

CERTIFICATE OF ANALYSIS

Product and Batch Informations

L-Arginine

ref: ARGIN001

N C	Batch	BHAD200810	Origin (natural/synthetic)	Natural from vegetable
	° AS	74-79-3	Country of origin	Chi ra
	MF date	10/08/2020	Expiration date	09/08/2025

ANALYSIS ITEM SPECIFICATION RESULT TEST METHOD

Active Ingredients/Substance to control

Assay	98.5 ~ 101.0 %	99,37%	HPLC
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Physical/Chemical Control

Appearance	White or almost white crystalline powder	Complies	Visual inspection
Identification	Positive	complies	IR
Loss on drying	NMT 0,5%	0,15%	105°C - 3 hours
pH	10,5-12,0	11,18	USP 42 /EP 9
Status of solution	NLT 98%	99,03%	USP 42 /EP 9
Density	0,5-0,7g/ml	0,60 g/mL	USP 42 /EP 9
Optical rotation	20°C: +26,0° - +27,9° 25°C: +26,3° - +27,7°	+27,34° +26,80°	USP 42 /EP 9

Contaminant Control*

Residue on ignition	NMT 0,3%	Complies	USP 42 /EP 9
Chloride	NMT 0,02%	Complies	USP 42 /EP 9
Sulfate	NMT 0,03%	Complies	USP 42 /EP 9
Ammonium	NMT 0,02%	Complies	USP 42 /EP 9
Iron	NMT 10ppm	Complies	USP 42 /EP 9
Heavy metals	NMT 10ppm	Complies	USP 42 /EP 9
Lead (Pb)	NMT 3ppm	Complies	USP 42 /EP 9
Arsenic (As)	NMT 2ppm	Complies	USP 42 /EP 9
Cadmium(Cd)	NMT 1ppm	Complies	USP 42 /EP 9
Mercury (Hg)	NMT 0,1ppm	Complies	USP 42 /EP 9
Ninhydrin-positive substance	Individual: NMT 0,2% Total: NMT 2%	Complies	USP 42 /EP 9
Organic volatile	Meets EP requirements	Complies	USP 42 /EP 9

Microbiological Control

Total aerobic microbial	NMT 20 000 cfu/g	Complies	USP 42 /EP 9
Tot. yeast and mould	NMT 200 cfu/g	Complies	USP 42 /EP 9
Enterobacteriaceae	Negative	Complies	USP 42 /EP 9
Salmonella	Negative	Complies	USP 42 /EP 9
E.Coli	Negative	Complies	USP 42 /EP 9
Staphylococcus	Negative	Complies	USP 42 /EP 9

Allegations

Allergens	Allergen free/specify if any
GMO	No OGM
Irradiation	No irradiation

Packing and Storage

Packing	Suitable for food industry
Storage	Store in dry places and keep away from strong direct light and heat.

*According to a control plan