



## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Identification

#### 1.1 Product identifiers

Product Name : Dicyclohexylamine

Cat No.: A15671

CAS No. : 101-83-7

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

Recommended uses : Laboratory chemicals

Uses advised against: Food, drug, pesticide or biocidal product use.

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

Company : Krishna Solvechem Limited.  
B/503, Sahayog, S. V. Road,  
Kandivali (West), Mumbai – 400067. India.

Telephone : +91-22-6123 0222

Email : exports@kscl.co.in

#### 1.4 Emergency telephone number

Emergency Phone : +91-8657457330

### SECTION 2: Hazards identification

#### 2.1 Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity	(Category 3)
Acute dermal toxicity	(Category 3)
Skin Corrosion/Irritation	(Category 1 B)
Serious Eye Damage/Eye Irritation	(Category 1)
Specific target organ toxicity (single exposure)	(Category 3)
Target Organs - Respiratory system.	

#### 2.2 Label elements

Pictogram :



Signal word Danger

Hazard statement (s) Causes severe skin burns and eye damage



**Precautionary statement (s)**

**Prevention**

Toxic if swallowed or in contact with skin  
May cause respiratory irritation

Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not eat, drink or smoke when using this product  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area

**Inhalation :**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell

**IF ON SKIN (or hair):**

If skin irritation occurs: Get medical advice/attention  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
Wash contaminated clothing before reuse

**Eyes:**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention

**Ingestion:**

Rinse mouth. Do NOT induce vomiting

**Storage:**

Store locked up Store in a well-ventilated place.  
Keep container tightly closed

**Disposal:**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Very toxic to aquatic life with long lasting effects



### SECTION 3: Composition / information on ingredients

#### 3.1

Component	CAS-No	Weight %
Dicyclohexylamine	101-83-7	>95

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

<b>General Advice:</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>If inhalation :</b>	If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh air. Immediate medical attention is required.
<b>In case of skin contact :</b>	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
<b>In case of eye contact :</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion :</b>	Do NOT induce vomiting. Call a physician or poison control center immediately.
<b>4.2 Most important symptoms and effects :</b>	Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation
<b>4.3 Notes to Physician :</b>	Treat symptomatically

### SECTION 5: Firefighting effects

#### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Dry chemical, dry sand and alcohol resistant foam.
<b>Unsuitable Extinguishing Media :</b>	No information available
<b>5.2 Flash Point :</b>	103 °C / 217.4 °F
<b>Method :</b>	No information available



<b>Autoignition Temperature:</b>	240 °C / 464 °F								
<b>Explosion Limits:</b>									
<b>Upper</b>	4.6 vol %								
<b>Lower</b>	0.8 vol %								
<b>Sensitivity to Mechanical Impact</b>	No information available								
<b>Sensitivity to Static Discharge</b>	No information available								
<b>Specific Hazards Arising from the Chemical :</b>	Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Do not allow run-off from fire-fighting to enter drains or water courses.								
<b>Hazardous Combustion Products :</b>	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Nitrogen oxides								
<b>5.4 Protective Equipment and Precautions for Firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.								
<b><u>NFPA:</u></b>	<table border="1"> <thead> <tr> <th>Health</th> <th>Flammability</th> <th>Instability</th> <th>Physical hazards</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>1</td> <td>0</td> <td>N/A</td> </tr> </tbody> </table>	Health	Flammability	Instability	Physical hazards	3	1	0	N/A
Health	Flammability	Instability	Physical hazards						
3	1	0	N/A						

## SECTION 6: Accidental release measures

<b>6.1 Personal precautions, protective equipment and emergency procedures</b>	Ensure adequate ventilation. Use personal protective equipment as required. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
<b>6.2 Environmental precautions</b>	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.
<b>6.3 Methods and materials for containment and cleaning up</b>	Keep in suitable, closed containers for disposal. Soak up with inert absorbent material.

## SECTION 7: Handling and storage

<b>7.1 Precautions for safe handling</b>	Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.
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## 7.2 Conditions for safe storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Incompatible Materials. Strong oxidizing agents. Acids. Acid anhydrides. Acid chlorides. Chloroformates. Carbon dioxide (CO<sub>2</sub>).

## SECTION 8: Exposure controls/personal protection

### 8.1 Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### Engineering Measures

Use only under a chemical fume. Ensure that eyewash stations and safety showers are close to the workstation location.

### 8.2 Exposure controls

#### Personal protective equipment -

##### Eye / Face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

##### Skin protection and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

##### Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

##### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice..

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Colorless light yellow Liquid
b) Odour	Fishy
c) Odour Threshold	No information available
d) pH	11 1 g/l aq.sol
e) Melting point / freezing point	-2 °C / 28.4 °F
f) Initial boiling point and	256 °C / 492.8 °F @ 760 mmHg



<b>boiling range</b>	
<b>g) Flash point</b>	103 °C / 217.4 °F
<b>h) Evaporation rate</b>	No information available
<b>i) Flammability (solid, gas)</b>	Not applicable
<b>j) Upper/lower flammability or explosive limits</b>	Upper : 4.6 vol % Lower : 0.8 vol %
<b>k) Vapour pressure</b>	7.521 Pa @ 25°C
<b>l) Vapour density</b>	6.25 (Air = 1.0)
<b>m) Specific Gravity</b>	0.910
<b>n) Solubility</b>	0.8 g/l water (20°C)
<b>o) Partition coefficient: n octanol/water</b>	No data available
<b>p) Auto-ignition temperature</b>	240 °C / 464 °F
<b>q) Decomposition temperature</b>	No information available
<b>r) Viscosity</b>	7.3 mPa.s @ 20°C
<b>s) Molecular formula</b>	C12 H23 N
<b>t) Molecular Weight</b>	181.32

### SECTION 10: Stability and Reactivity

<b>10.1 Reactive Hazard :</b>	None known, based on information available
<b>10.2 Chemical stability :</b>	Stable under normal conditions.
<b>10.3 Possibility of hazardous reactions :</b>	None under normal processing.
<b>10.4 Conditions to avoid :</b>	Excess heat. Incompatible products.
<b>10.5 Incompatible materials:</b>	Strong oxidizing agents, Acids, Acid anhydrides, Acid chlorides, Chloroformates, Carbon dioxide (CO <sub>2</sub> )
<b>10.6 Hazardous decomposition products :</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides
<b>10.7 Hazardous Polymerization</b>	Hazardous polymerization does not occur



## SECTION 11: Toxicological information

### 11.1

#### Information on toxicological effects

#### Acute toxicity:

#### Product Information:

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Dicyclohexyl amine	LD50 = 373 mg/kg ( Rat )	>200 - <316 mg/kg (Rat)	>1.4 mg/L/6h (Rat)

**Toxicologically Synergistic Products** No information available

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Irritation :** Causes burns by all exposure routes

**Sensitization:** No information available

**Carcinogenicity :** The table below indicates whether each agency has Any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Dicyclohexyl amine	101-83-7	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects:** Not mutagenic in AMES Test

**Reproductive Effects:** No information available.

**Developmental Effects :** No information available.

**Teratogenicity:** No information available.

**STOT - single exposure :** Respiratory system

**STOT - repeated exposure:** None known

**Aspiration hazard :** No information available.

**Symptoms / effects, both acute and delayed:** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

**Endocrine Disruptor Information :** No information available

**Other Adverse Effects :** The toxicological properties have not been fully investigated.



## SECTION 12: Ecological information

### 12.1

#### Ecotoxicity:

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Dicyclohexylamine	Not listed	LC50: = 62 mg/L, 96h static (Brachydanio rerio)	Not listed	EC50: 8 mg/L/48h

**12.2 Persistence and degradability:** Persistence is unlikely

**Bioaccumulation/ Accumulation** No information available

**12.3 Mobility:** Will likely be mobile in the environment due to its water solubility. Log pow : 3.5

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

### 14.1 UN number :

DOT : UN2565                      TDG : UN2565  
IATA : UN2565                    IMDG : UN2565

### 14.2 UN proper shipping name

**DOT :** DICYCLOHEXYLAMINE                      **TDG :** DICYCLOHEXYLAMINE  
**IMDG :** DICYCLOHEXYLAMINE                    **IATA :** DICYCLOHEXYLAMINE

**14.3 Transport hazard class(es)**      DOT: 8                      TDG: 8                      IMDG: 8                      IATA: 8

**14.4 Packaging group:**                      DOT: III                      TDG: III                      IMDG: III                      IATA: III

## SECTION 15: Regulatory information

### 15.1 United states of America Inventory:

Component	CAS-No	TSCA	TSCA Inventory notification Active/Inactive	TSCA - EPA Regulatory Flags
Dicyclohexyl amine	101-83-7	X	ACTIVE	-

**Legend:**







DOT Marine Pollutant N  
 DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** - This product does not contain the any DHS Chemicals.

**Other International Regulations**

**Mexico – Grade** No information available

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Dicyclohexyl amine	101-83-7	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Dicyclohexyl amine	101-83-7	Not applicable	Not applicable	Not applicable	Not applicable

**SECTION 16: Other information**

**16.1 Prepared By:** Regulatory affairs  
 Krishna Solvechem  
 Limited  
**Email:** exports@kscl.co.in  
**Creation Date:** 23-Mar-2012  
**Revision Date:** 19-Apr-2023  
**Print Date:** 19-Apr-2023  
**Revision Summary:** This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 C F R 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**16.2 Disclaimer:**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

