

CHAITANYA CHS, 2<sup>nd</sup> FLOOR, OFFICE # 206, SIDDHARTH NAGAR, S.V.ROAD, GOREGAON (W), MUMBAI 400062, MH, INDIA.  
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## MATERIAL SAFETY DATA SHEET (MSDS)

### CYCLOHEXANE LR

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

##### 1.1. Product identifier

Trade name : CYCLOHEXANE LR

Product code : SS0101902500

Identification of the product : Cyclohexane  
 CAS No :110-82-7  
 EC No :203-806-2  
 Annex No :601-017-00-1

Chemical formula : C<sub>6</sub>H<sub>12</sub>

##### 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 : F; R11  
 Xn; R65  
 R67  
 Xi; R38  
 N; R50-53

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

Health hazards : Specific Target Organ Toxicity - Single exposure - Narcotic effects - Category 3 -  
 Warning (CLP : STOT SE 3) H336  
 Aspiration hazard - Category 1 - Danger (CLP : Asp. Tox. 1) H304  
 Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315

Physical hazards : Flammable liquids - Category 2 - Danger (CLP : Flam. Liq. 2) H225

**MATERIAL SAFETY DATA SHEET (MSDS)**
**CYCLOHEXANE LR**
**2. Hazards identification -DSD (continued)**

**Environmental hazards** : Hazardous to the aquatic environment - Acute hazard - Category 1 - Warning (CLP : Aquatic Acute 1) H400  
 Hazardous to the aquatic environment - Chronic hazard - Category 1 - Warning (CLP : Aquatic Chronic 1) H410

**2.2. Label elements**
**Labelling EC 67/548 or EC 1999/45**
**Symbol(s)**

**Symbol(s)**

: F : Highly flammable  
 Xn : Harmful  
 N : Dangerous for the environment

**R Phrase(s)**

: R11 : Highly flammable.  
 R38 : Irritating to skin.  
 R65 : Harmful : may cause lung damage if swallowed.  
 R67 : Vapours may cause drowsiness and dizziness.  
 R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S Phrase(s)**

: S2 : Keep out of the reach of children.  
 S9 : Keep container in a well-ventilated place.  
 S16 : Keep away from sources of ignition - No smoking.  
 S25 : Avoid contact with eyes.  
 S33 : Take precautionary measures against static discharges.  
 S51 : Use only in well-ventilated areas.  
 S60 : This material and its container must be disposed of as hazardous waste.  
 S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.  
 S62 : If swallowed, do not induce vomiting : seek medical advice immediately and show this container or label.

**Contains**

: Cyclohexane

**Labelling Regulation EC 1272/2008 (CLP)**
**Hazard pictograms**

**Signal words**

: Danger

**Hazard statements**

: H225 : Highly 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.

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## MATERIAL SAFETY DATA SHEET (MSDS)

### CYCLOHEXANE LR

#### 2. Hazards identification -DSD (continued)

##### 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** : P240: Ground/bond container and receiving equipment.  
P241: Use explosion-proof electrical, ventilating, lighting, ..., equipment.  
P210: Keep away from heat, sparks, open flames or hot surfaces. - No smoking.  
P280: Wear protective gloves, protective clothing, eye protection, face protection.  
P271: Use only outdoors or in a well-ventilated area.  
P261: Avoid breathing dust, fume, gas, mist, vapours, spray.  
P273: Avoid release to the environment.  
P233: Keep container tightly closed.  
P264: Wash thoroughly after handling.
- **Response** : P301+P310: IF SWALLOWED : Immediately call a POISON CENTER or doctor.  
P302+P352: IF ON SKIN : Wash with plenty of soap and water.  
P332+P313: If skin irritation occurs : Get medical advice.  
P391: Collect spillage.  
P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.  
P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.  
P363: Wash contaminated clothing before reuse.  
P370+P378: In case of fire: Use for extinction.
- **Storage** : P403+P233: Store in well-ventilated place. Keep container tightly closed.  
P403+P235: Store in well-ventilated place. Keep cool.  
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** : Cyclohexane

#### 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** : Cyclohexane  
 CAS No :110-82-7  
 EC No :203-806-2  
 Annex No :601-017-00-1  
 Substance.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Cyclohexane	100 %	110-82-7	203-806-2	601-017-00-1	----	F; R11 Xn; R65 R67 Xi; R38 N; R50-53 ----- Flam. Liq. 2 _ H225 Asp. Tox 1 _ H304 Skin Irrit. 2 _ H315 STOT SE 3 _ H336 Aquatic Acute 1 _ H400

**MATERIAL SAFETY DATA SHEET (MSDS)**
**CYCLOHEXANE LR**
**3. Composition/information on ingredients (continued)**

Aquatic Chronic 1 \_ H410

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** : Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
- Skin contact** : Wash contaminated clothing before reuse. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs : Specific treatment (see on this label). Get medical advice.
- Eye contact** : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- Ingestion** : Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Rinse mouth.

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

- Symptoms relating to use** : May be fatal if swallowed and enters airways.  
 Causes skin irritation.  
 May cause drowsiness or dizziness.

**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**

- Flammable class** : Highly flammable liquid and vapour.
- 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.

**MATERIAL SAFETY DATA SHEET (MSDS)**
**CYCLOHEXANE LR**
**5. Fire-fighting measures (continued)**

**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.  
 Avoid breathing dust, fume, gas, mist, vapours, spray.

**Technical measures** : Use special care to avoid static electric charges.

**Special precautions** : Remove ignition sources. No naked lights. No smoking.

**For non-emergency personnel** : Evacuate unnecessary personnel.

**6.2. Environmental precautions**

**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** : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. 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** : Handle empty containers with care because residual vapours are flammable. Wash thoroughly after handling.  
 Use only outdoors or in a well-ventilated area.

**Technical protective measures** : Provide good ventilation in process area to prevent formation of vapour.  
 Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, lighting, ..., equipment.

**Special precautions** : No naked lights. No smoking.  
 Avoid breathing dust, fume, gas, mist, vapours, spray.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage** : Keep only in the original container in a cool, well ventilated place. Keep in fireproof place. Ground/bond container and receiving equipment. Keep container tightly closed.

**MATERIAL SAFETY DATA SHEET (MSDS)**
**CYCLOHEXANE LR**
**7. Handling and storage (continued)**

Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.

**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** : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.  
Wear respiratory protection.

• **Hand protection** : Wear protective gloves.

• **Skin protection** : Wear suitable protective clothing.

• **Eye protection** : Chemical goggles or safety glasses.

• **Others** : When using, do not eat, drink or smoke.

**8.2. Control parameters**

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** : Liquid.

**Colour** : Clear Colorless

**Odour** : Characteristic ether like odour

**Odour threshold** : No data available.

**pH value** : No data available.

**Melting point [°C]** : 4 - 7 °C

**Decomposition point [°C]** : N/A

**Critical temperature [°C]** : N/A

**Auto-ignition temperature [°C]** : 260 °C

**Flammability (solid, gas)** : Highly flammable liquid and vapour.  
Extremely flammable.

**Flash point [°C]** : (-18 )°C

**Boiling point [°C]** : 80.7 °C

**Initial boiling point [°C]** : N/A

**Final boiling point [°C]** : N/A

**MATERIAL SAFETY DATA SHEET (MSDS)**
**CYCLOHEXANE LR**
**9. Physical and chemical properties (continued)**

Evaporation rate	: 2,6
Vapour pressure [20°C]	: 102.7 hPa at 20°C
Vapour pressure mm/Hg	: N/A
Vapour density	: N/A
Density [g/cm <sup>3</sup> ]	: 0,779
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 <sup>2</sup> /s]	: N/A

**9.2. Other information**

Explosive properties	: N/A
Explosion limits - upper [%]	: 9%
Explosion limits - lower [%]	: 1%
Oxidising properties	: No data available.

**10. Stability and reactivity**
**10.1. Reactivity**

Reactivity	: Not established.
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**10.2. Chemical stability**

Chemical stability	: Stable under recommended storage conditions.
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**10.3. Possibility of hazardous reactions**

Hazardous reactions	: Not established.
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**10.4. Conditions to avoid**

Conditions to avoid	: Direct sunlight. Extremely high or low temperatures. Open flame.
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**10.5. Incompatible materials**

Materials to avoid	: Strong acids. Strong bases.
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**10.6. Hazardous decomposition products**



**MATERIAL SAFETY DATA SHEET (MSDS)**
**CYCLOHEXANE LR**
**10. Stability and reactivity (continued)**

**Hazardous decomposition products** : Fumes. Carbon monoxide. Carbon dioxide.  
May release flammable gases.

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

- **Inhalation** : May be fatal if swallowed and enters airways.
- **Dermal** : Based on available data, the classification criteria are not met.
- **Ingestion** : May be fatal if swallowed and enters airways.

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

**Irritation** : Causes skin irritation.

**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** : May cause drowsiness or dizziness.

**STOT-repeated exposure** : Based on available data, the classification criteria are not met.

**Aspiration hazard** : May be fatal if swallowed and enters airways.

**12. Ecological information**
**12.1. Toxicity**

**Toxicity information** : Very 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.



**MATERIAL SAFETY DATA SHEET (MSDS)**
**CYCLOHEXANE LR**
**12. Ecological information (continued)**
**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** : Handle empty containers with care because residual vapours are flammable.  
 Hazardous waste due to toxicity.

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

**Proper shipping name** : CYCLOHEXANE  
**UN N°** : 1145  
**H.I. nr** : 33  
**ADR - Class** : 3  
**Labelling - Transport** : 3 : Flammable liquid.



**ADR - Classification code** : F1  
**ADR - Group** : II  
**ADR - Packing instructions** : P001 R001  
**ADR - Limited Quantity** : 1 L  
**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** : CYCLOHEXANE

**MATERIAL SAFETY DATA SHEET (MSDS)**
**CYCLOHEXANE LR**
**14. Transport information (continued)**

UN N°	: 1145
IMO-IMDG - Class or division	: 3 : Flammable liquid.
IMO-IMDG - Packing group	: II
IMO-IMDG - Packing instructions	: P001
IMO-IMDG - Limited quantities	: 1 L
IMO-IMDG - Marine pollution	: Yes
EMS-Nr	: F-E S-D

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

Proper shipping name	: CYCLOHEXANE
UN N°	: 1145
IATA - Class or division	: 3 : Flammable liquid.
IATA - Packing group	: II
IATA - Passenger and Cargo Aircraft	: ALLOWED
- Passenger and Cargo - Packing instruction	: 353
- Passenger and Cargo - Maximum Quantity/Packing	: 5 L
IATA - Cargo only	: ALLOWED
- Cargo only - Packing instruction	: 364
- Cargo only - Maximum Quantity/Packing	: 60 L
IATA - Limited Quantities	: 1 L
ERG-Nr	: 3H

**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	: Annex XVII With the exception of those listed below: 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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**MATERIAL SAFETY DATA SHEET (MSDS)**

**CYCLOHEXANE LR**

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

**DISCLAIMER:**

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation 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.

**End of document**