



**PT CHEIL JEDANG INDONESIA**

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R10246 R20638

October 18<sup>th</sup>, 2021

**CERTIFICATE OF ANALYSIS**

Commodity : **L-Arginine Hydrochloride**  
Stuffing Date : October 14<sup>th</sup>, 2021  
Production Date : **September 07<sup>th</sup>, 2021**  
Lot. No. : **BH8F210907**  
Packaging : 25 KG/Drum Kraf  
Quantity : 4.750 M/T (190 Drums)  
Destination : **New York, USA**  
Container No : TRHU 6982 202  
CJ America PO : 5500271927  
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
			BH8F210907
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%	99.57
4	pH	4.7 ~ 6.2	5.64
5	Bulk Density	- g/ml	0.68
6	Specific Optical Rotation	20°C, +22.1° ~ +22.9°	+22.31
7	Loss on Drying (105°C, 3 hrs)	Not more than 0.2%	0.12
8	Identification	Conform to USP STD	Passes test
9	Inorganic impurities	Residue on ignition	Not more than 0.1%
		Chloride	16.6 ~ 17.0%
		Sulfate	Not more than 0.02%
		Ammonium	Not more than 0.02%
		Heavy metals	Not more than 5.0 ppm
		Lead	Not more than 0.5 ppm
		Arsenic	Not more than 1.0 ppm
		Cadmium	Not more than 0.5 ppm
		Mercury	Not more than 0.1 ppm
		Iron	Not more than 10.0 ppm
10	Chromatographic impurity	Individual	Not more than 0.5%
		Total	Not more than 2.0%
11	Organic volatile impurities	Meets the requirement	Passes test
12	Microbiology	Total Viable Count	Not more than 100 cfu/g
		Yeast & Mould	Negative/g
		Coliforms	Negative/g
		Salmonella	Negative/25g
		E.coli	Negative/g
		Staphylococcus aureus	Negative/g
		B. cereus	Negative/g
		C. perfringens	Negative/g
		C. botulinum	Negative/g
		Enterobacteriaceae	Negative/10g
13	Expired	Years	5 (Five)
14	Quantity	M/T	4.750

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



Hwang In Hwang  
Director



QC Manager

Handwritten signature and initials