



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.06.2021

Version number 1

Revision: 14.06.2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

· **Product name:** Dicyclohexylamine

· **Part number:** DRE-C12585000

· **CAS Number:**

101-83-7

· **EC number:**

202-980-7

· **Index number:**

612-066-00-3

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

No further relevant information available.

· **Application of the substance / the mixture** Reference material for laboratory use only

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

LGC Limited

Queens Road

Teddington

Middlesex TW11 0LY

UNITED KINGDOM

Tel : +44 (0) 20 8943 7000

Fax : +44 (0) 20 8943 2767

eMail : gb@lgcstandards.com

Web : www.lgcstandards.com

· **Further information obtainable from:**

Product safety department

eMail : sds-request@lgcgroup.com

· **1.4 Emergency telephone number:**

For Hazardous Materials or Dangerous Goods Incident

Spill, Leak, Fire Exposure, or Accident

Call CHEMTREC:

USA & Canada 1-800-424-9300

Rest of the world +1 703-741-5970

SECTION 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.

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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

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.

SECTION 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

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· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 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.

SECTION 5: Firefighting 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.

SECTION 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.

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See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 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 manufacturer's 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.

SECTION 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

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- **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.
- **Eyeface protection**



Tightly sealed goggles

SECTION 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/cm ³ |
| · Relative density | Not determined. |
| · Vapour density | Not determined. |

· 9.2 Other information

- | | |
|----------------------|--------|
| · Appearance: | |
| · Form: | Liquid |

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- **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

SECTION 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.

SECTION 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.

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· 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.

SECTION 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

SECTION 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.

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- **Uncleaned packaging:**
- **Recommendation:** Dispose of in accordance with national regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN number or ID number**
UN2565
- **ADR, IMDG, IATA**
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:

- **Marine pollutant:**
Environmentally hazardous substance, liquid; Marine Pollutant
- **Symbol (fish and tree)**
Symbol (fish and tree)
- **Special marking (ADR):**
Symbol (fish and tree)

· 14.6 Special precautions for user

- **Hazard identification number (Kemler code):**
Warning: Corrosive substances.
- **EMS Number:**
80
- **Stowage Category**
F-A,S-B
- **Segregation Code**
A
- **SG35 Stow "separated from" SGGI-acids**

· 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

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· 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 2565 DICYCLOHEXYLAMINE, 8, III,
ENVIRONMENTALLY HAZARDOUS**SECTION 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.**SECTION 16: Other information**

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/ or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. LGC makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise.

· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

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Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· **Sources**

Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.

· **Data compared to the previous version altered.** All sections have been updated.

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