

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Dicyclohexylamine

1.1. Catalog No.:

690711

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

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1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
- skull and crossbones
- Acute Tox. 3 H301 Toxic if swallowed.
- Acute Tox. 3 H311 Toxic in contact with skin.
- corrosion
- Skin Corr. 1B H314 Causes severe skin burns and eye damage.
- environment
- Aquatic Acute 1 H400 Very toxic to aquatic life.
- Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects

2.2. Label elements

2.2.1. Pictogram



2.2.2.

- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.
- Hazard pictograms
GHS05 GHS06 GHS09
- Signal word Danger
- Hazard statements
H301+H311 Toxic if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
H410 Very toxic to aquatic life with long lasting effects.
- Precautionary statements
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substances
- CAS No. Description
101-83-7 N-Cyclohexylcyclohexanamine
- Identification number(s) None
- EC number: 202-980-7
- Index number: 612-066-00-3
- RTECS: HY4025000
- Additional information: For the wording of the listed hazard phrases refer to section 16.

3.1.1. Formula

C₁₂H₂₃N

3.1.2. Molecular Weight (g/mol)

181.32

3.1.3. CAS-No.

101-83-7

4. FIRST AID MEASURES

- 4.1 Description of first aid measures
- General information:
Immediately remove any clothing soiled by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:
Rinse mouth. Do not induce vomiting.
Call for a doctor immediately.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5. FIRE-FIGHTING MEASURES

- 5.1 Extinguishing media
- Suitable extinguishing agents:
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
- 5.3 Advice for firefighters
- Protective equipment: Wear self-contained respiratory protective device.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
- 6.2 Environmental precautions:
Inform respective authorities in case of seepage into water course or sewage system.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
- 6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling Store in cool, dry place in tightly closed receptacles.
- Information about fire - and explosion protection: No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
 - Requirements to be met by storerooms and receptacles:
Please refer to the manufacturers certificate for specific storage and transport temperature conditions.
- Store only in the original receptacle unless other advice is given on the CoA.
- Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
- Information about storage in one common storage facility: Store away from foodstuffs.
- Further information about storage conditions: Keep container tightly sealed.
- 7.3 Specific end use(s) No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace: Not required.
- Additional information: Lists used were valid at the time of SDS preparation.
- 8.2 Exposure controls
- Appropriate engineering controls No further data; see item 7.
- Individual protection measures, such as personal protective equipment
- General protective and hygienic measures:
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing
 - Wash hands before breaks and at the end of work.
 - Store protective clothing separately.
 - Avoid contact with the eyes.
 - Avoid contact with the eyes and skin.
- Respiratory protection:
 - Not required.
 - Use suitable respiratory protective device in case of insufficient ventilation.
- Hand protection
 - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
 - The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374
- Protective gloves
 - Material of gloves Fluorocarbon rubber (Viton)
 - Penetration time of glove material
- The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye/face protection
 - Tightly sealed goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties
- General Information
- Physical state Fluid
- Colour: Colourless
- Odour: Amine-like
- Odour threshold: Not determined.
- Melting point/freezing point: -2 °C
- Boiling point or initial boiling point and boiling range 255.8 °C
- Flammability Not determined.
- Lower and upper explosion limit
- Lower: 0.8 Vol %
- Upper: 4.6 Vol %

- Flash point: 99 °C
- Auto-ignition temperature: Not determined.
- Decomposition temperature: Not determined.
- pH 11
- Viscosity:
- Kinematic viscosity Not determined.
- Dynamic at 20 °C: 7.3 mPas
- Solubility
- water at 20 °C: 1 g/l
- Partition coefficient n-octanol/water (log value) Not determined.
- Vapour pressure at 25 °C: 0.04 hPa
- Density and/or relative density
- Density at 20 °C: 0.91 g/cm³
- Relative density Not determined.
- Vapour density Not determined.
- 9.2 Other information
- Appearance:
- Form: Liquid
- Important information on protection of health and environment, and on safety.
- Ignition temperature: 240 °C
- Explosive properties: Not determined.
- Change in condition
- Evaporation rate Not determined.
- Information with regard to physical hazard classes
- Explosives Not applicable
- Flammable gases Not applicable
- Aerosols Not applicable
- Oxidising gases Not applicable
- Gases under pressure Not applicable
- Flammable liquids Not applicable
- Flammable solids Not applicable
- Self-reactive substances and mixtures Not applicable
- Pyrophoric liquids Not applicable
- Pyrophoric solids Not applicable
- Self-heating substances and mixtures Not applicable
- Substances and mixtures, which emit flammable gases in contact with water Not applicable
- Oxidising liquids Not applicable
- Oxidising solids Not applicable
- Organic peroxides Not applicable
- Corrosive to metals Not applicable
- Desensitised explosives Not applicable

10. STABILITY AND REACTIVITY

- 10.1 Reactivity
Stable under normal conditions.
No further relevant information available.
- 10.2 Chemical stability Stable under normal conditions.
- Thermal decomposition / conditions to be avoided:
Formation of toxic gases is possible during heating or in case of fire.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid Heat.
- 10.5 Incompatible materials: Strong oxidizing agents.
- 10.6 Hazardous decomposition products:
Formation of toxic gases is possible during heating or in case of fire.

11. TOXICOLOGICAL INFORMATION

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- Acute toxicity Toxic if swallowed or in contact with skin
- LD/LC50 values relevant for classification:
 - Oral LD50 200 mg/kg (rat)
 - Dermal LD50 200-316 mg/kg (rabbit)
- Skin corrosion/irritation Causes severe skin burns and eye damage.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- 11.2 Information on other hazards
- Endocrine disrupting properties Substance is not listed.

12. ECOLOGICAL INFORMATION

- 12.1 Toxicity
 - Aquatic toxicity:
 - LC50/48 70.1 mg/l (crustacean)
 - EC50/48 h 43 mg/l (daphnia)
 - EC50/72h 3.3 mg/l (Algae)
 - LC50/96 h 32 mg/l (fish)
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment
 - PBT: Not applicable.
 - vPvB: Not applicable.
- 12.6 Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.
- 12.7 Other adverse effects
 - Remark: Very toxic for fish
 - Additional ecological information:
 - General notes:
 - Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water
 - Do not allow product to reach ground water, water course or sewage system.
 - Must not reach sewage water or drainage ditch undiluted or unneutralised.
 - Danger to drinking water if even small quantities leak into the ground.
 - Also poisonous for fish and plankton in water bodies.
 - Very toxic for aquatic organisms

13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods
 - Recommendation
 - Must not be disposed of together with household garbage. Do not allow product to reach sewage system
 - Uncleaned packaging:
 - Recommendation: Dispose of in accordance with national regulations.
 - Recommended cleansing agents: Water, if necessary together with cleansing agents.

14. TRANSPORT INFORMATION

- 14.1 UN number or ID number

- ADR, IMDG, IATA UN2565
- ADR 2565 DICYCLOHEXYLAMINE, ENVIRONMENTALLY HAZARDOUS
- IMDG DICYCLOHEXYLAMINE, MARINE POLLUTANT
- IATA DICYCLOHEXYLAMINE
- 14.3 Transport hazard class(es)
- ADR, IMDG
- Class 8 Corrosive substances.
- Label 8
- IATA
- Class 8 Corrosive substances.
- Label 8
- 14.4 Packing group
- ADR, IMDG, IATA III
- 14.5 Environmental hazards: Environmentally hazardous substance, liquid; Marine Pollutant
- Marine pollutant: Symbol (fish and tree)
- Special marking (ADR): Symbol (fish and tree)
- 14.6 Special precautions for user Warning: Corrosive substances.
- Hazard identification number (Kemler code): 80
- EMS Number: F-A,S-B
- Stowage Category A
- Segregation Code SG35 Stow "separated from" SGG1-acids
- 14.7 Maritime transport in bulk according to IMO instruments Not applicable
- Transport/Additional information:
- ADR
- Limited quantities (LQ) 5L
- Excepted quantities (EQ) Code: E1
- Maximum net quantity per inner packaging: 30 ml
- Maximum net quantity per outer packaging: 1000 ml
- Transport category 3
- Tunnel restriction code E
- UN "Model Regulation": UN 2 5 6 5 DICYCLOHEXYLAMINE , 8 , III , ENVIRONMENTALLY HAZARDOUS

15. REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I Substance is not listed.
- Seveso category E1 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

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. For lab use only!