



TECHNICAL DATA SHEET

1. Product Identification

Parameter	Description
Product Name	L-Arginine
Synonyms	2-Amino-5-guanidinovaleric acid
Chemical Formula	C ₆ H ₁₄ N ₄ O ₂
Molecular Weight	174.2
CAS No.	74-79-3
EINECS No.	200-811-1
EC Code	620-120-0
Grade Available	Feed Grade / Food Grade / Pharmaceutical Grade
HS Code	2922.49.0000

2. Product Description

L-Arginine is a semi-essential amino acid widely used in food, pharmaceutical, and feed industries. It serves as a precursor of nitric oxide (NO), promoting vasodilation and improving blood circulation.

In animal feed, it enhances growth, reproduction, and immune performance.

Jiangsu Khonor Chemicals Co., Limited provides high-purity L-Arginine through microbial fermentation, ensuring stable quality and reliable global supply.

3. Technical Specifications

Parameter	Specification	Test Method
Appearance	White crystalline powder	Visual
Assay (on dry basis)	≥ 98.5%	HPLC
Specific Rotation [α] _{20D}	+26.3° ~ +27.7°	USP
Loss on Drying	≤ 0.50%	USP
Residue on Ignition	≤ 0.10%	USP
Heavy Metals (as Pb)	≤ 10 ppm	ICP-MS
pH (1% solution)	10.5 ~ 12.0	USP
Chloride (Cl ⁻)	≤ 0.05%	USP
Sulfate (SO ₄ ²⁻)	≤ 0.03%	USP
Ammonium (NH ₄ ⁺)	≤ 0.02%	USP
Related Substances	≤ 0.5%	HPLC

3. Typical Applications

Field	Application Description
Feed Industry	Enhances protein synthesis, promotes growth, improves fertility and immunity in livestock and poultry.
Food & Nutrition	Used in dietary supplements and functional foods to support cardiovascular health and muscle recovery.
Pharmaceuticals	Used in nitric oxide boosters, infusion solutions, and metabolic regulation formulations.
Sports Nutrition	Common ingredient in pre-workout and muscle recovery formulas.

5. Mechanism of Action

L-Arginine acts as a precursor for **nitric oxide (NO)** synthesis, which regulates vascular relaxation and blood flow.

It also participates in the **urea cycle**, helping detoxify ammonia, and supports **protein synthesis** and **immune system regulation**.

6. Packaging and Storage

Packaging Type	Weight	Details
Kraft paper+PE bag	25 kg	Standard export packaging
Drum or customized bag	As required	OEM available

Storage Conditions:

Keep in a cool, dry, and ventilated place. Avoid exposure to moisture and sunlight.

Shelf life: **24 months** under proper storage conditions.

7. Safety and Handling

Non-hazardous under normal handling.

Avoid inhalation of dust; use appropriate protective equipment.

Refer to the Safety Data Sheet (MSDS) for detailed safety and regulatory information.

8. Regulatory Information

ISO / FAMI-QS Certified Manufacturer

GMP / HACCP standards applicable for Food and Pharma Grades

Non-GMO and Allergen-Free