

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 05 Jun 2023

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

N-Cyclohexyldimethylamine

1.1. Catalog No.:

675943

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

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
Flammable liquids (Category 3), H226
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 2), H330
Acute toxicity, Dermal (Category 3), H311
Skin corrosion (Sub-category 1B), H314
Short-term (acute) aquatic hazard (Category 1), H400

2.2. Label elements

2.2.1. Pictogram



2.2.2.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Signal Word Danger

Hazard statement(s)

H226 Flammable liquid and vapor.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H330 Fatal if inhaled.

H400 Very toxic to aquatic life.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard

Statements

none

Reduced Labeling (<= 125 ml)

Signal Word Danger

Hazard statement(s)

H330 Fatal if inhaled.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms : Cyclohexyldimethylamine Dimethylaminocyclohexane

Component: N,N-dimethylcyclohexylamine CAS-No. : 98-94-2 EC-No. : 202-715-5

Classification: Flam. Liq. 3; Acute Tox. 4; Acute Tox. 2; Acute Tox. 3; Skin Corr. 1B; Aquatic Acute 1; H226, H302, H330, H311, H314, H400

M-Factor - Aquatic Acute: 10

Concentration: <= 100 %

3.1.1. Formula

C8H17N

3.1.2. Molecular Weight (g/mol)

127.23

3.1.3. CAS-No.

98-94-2

4. FIRST AID MEASURES

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NO_x)

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air at elevated temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from

contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.
- 6.2 Environmental precautions
Do not let product enter drains. Risk of explosion.
- 6.3 Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.
- 6.4 Reference to other sections
For disposal see section 13.

7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling
Advice on safe handling
Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.
Advice on protection against fire and explosion
Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.
Hygiene measures
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.
- 7.2 Conditions for safe storage, including any incompatibilities
Storage conditions
Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.
Storage class
Storage class (TRGS 510): 3: Flammable liquids
- 7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters
Ingredients with workplace control parameters
- 8.2 Exposure controls
Personal protective equipment
Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves.

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Physical state clear, liquid

b) Color colorless

c) Odor No data available

d) Melting

point/freezing point

Melting point/range: -60 °C

e) Initial boiling point

and boiling range

158 - 159 °C - lit.

f) Flammability (solid, gas)

No data available

g) Upper/lower

flammability or

explosive limits

Upper explosion limit: 19 %(V)

Lower explosion limit: 3,6 %(V)

h) Flash point 39 °C - closed cup

i) Autoignition

temperature

No data available

j) Decomposition

temperature

No data available

k) pH 12 at 5 g/l at 20 °C

l) Viscosity Viscosity, kinematic: No data available

Viscosity, dynamic: 1,16 mPa.s at 25 °C

m) Water solubility No data available

n) Partition coefficient:

n-octanol/water

log Pow: 2,01

o) Vapor pressure 3,6 hPa at 20 °C

p) Density 0,849 g/cm³ at 25 °C - lit.

Relative density No data available

q) Relative vapor

density

No data available

r) Particle

characteristics

No data available

s) Explosive properties No data available

t) Oxidizing properties No data available

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Vapor/air-mixtures are explosive at intense warming.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines!

Violent reactions possible with:

Strong oxidizing agents

Isocyanates

acids

10.4 Conditions to avoid

Heating.

10.5 Incompatible materials

Metals

10.6 Hazardous decomposition products

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 348 mg/kg

LC50 Inhalation - Rat - 2 h - 1.889 mg/m3

Remarks: Behavioral: Muscle contraction or spasticity.

LD50 Dermal - Rat - 370 mg/kg

Remarks: Behavioral: Tremor.

Behavioral: Ataxia.

Prolonged skin contact may cause skin irritation and/or dermatitis.

Skin corrosion/irritation

Remarks: No data available

Serious eye damage/eye irritation

Remarks: No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain

components considered to have endocrine

disrupting properties according to REACH Article

57(f) or Commission Delegated regulation (EU)

2017/2100 or Commission Regulation (EU)

2018/605 at levels of 0.1% or higher.

RTECS: GX1198000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

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

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

No data available

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 2264 IMDG: 2264 IATA: 2264

14.2 UN proper shipping name

ADR/RID: N,N-DIMETHYLCYCLOHEXYLAMINE

IMDG: N,N-DIMETHYLCYCLOHEXYLAMINE

IATA: N,N-Dimethylcyclohexylamine

14.3 Transport hazard class(es)

ADR/RID: 8 (3) IMDG: 8 (3) IATA: 8 (3)

14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

14.6 Special precautions for user

Tunnel restriction code : (D/E)

Further information : No data available

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the

substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

: ACUTE TOXIC

: ENVIRONMENTAL HAZARDS

: FLAMMABLE LIQUIDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not 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!