Material Safety Data Sheet

Cyclohexylamine

Version: 2.0 EN

Revision Date: 2025-03

SECTION 1: IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1 Product identifiers

Product Name	Cyclohexylamine
CAS No	108-91-8
Synonyms	Aminocyclohexane

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

Recommended Use	Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company	China lithium Products technology Company Limited
	9 HG ,No.99 LuJiang Road ,Xiamen city ,China
Telephone	+86 592 2687860
Email	info@lithium-chemical.com

1.4 Emergency telephone number

Emergency phone #	+86 592 2687860

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Flammable liquids (Category 3), H226

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Dermal (Category 3), H311

Skin corrosion (Sub-category 1B), H314

Reproductive toxicity (Category 2), H361f

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H226	Flammable liquid and vapor
H301 + H311	Toxic if swallowed or in contact with skin
H314	Causes severe skin burns and eye damage

H361f	Suspected of damaging fertility.

Precautionary statement(s)

Prevention

P201	Obtain special instructions before use
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310 + P330	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.Rinse mouth.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
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 Hazards not otherwise classified (HNOC) or not covered by GHS

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.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substance name	Cyclohexylamine
Formula	C6H13N
CAS No	108-91-8
EC No	203-629-0

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Dry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NOx)

Combustible.

5.3 Advice for firefighters www.lithium-chemical.com

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place. Handle under inert gas. Protect from moisture. Air sensitive.

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Cyclohexylamine 108-91-8 TWA 10 ppm 41 mg/m3

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Form: liquid Color: colorless,yellow
Odour	amine-like
Melting point/freezing point	Melting point/range: -17 °C - lit
Initial boiling point and boiling range	134 °C - lit.
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 9.4 Lower explosion limit: 1.6 %(V)
Flash point	28 °C - closed cup
Autoignition temperature	293 °C
Decomposition temperature	No data available
PH	11.5 at 100 g/l at 20 °C

Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Water solubility	at 20 °C completely miscible
Partition coefficient: n-octanol/water	log Pow: 3.7 at 25 °C - Bioaccumulation is not expected.
Vapor pressure	14.3 hPa at 20 °C
Density	0.867 g/cm3 at 25 °C - lit.
Relative density	No data available
Relative vapor density	No data available
Particle characteristics	No data available
Explosive properties	No data available
Oxidizing properties	none

9.2 Other safety information

Surface tension	68.8 mN/m at 20 °C
Relative vapour density	3.42 - (Air = 1.0)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Strong oxidizing agents, Carbon dioxide (CO2), sodium hypochlorite, Organic acids, Mineral acids, Peroxides

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Product is corrosive to eyes, skin, mucous membranes, and other tissues. Contact will irritate or burn eyes and skin. Permanent damage to eyesight is possible. Permanent scars are possible. Damage (tissue corrosion) to critical respiratory or gastrointestinal systems is possible following overexposure by inhalation or ingestion. Symptoms of toxic effects following overexposure by skin contact ingestion, or inhalation include liver and kidney damage, CNS abnormalities, drowsiness, dizziness, cough, pulmonary edema, cyanosis of the extremities, diarrhea, nausea, and vomiting.

Carcinogenicity

No data available

Reproductive toxicity

Suspected of damaging the unborn child.

Suspected of damaging fertility.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Do not empty into drains. Contains a substance which is:. Harmful to aquatic organisms. The product contains substances which are hazardous for the environment

12.2 Persistence and degradability

Not known. Amine ingredients are biodegradable.

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 Other adverse effects

Harmful to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging

Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

DOT (US)

ADR/RID: 2357	UN proper shipping name: CYCLOHEXYLAMINE	Passenger Aircraft: No
Packaging group:II	Transport hazard class(es): 8 (3)	Environmental hazards: No

IMDG

IMDG: 2357	UN proper shipping name:CYCLOHEXYLAMINE	Passenger Aircraft: No
Packaging group:II	Transport hazard class(es):8 (3)	Environmental hazards: No

IATA

IATA: 2357	UN proper shipping name: Cyclohexylamine	Passenger Aircraft: No
Packaging group:II	Transport hazard class(es):8 (3)	Environmental hazards: No

SECTION 15: REGULATORY INFORMATION

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

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

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: OTHER INFORMATION

Further 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. China Lithium Product Technology Co., Ltd.(CLPC) and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.lithium-chemical.com for additional terms and conditions of sale.