



**TECHNO PHARMCHEM**

An ISO 9001 : 2008 Certified Company

Registered Off. : 101-A, Deep Enclave, Pocket "D", Ashok Vihar, Phase-III, Delhi-110 052 (India)  
Corporate Off. : 152, Vardhman City Centre, Near Shakti Nagar Underbridge, Delhi-110052 (India)  
Works : Plot No.1022, Modern Industrial Estate, Bahadurgarh-124507, Haryana (India)  
Telephone : 0091 - 11 - 23646422 E-mail : tecpharm@gmail.com  
Website : www.technopharmchem.com

## CYCLOHEXANE MATERIAL SAFETY DATA SHEET

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifier

Product form : Substance  
CAS-No. : 110-82-7  
Product code : 38198, 38205, A-38205

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

##### 1.2.1. Relevant identified uses

Industrial/professional use spec : Industrial  
For professional use only  
Use of the substance/mixture : Laboratory Reagent

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the manufacturer of the safety data sheet

Techno Pharmchem  
Plot No.1022, Modern Industrial Estate,  
Bahadurgarh-124507, India  
info@technopharmchem.com

#### 1.4. Emergency telephone number

Emergency number: +91 11-43464909 (9:30am – 5.30pm)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

Classification according to regulation (EC) No. 1272/2008[CLP]

Flammable liquids, H226  
Category 2

Skin corrosion/irritation, H315  
Category 2

Specific target organ H336  
toxicity – Single exposure,

Category 3, Narcosis

Aspiration hazard, Category 1 H304

Hazardous to the aquatic H400  
environment – Acute Hazard,

Category 1

Hazardous to the aquatic H410  
environment – Chronic Hazard,

Category 1

Category 1

Category 1

Category 1

Category 1

Category 1

Full text of H- and EUH-statements: see section 16

### Adverse physicochemical, human health and environmental effects

May cause drowsiness or dizziness. Causes skin irritation.

May be fatal if swallowed and enters airways. Very toxic to aquatic life with long lasting effects.

### 2.2. Label elements

Labeling according to regulation (EC) No. 1272/2008 [CLP]

Signal word (CLP)	:	Danger
Hazard statements (CLP)	:	H226 - Flammable liquid and vapour. H304 - May be fatal if swallowed and enters airways. H315 - Causes skin irritation. H336 - May cause drowsiness or dizziness. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	:	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P273 - Avoid release to the environment. P301+P310 - IF SWALLOWED: Immediately call a doctor. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

### 2.3. Other hazards

Contains no PBT and/or vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Name	:	Cyclohexane
CAS No	:	110-82-7

### 3.2. Mixtures

Not applicable.

Full text of H-statements: see section 16.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

First-aid measures general	:	Call a physician immediately.
First – aid measures after inhalation	:	Remove person to fresh air and keep comfortable for breathing. Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.
First – aid measures after skin contact	:	If skin irritation occurs: Get medical advice/attention. Rinse skin with water/shower. Take off immediately all contaminated clothing.

- First – aid measures after eye contact : If eye irritation persists: Get medical advice/attention. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- First – aid measures after ingestion : Rinse mouth out with water. If you feel unwell, seek medical advice. Do not induce vomiting. Call a physician immediately.

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

- Symptoms/effects : May cause drowsiness or dizziness.
- Symptoms/injuries after inhalation : May cause drowsiness or dizziness.
- Symptoms/injuries after skin contact : Causes skin irritation. Irritation.
- Symptoms/injuries after eye contact : None under normal conditions.
- Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: FIRE FIGHTING MEASURES

#### 5.1. Extinguishing media

- Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>). Water spray. Dry powder. Foam. Carbon dioxide.
- 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.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

- Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.



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### 6.1.1. For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment  
Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel.  
Do not breathe vapours. Avoid contact with skin, eyes and clothing. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapours/spray.

### 6.1.2. For emergency responders

- Protective equipment : Protective gloves. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".  
Emergency procedures : All equipment used when handling the product must be grounded. Ventilate area. Evacuate unnecessary personnel. Stop leak if safe to do so.

### 6.2. Environmental precautions

Avoid release to the environment. Very toxic to aquatic life with long lasting effects.

### 6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage. Contain any spills with dikes or absorbents  
to prevent migration and entry into sewers or streams. Stop leak without risks if possible.  
Methods for cleaning up : Take up liquid spill into absorbent material. Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Notify authorities if product enters sewers or public waters.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precaution for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.  
Precautions for safe handling : No open flames. No smoking. Use only non-sparking tools. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Take precautionary measures against static

Hygiene measures : discharge. Wear personal protective equipment.  
Avoid contact with skin and eyes.  
Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse.  
Do not eat, drink or smoke when using this product.  
Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any compatibilities

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

Storage conditions : Keep in fireproof place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Incompatible materials : Heat sources

Packaging materials : Store always product in container of same material as original container.

### 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 : Wear respiratory protection.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Colourless.

Appearance : Clear liquid.

Molecular mass : 84.16 g/mol

Odour : gasoline like

Odour threshold : Not available

Melting Point : Not applicable

Freezing point : 4 - 7 °C

Boiling point : 80 – 81 °C

Lower explosion limit : 1.2 vol %

Upper explosion limit : 8.3 vol %

Flash point : -18 °C

Auto-ignition temperature	:	260 °C
Decomposition temperature	:	Not available
pH	:	Not available
Viscosity, kinematic	:	1.142 mm <sup>2</sup> /s
Viscosity, dynamic	:	0.89 mPa·s at 25 °C
Solubility	:	Water: Immiscible Ethanol: Miscible Acetone: Miscible
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Partition coefficient n-octanol/water (Log Pow)	:	3.44
Vapor pressure	:	78 mm Hg at 20°C
Vapour pressure at 50°C	:	Not available
Density	:	0.779 g/cm <sup>3</sup> at 20°C
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

## 9.2. Other Information

No additional information available

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Flammable liquid and vapour.

### 10.2. Chemical Stability

Stable under normal conditions

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Direct sunlight. Avoid contact with hot surfaces. Heat. No flames, no 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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Skin corrosion/irritation	:	Causes skin irritation
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitization	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
STOT-single exposure	:	May cause drowsiness or dizziness.
STOT-repeated exposure	:	Not classified
Aspiration hazard	:	May be fatal if swallowed and enters airways

#### **CYCLOHEXANE (CAS No.110-82-7)**

Viscosity, kinematic	1.142 mm <sup>2</sup> /s
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#### **11.2. Information on other hazards**

No additional information available

### **SECTION 12: ECOLOGICAL INFORMATION**

#### **12.1. Toxicity**

Ecology - general	:	Very toxic to aquatic life with long lasting effects.
Ecology – water	:	Very toxic to aquatic life with long lasting effects
Hazardous to the aquatic environment, short-term (acute)	:	Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	:	Very toxic to aquatic life with long lasting effects

#### **12.2. Persistence and degradability**

#### **CYCLOHEXANE (CAS No.110-82-7)**

Persistence and degradability	Rapidly degradable
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#### **12.3. Bio accumulative 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.
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## SECTION 14: TRANSPORT INFORMATION

### 14.1. UN Number

ADR/RID: - 1145

IMDG: - 1145

IATA: - 1145

### 14.2. UN proper shipping name

ADR/RID : CYCLOHEXANE

IMDG : CYCLOHEXANE

IATA : Cyclohexane

### 14.3. Transport hazard class (es)

ADR/RID: - 3

IMDG: - 3

IATA: - 3

### 14.4. Packaging group

ADR/RID: - II

IMDG: - II

IATA: - II

### 14.5. Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

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

Ensure all local, regional, national and/or international regulations are observed.

### 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.

H226 Highly flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

The information contained herein in good faith but makes no representations 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. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. We do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.