

**Material Data Safety Sheet**  
According to (EG) Nr. 1907/2006 (REACH)

Updated:12.04.2011

**Cyclohexene Art. Nr. 31236**

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

Product name : **Cyclohexene**

Product Number : 31236

**Company:**

Gatt-Koller GmbH

Swarovskistrasse 74

A-6067 Absam

Phone: 0043-5223-44216-0

Fax: 0043-5223-43216

Emergency Phone: 0049-551-19240

**2. HAZARDS IDENTIFICATION**

**Label elements**

**Pictogram**



**Signal Word DANGER**

**Hazard statement(s)**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

**Precautionary statement(s)**

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P262 Do not get in eyes, on skin, or on clothing.

P273 Avoid release to the environment.

P501 Dispose of contents/ container to an approved waste disposal plant.

**(67/548/EWG oder 1999/45/EG)**

INDICATION OF DANGER: F (Highly flammable) ,Xn (Harmful)

R-PHRASES: 11-21/22 Highly flammable. Harmful in contact with skin and if swallowed.

**3 - Composition/Information on Ingredients**

Product Name CAS # EC no Annex I Index Number

CYCLOHEXENE,

Synonyms: 1.2.3.4-Tetrahydrobenzene

CAS:110-83-8

Molecular weight:82.15

EC number:203-807-8

Formula:C6H10

**4 - First Aid Measures**

**AFTER INHALATION**

Fresh air.If necessary, apply mechanical ventilation or mouth-to mouth resuscitation. Keep airways free.

**AFTER SKIN CONTACT**

Wash off with plenty of water. Remove contaminated clothing.

**AFTER EYE CONTACT**

Rinse out with plenty of water with the eyelid held wide open. Immediately summon eye specialist

**AFTER INGESTION**

Plenty of water to drink. Avoid vomiting (risk of aspiration).

Subsequently administer: Activated charcoal (20-40g in 10% slurry). Sodium sulphate (1 tablespoon/ ¼ l water). Immediately summon doctor. No milk. No castor oil. No alcohol.

**5 - Fire Fighting Measures****EXTINGUISHING MEDIA**

Suitable: Powder, foam

**SPECIAL RISKS**

Combustible. Vapours heavier than air. Keep away from sources of ignition. Formation of explosive mixtures possible with air. Take measures to prevent electrostatic charging.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**6 - Accidental Release Measures****PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL**

Do not inhale vapours/ aerosols. Avoid substance contact. Ensure supply of fresh air in enclosed rooms

**ENVIRONMENTAL PRECAUTION(S)**

Do not allow to enter sewerage system; danger of explosion!

**METHODS FOR CLEANING UP**

Take up with liquid-absorbent material. Forward for disposal. Clean up.

**7 - Handling and Storage****HANDLING**

Take measures to prevent electrostatic charging.

**STORAGE**

Tightly closed in a well-ventilated place, away from sources of ignition and heat. Storage temperature: no restrictions.

Away from combustible substances.

Do not store with: comburent substances.

**8 - Exposure Controls / Personal Protection**

**EXPOSURE limit values:** (MAK,Germany): 300ml/m<sup>3</sup>

**EXPOSURE CONTROLS:**

Occupational exposure controls: the personal protective equipment must be selected according to the working place, based on the concentration and amount of the dangerous substance. The supplier should indicate the stability of the personal protective equipment to chemical reagents

**Respiratory Protection:** When vapours/ aerosols are generated.

**Hand Protection:** Compatible chemical-resistant gloves.

**Eye Protection:** Chemical safety goggles.

**Industrial hygiene:** Work under hood. Do not inhale substance. Avoid generation of Vapours/ aerosols. Change contaminated clothing. Wash hands after working with substance.

**9 - Physical and Chemical Properties**

Appearance Physical State: Clear liquid

Color: Colorless

Odour: characteristic

Property Value At Temperature or Pressure

pH value: (0,2 g/l H<sub>2</sub>O, 20°C) 7-8

BP/BP Range 83°C

Flash Point : -17°C

Explosion Limits (low): 1,2%Vol

Explosion Limits (high): 7,7 %Vol

Vapour Pressure(20°C) 90hPa

Density(20°C): 0,81 g/cm<sup>3</sup>

Partition Coefficient n-octanol/water: log P (o/w): 3,27

Viscosity:

Relative Vapour Density: 2,8

Refractive index: (n 20°C/D) 1,446

Melting temperature: -104°C

Ignition temperature: 310°C

Solubility Solubility in Water (20°C): 0,21 g/l

## 10 - Stability and Reactivity

### STABILITY

Conditions to be avoided: Heating

Substances to be avoided: oxygen (formation of peroxides possible)

HAZARDOUS DECOMPOSITION PRODUCTS: No information available

Further information: Highly flammable with various plastics, rubber.

Explosive with air in avaporous/ gaseous state

## 11 - Toxicological Information

### ACUTE TOXICITY

LD 50(rat,rat): 1940 mg/kg

LC 50 (inhalation, rat):> 21,6 mg/l / 4h

LD 50 (dermal, rabbit):> 200mg/ kg

Specific symptoms in animal studies:

Eye irritation test (rabbit: No irritation

Skin irritation test (rabbit): No irritation

Subacute to chronic toxicity:

Mutagenicity:

Bacterian mutagenicity: Ames- test: negative

Further toxicological information:

After inhalation: irritating to respiratory system, coughing, nausea, vomiting, headache, dizziness, drowsiness, inebriation, excitation

After skin Contact: slight irritation.

After eye Contact: slight irritation.

After ingestion: gastrointestinal symptoms (vomiting, diarrhoea, pain, spasms), unconsciousness, respiratory paralysis, collapse

Further information:

Further hazardous properties cannot be excluded.

The product should be handled with care usual when dealing with chemicals

## 12 - Ecological Information

Ecotoxic effect: Endangers drinking- water supplies if allowed to enter soil and/or waters in large quantities. Substance floats on the water surface.

Fish toxicity: P.reticulata CL 50: 7,1 mg/l /96h

Daphnia toxicity: Daphnia magna EC50: 720 mg/l /24h

Algeal toxicity: Sc.quadricepsa IC5:> 400mg/l

Bacterial toxicity: Ps putida EC0: 17mg/l /16h

Protozoa toxicity: E. sulcatum EC0:> 500mg/l

Mobility: log P(o/w): 3,27

Bioaccumulative potential: Bioaccumulation potential is expected to be high (log P (o/w)> 3

Persistence and degradability: Non biodegradable.

Further ecologic data:

Do not allow to enter waters, waste water o soil

## 13 - Disposal Considerations

Product: There are no uniform EU regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EU member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste

Packaging: Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or cycled of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this

## 14 - Transport Information

RID/ADR

UN#: 2256

Class: 3

PG: II

Correct technical name: CYCLOHEXENE

Sea transport:

UN#: 2256

IMDG class: 3 II

EmS- Number: F-E S-D  
Correct technical name: CYCLOHEXENE  
Air transport:  
UN#: 2256  
IATA/ICAO class: 3 II  
PG: II  
Correct technical name: CYCLOHEXENE

## 15 - Regulatory Information

### Label elements



### Signal Word DANGER

#### Hazard statement(s)

H225 Highly flammable liquid and vapour.  
H302 Harmful if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H411 Toxic to aquatic life with long lasting effects.

#### Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P262 Do not get in eyes, on skin, or on clothing.  
P273 Avoid release to the environment.  
P501 Dispose of contents/ container to an approved waste disposal plant.

**EC CLASSIFICATION:** This product is not included in the dangerous substances index with its corresponding EC index number, so it has been classified according to the annex VI of the 2001/59/EC directive

**INDICATION OF DANGER:** F (Highly flammable) ,Xn (Harmful)

**R-PHRASES:** 11-21/22 Highly flammable. Harmful in contact with skin and if swallowed.

**S-PHRASES:** 16-23.2-51-33-36/37-46

Keep away from sources of ignition - no smoking. Do not breathe vapour. Use only in well ventilated areas. Take precautionary measures against static discharges. Wear suitable protective clothing and gloves. If swallowed seek medical advice immediately and show this container or label

### EC-Index-No:

**Cyclohexene , stabilized with approx.100 ppm of 2,6-Di-tert-butyl-4-methylphenol (BHT)**

### German regulations:

Water pollution class 1 (slightly polluting substance) VwVwS Anh. 2 Ident.Nr. 65

Storage class VCI 3 A

## 16 - Other Information

### WARRANTY

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. Gatt-Koller GmbH, shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

### Gatt-Koller GmbH

**Swarovskistrasse 74**

**A-6067 Absam**

**Tel.: 0043-5223-44216-0 Fax.: 0043-5223-43216a**