

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Cyclohexene, 50 ml**

Print date: 14.04.2015

Product code: 9991247

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Cyclohexene, 50 ml

CAS No: 110-83-8

EC No: 203-807-8

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

Laboratory chemicals

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

Company name: CONATEX-DIDACTIC Lehrmittel GmbH

Street: Im Forstgarten 1

Place: D-66459 Kirkel

Internet: www.conatex.com

**Supplier**

Company name: Carbolution Chemicals GmbH

Street: Im Stadtwald, Gebäude A1.2

Place: D-66123 Saarbrücken

Contact person: Dr. Michael Bauer

Telephone: +49 (0)681 302-71232

e-mail: michael.bauer@carbolution-chemicals.de

Internet: www.carbolution-chemicals.de

**1.4. Emergency telephone number:**

+49 (0)681 302-71232

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: F - Highly flammable, Xn - Harmful

R phrases:

Highly flammable.

Harmful in contact with skin and if swallowed.

Harmful: may cause lung damage if swallowed.

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

Hazard categories:

Flammable liquid: Flam. Liq. 2

Acute toxicity: Acute Tox. 4

Acute toxicity: Acute Tox. 4

Aspiration hazard: Asp. Tox. 1

Hazard Statements:

Highly flammable liquid and vapour.

Harmful in contact with skin.

Harmful if swallowed.

May be fatal if swallowed and enters airways.

**2.2. Label elements****Hazardous components which must be listed on the label**

Cyclohexene

Signal word: Danger

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Pictograms:

GHS02-GHS07



#### Hazard statements

H225 Highly flammable liquid and vapour.  
 H302+H312 Harmful if swallowed or in contact with skin.

#### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P240 Ground/bond container and receiving equipment.  
 P243 Take precautionary measures against static discharge.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Sum formula: C<sub>6</sub>H<sub>10</sub>  
 Molecular weight: 82,14

#### Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
203-807-8	Cyclohexene	100 %
110-83-8	F - Highly flammable, Xn - Harmful R11-21/22-65	
	Flam. Liq. 2, Acute Tox. 4, Acute Tox. 4, Asp. Tox. 1; H225 H302 H312 H304	

Full text of R-, H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### After inhalation

Provide fresh air.

##### After contact with skin

Wash with plenty of water. Change contaminated clothing. Medical treatment necessary.

##### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

##### After ingestion

Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

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

No data available

### SECTION 5: Firefighting measures

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#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>). Foam. Extinguishing powder.

#### **5.2. Special hazards arising from the substance or mixture**

Combustible. Vapours may form explosive mixtures with air.

#### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

#### **Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### **SECTION 6: Accidental release measures**

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

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

#### **6.2. Environmental precautions**

Do not allow uncontrolled discharge of product into the environment. Explosion hazard.

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

##### **Advice on protection against fire and explosion**

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapours may form explosive mixtures with air.

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

##### **Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition. - No smoking.

##### **Advice on storage compatibility**

Do not store together with: Material, rich in oxygen, oxidizing.

### **SECTION 8: Exposure controls/personal protection**

#### **8.1. Control parameters**

#### **8.2. Exposure controls**

##### **Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

##### **Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

##### **Eye/face protection**

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN):

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DIN EN 166

#### Hand protection

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

#### Skin protection

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

#### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

## SECTION 9: Physical and chemical properties

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

Physical state:	liquid
Colour:	colourless
Odour:	No data available

#### Test method

pH-Value:	No data available
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#### Changes in the physical state

Initial boiling point and boiling range:	83 °C
Sublimation point:	No data available
Softening point:	No data available
Flash point:	-12 °C

#### Flammability

Solid:	No data available
Gas:	No data available
Lower explosion limits:	1 vol. %
Upper explosion limits:	5 vol. %
Ignition temperature:	No data available

#### Auto-ignition temperature

Solid:	No data available
Gas:	No data available

Vapour pressure: (at 20 °C)	213 hPa
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Vapour pressure:	No data available
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Density:	No data available
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Water solubility:	No data available
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Partition coefficient:	3,27
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Viscosity / dynamic:	No data available
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Viscosity / kinematic:	No data available
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Flow time:	No data available
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Vapour density:	2,84
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Evaporation rate:	No data available
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Solvent separation test:	No data available
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Solvent content:	No data available
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#### 9.2. Other information

Solid content:

No data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available

#### 10.3. Possibility of hazardous reactions

No data available

#### 10.4. Conditions to avoid

Keep away from heat. Ignition hazard.

#### 10.5. Incompatible materials

Oxidizing agents, strong.

#### 10.6. Hazardous decomposition products

No data available

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Toxicocinetics, metabolism and distribution

Toxicological data are not available.

##### Acute toxicity

Acute toxicity, oral. Acute toxicity, dermal.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
110-83-8	Cyclohexene				
	oral	ATE	500 mg/kg		
	dermal	ATE	1100 mg/kg		

##### Irritation and corrosivity

No data available

##### Sensitising effects

No data available

##### Severe effects after repeated or prolonged exposure

No data available

##### Carcinogenic/mutagenic/toxic effects for reproduction

Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

##### Specific effects in experiment on an animal

No data available

##### Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

#### Practical experience

##### Observations relevant to classification

No data available

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## 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

### 12.5. Results of PBT and vPvB assessment

No data available

### 12.6. Other adverse effects

No data available

### Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Advice on disposal

Dispose of waste according to applicable legislation.

#### Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

#### Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

#### Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances  
Classified as hazardous waste.

#### Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

### Land transport (ADR/RID)

<u>14.1. UN number:</u>	UN2256
<u>14.2. UN proper shipping name:</u>	CYCLOHEXENE
<u>14.3. Transport hazard class(es):</u>	3
<u>14.4. Packing group:</u>	II
Hazard label:	3

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Classification code: F1  
Limited quantity: 1 L  
Transport category: 2  
Hazard No: 33  
Tunnel restriction code: D/E

#### Other applicable information (land transport)

E2

#### Inland waterways transport (ADN)

**14.1. UN number:** UN2256  
**14.2. UN proper shipping name:** CYCLOHEXENE  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Classification code: F1  
Limited quantity: 1 L

#### Other applicable information (inland waterways transport)

E2

#### Marine transport (IMDG)

**14.1. UN number:** UN2256  
**14.2. UN proper shipping name:** CYCLOHEXENE  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Special Provisions: -  
Limited quantity: 1 L  
EmS: F-E, S-D

#### Other applicable information (marine transport)

E2

#### Air transport (ICAO)

**14.1. UN number:** UN2256  
**14.2. UN proper shipping name:** CYCLOHEXENE  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Limited quantity Passenger: 1 L  
IATA-packing instructions - Passenger: 353  
IATA-max. quantity - Passenger: 5 L  
IATA-packing instructions - Cargo: 364  
IATA-max. quantity - Cargo: 60 L

#### Other applicable information (air transport)

E2

: Y341

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

### SECTION 15: Regulatory information

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#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### EU regulatory information

##### Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

##### National regulatory information

Water contaminating class (D): 3 - highly water contaminating

#### SECTION 16: Other information

##### Relevant R-phrases (Number and full text)

- |       |  |
|-------|--|
| 11    | Highly flammable.                              |
| 21/22 | Harmful in contact with skin and if swallowed. |
| 65    | Harmful: may cause lung damage if swallowed.   |

##### Relevant H- and EUH-phrases (Number and full text)

- |           |   |
|-----------|---|
| H225      | Highly flammable liquid and vapour.           |
| H302      | Harmful if swallowed.                         |
| H302+H312 | Harmful if swallowed or in contact with skin. |
| H304      | May be fatal if swallowed and enters airways. |
| H312      | Harmful in contact with skin.                 |