



PT CHEIL JEDANG INDONESIA

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January 11th, 2022

CERTIFICATE OF ANALYSIS

Commodity : **L-Arginine Hydrochloride**
Stuffing Date : January 07th, 2022
Production Date : October 09th, 2021
Lot. No. : BHB211009
Packaging : 25 KG/Drum Kraf
Quantity : 7.000 M/T (280 Drums)
Destination : Gebze, Turkey
Container No : EGHU 3632 098
Customer PO : 20210390
Manufactured by : PT. Cheil Jedang Indonesia

1. Description

Colourless or white crystals, or a white crystalline powder

2. Identification tests

Solubility : soluble in water, sparingly soluble in alcohol, and practically insoluble in ether.

3. Specification:

This product meets quality requirements of current USP 42, EP 9 and FCC monographs

No	Items	Limits	Results	
			BHB211009	
1	Assay (HPLC)	99.0 ~ 101.0 %	99.10	
2	Clarity and color of Solution	Passes test	Passes test	
3	Status of Solution	Not less than 98.0 %	98.97	
4	pH	4.7 ~ 6.2	5.20	
5	Bulk Density	g/ml	0.64	
6	Specific Optical Rotation	20°C: +22.1° ~ +22.9°	+22.41	
7	Loss on Drying (105°C, 3 hrs)	Not more than 0.2%	0.18	
8	Identification	Conform to USP STD	Passes test	
9	Inorganic Impurities	Residue on ignition	Not more than 0.1 %	0.079
		Chloride	16.6 ~ 17.0%	16.85
		Sulfate	Not more than 0.02 %	Passes test
		Ammonium	Not more than 0.02 %	Passes test
		Heavy metals	Not more than 5.0 ppm	Passes test
		Lead	Not more than 0.5 ppm	Passes test
		Arsenic	Not more than 1.0 ppm	Passes test
		Cadmium	Not more than 0.5 ppm	Passes test
		Mercury	Not more than 0.1 ppm	Passes test
10	Chromatographic impurity	Individual	Not more than 0.5%	Not detected
		Total	Not more than 2.0%	Not detected
11	Organic volatile impurities	Meets the requirement	Passes test	
12	Microbiology	Total Viable Count	Not more than 100 cfu/g	< 10
		Yeast & Mould	Negative/g	Negative
		Coliforms	Negative/g	Negative
		Salmonella	Negative/25g	Negative
		E.coli	Negative/g	Negative
		Staphylococcus aureus	Negative/g	Negative
		B. cereus	Negative/g	Negative
		C. perfringens	Negative/g	Negative
		C. botulinum	Negative/g	Negative
		Enterobacteriaceae	Negative/10g	Negative
13	Expired	Years	5 (Five)	October 08 th , 2026
14	Quantity	M/T		7.000

We certify that the quality of this product conforms to USP, EP and FCC.

L-Arginine Hydrochloride will remain stable and effective for 5 years or more from the date of production

when stored in a cool, dry environment

PT.CJ INDONESIA



Yun Taek Oh
Marketing Manager



Fablyan Bani Adam
QC Manager