

# L-LYSINE

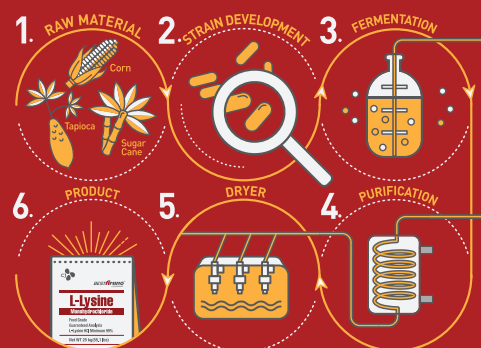
## WHAT IS L-LYSINE?

L-Lysine is the reference amino acid in modern animal nutrition; it must be provided in all types of animal feed to ensure optimal performance.

## UPGRADE YOUR DIET WITH CJ BIO —A GLOBAL AMINO ACID MARKET LEADER

### 01 Advanced fermentation technology

- CJ is the number one global bio company in the green bio market and a leader in the feed amino acid market.
- Fermentation has no adverse effects to the environment, while acid hydrolysis process causes environmental pollution.



### 02 Various specs for our customers

- CJ BIO offers L-Lysine in HCl, sulfate, liquid and other forms to meet the specific needs of our customers around the globe.

### 03 Stable supply of L-Lysine

- With five production spots around the world, we ensure stable supply of L-Lysine.



L-Lysine is an essential amino acid for monogastric animals. It cannot be synthesized by the organism and needs to be provided with the feed. Therefore, supplementation of free L-Lysine is required to fully tap the animals' growth potential. Lysine is the most limiting amino acid affecting protein deposition (muscle building, weight gain...). Essential amino acid requirement is expressed relatively to Lysine. CJ BIO's L-Lysine is produced by microbial fermentation with *Corynebacterium glutamicum* from natural raw materials.

## VARIOUS SPECS FOR OUR CUSTOMERS

Each L-Lysine form has its advantages, mainly depends on the feed type produced and available dosing equipment.

### • HCL

Pasuruan (Indonesia), Piracicaba (Brazil), Fort Dodge (USA), Shenyang, Liaocheng (China)

Guarantee	PS/PR/FD	SY/LC		
Lysine(%)	79	78.8	min	HPLC analysis, AOAC 999.13
Moisture(%)	1.0	1.0	max	105°C for 4 hours
Purity(%)	99.0	98.5	min	L-Lysine HCL on dry matter

### • Sulphate

Pasuruan(Indonesia), Piracicaba(Brazil), Liacheng(China)

Guarantee	PS/PR/LC			
Lysine(%)	55	min		HPLC analysis, AOAC 999.13
Moisture(%)	4	max		105°C for 4 hours
Purity(%)	70	min		L-Lysine HCL on dry matter

### • Liquid

Pasuruan (Indonesia), Piracicaba (Brazil), Fort Dodge (USA)

Guarantee	PS/PR/FD			
Lysine(%)	50	min		HPLC analysis, AOAC 999.13
Moisture(%)	50	max		105°C for 4 hours
Purity(%)	50	min		L-Lysine HCL on dry matter

### • L98

Piracicaba (Brazil)

Guarantee	PR			
Lysine(%)	78	min		HPLC analysis, AOAC 999.13
Moisture(%)	2	max		105°C for 4 hours
Purity(%)	98	min		L-Lysine HCL on dry matter

- This product contains 78% of lysine which is the same as the existing products. Unlike conventional products, HCL content is low and levels of other nutrients such as crude protein, energy and free amino acids are high.

## STABILITY OF SUPPLEMENT: CJ BIO'S LYSINE PRODUCTION SPOTS

