

Material Safety Data Sheet
1,4-Cyclohexanediamine

Section 1 -chemical product and company Identification

MSDS Name: 1,4-Cyclohexanediamine
Catalog Numbers: 19955
Synonyms: 1,4-Diaminecyclohexane
Company Identification: China Langchem Inc.
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Section 2 -Composition,information on ingredients

CAS#	Chemical Name:	Purity	MDL#
3114-70-3	1,4-Cyclohexanediamine	98%	MFCD00035862

Hazard Symbols: Xn, F
Risk Phrases: 22 - 34

Section 3 - Hazards Identification

Eye: Causes eye irritation.
Skin: Causes skin irritation. May be harmful if absorbed through the skin.
Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.
Inhalation: Causes respiratory tract irritation. May be harmful if inhaled.

Section 4- First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Get medical aid. Wash mouth out with water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5- Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Section 6- Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container.

Section 7- Handling and storage

Handling: Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.

Storage: Fill it with argon and seal tight to store in a cool dark place. Keep it away from fire sources, such as fire or heat source.

Section 8- Exposure controls, personal protection

Engineering Controls

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: 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.

Section 9-Physical and chemical properties

Physical State: Solid

Color: White

Odor: Amine-like

Boiling Point: 197 deg C

Freezing/Melting Point: 47 deg C

Flash Point: Not available

Solubility in water: Freely soluble in water

Molecular Formula: C₆H₁₄N₂

Molecular Weight: 114.19

Section 10-Stability and Reactivity

Chemical Stability: Stable at normal conditions.

Conditions to Avoid: Incompatible materials.

Incompatibilities with Other Materials: Strong oxidizing agents, acids.

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides (NO_x).

Hazardous Polymerization: Has not been reported.

Section 11-Toxicological information

RTECS#: CAS# 3114-70-3: GU8750500.

LD50/LC50: RTECS: Not available.

Carcinogenicity: 1,4-Diaminocyclohexane - Not listed as a carcinogen by

ACGIH, IARC, NTP, or CA Prop 65.

Other: The toxicological properties have not been fully investigated.

Section 12-Ecological information

Not available

Section 13-Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14-Transport information

ADR/RID	IMDG	IATA
UN# 3259 PG III/ 8	UN# 3259 PG III/ 8	UN# 3259 PG III/ 8

Section 15-Regulatory information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Xn, F

Risk Phrases:

R 22 Harmful if swallowed.

R 34 Causes burns.

Safety Phrases:

S 23 Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer)

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

WGK (Water Danger/Protection)

CAS# 3114-70-3: 3

Canada

CAS# 3114-70-3: Not available

US Federal

TSCA

CAS# 3114-70-3 is not listed on the TSCA Inventory. It is for research and development use only.

Section 16- Other information

MSDS Creation Date: 2009-01-11

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.