



NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

Material Safety Data Sheet (MSDS)

Date of Issue: February 20, 2026 **Version:** 1.2 **Product:** L-Lysine (CAS 56-87-1) **Prepared by:** EHS Department, BioNutra Ingredients Co., Ltd. **Emergency Phone:** +86-21-5888-9999 (24h)

1. Identification

- **Product Name:** L-Lysine
- **CAS No.:** 56-87-1
- **EC No.:** 200-294-2
- **Molecular Formula:** C₆ H₁₄N₂O₂
- **Recommended Use:** Nutritional supplement, food additive, pharmaceutical intermediate.
- **Restrictions on Use:** Not for household use.

2. Hazards Identification

- **GHS Classification:** Not classified as hazardous under GHS (Regulation (EC) 1272/2008).
- **Label Elements:** No pictograms, no signal word, no hazard statements.
- **Precautionary Statements:** None required.
- **Potential Health Effects:** Generally regarded as safe (GRAS). May cause mild eye/skin irritation in sensitive individuals. Inhalation of dust may cause respiratory discomfort.

3. Composition/Information on Ingredients

- **Pure Substance:** 100% L-Lysine (CAS 56-87-1). No impurities of concern.

4. First-Aid Measures

- **Inhalation:** Remove to fresh air. If symptoms persist, seek medical advice.
- **Skin Contact:** Wash with plenty of soap and water. No special treatment required.
- **Eye Contact:** Rinse thoroughly with water for 10–15 minutes. If irritation persists, consult a physician.
- **Ingestion:** Rinse mouth with water. Give plenty of water to drink. No specific antidote required.

5. Fire-Fighting Measures

- **Flash Point:** Not flammable.
- **Extinguishing Media:** Use water spray, dry chemical, foam, or carbon dioxide.
- **Hazards in Fire:** Combustion may produce nitrogen oxides (NO_x).
- **Firefighter Precautions:** Wear self-contained breathing apparatus and protective clothing.

6. Accidental Release Measures

- **Personal Precautions:** Wear dust mask and gloves.
- **Environmental Precautions:** Prevent entry into drains, sewers, or water bodies.
- **Methods for Clean-Up:** Sweep up and collect in a closed container for disposal. Avoid creating dust.

7. Handling and Storage

- **Handling:** Avoid dust formation. Provide adequate ventilation. Wash hands after handling.
- **Storage:** Store in a cool, dry, well-ventilated area. Keep container tightly closed. Protect from moisture.



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- **Shelf Life:** 24 months from manufacture date when stored as directed.

8. Exposure Controls/Personal Protection

- **Occupational Exposure Limits:** No OEL established.
- **Engineering Controls:** Local exhaust ventilation if dust is generated.
- **Personal Protective Equipment:**
 - Eyes: Safety glasses.
 - Skin: Nitrile gloves.
 - Respiratory: Dust mask (P1) if needed.

9. Physical and Chemical Properties

- **Appearance:** White crystalline powder.
- **Odor:** Odorless.
- **pH:** 9.5 – 11.0 (5% w/v solution).
- **Melting Point:** 215°C (decomposes).
- **Solubility:** Freely soluble in water, slightly soluble in ethanol, insoluble in ether.
- **Specific Gravity:** ~1.25 (solid).
- **Vapor Pressure:** Negligible.

10. Stability and Reactivity

- **Stability:** Stable under normal conditions.
- **Hazardous Reactions:** No hazardous reactions known under normal use.
- **Incompatible Materials:** Strong oxidizing agents, strong acids.
- **Hazardous Decomposition Products:** NO_x, carbon monoxide (CO), carbon dioxide (CO₂).

11. Toxicological Information

- **Acute Toxicity:** LD₅₀ (oral, rat) > 5,000 mg/kg. Low toxicity.
- **Skin Irritation:** Non-irritating to rabbit skin.
- **Eye Irritation:** Slightly irritating to rabbit eyes.
- **Sensitization:** No known sensitizing effects.
- **Chronic Toxicity:** No adverse effects observed in long-term studies.

12. Ecological Information

- **Aquatic Toxicity:** Low toxicity to aquatic organisms.
- **Persistence and Degradability:** Readily biodegradable.
- **Bioaccumulation Potential:** Negligible.
- **Mobility in Soil:** May leach into groundwater due to high water solubility.

13. Disposal Considerations

- **Waste Disposal:** Dispose of in accordance with local, regional, and national regulations. Unused product can be recycled or donated. Contaminated waste should be incinerated at a licensed facility.
- **Container Disposal:** Rinse containers thoroughly before disposal. Recycle or dispose of as non-hazardous waste.



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14. Transport Information

- **UN Number:** Not required (non-hazardous).
- **UN Proper Shipping Name:** Not applicable.
- **Transport Class:** Not applicable.
- **Packing Group:** Not applicable.
- **Marine Pollutant:** No.
- **Special Precautions:** Protect from moisture during transport.

15. Regulatory Information

- **EU Regulation:** Complies with REACH (EC 1907/2006). Registered under CAS 56-87-1.
- **US FDA:** GRAS (21 CFR 172.320) for food use.
- **Other:** Complies with Codex Alimentarius Commission standards.

16. Other Information

- This MSDS is prepared in accordance with Regulation (EC) No. 1907/2006 (REACH) and GB/T 16483-2008.
- The information provided is based on the best available data as of the date of issue and is intended for professional use only.



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