollutant: no    IATA: no

14.6 Special precautions for user
   No data available
SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.